



SAN FRANCISCO PLANNING DEPARTMENT

May 5, 2016

Jonas Ionin
Planning Commission Secretary
1650 Mission Street, 4th Floor
San Francisco, CA 94103

Re: Notice of Hearing and Notice of Availability of a Draft Environmental
Impact Report (DEIR) for the 1979 Mission Street Mixed Use Project
Department Case File No. 2013.1543E

Dear Mr. Ionin:

Pursuant to the San Francisco Administrative Code Chapter 31, the enclosed notice of hearing and the associated environmental review document are being forwarded to you for distribution to the Planning Commission.

The public hearing on the Draft Environmental Impact Report for this project is scheduled before the Planning Commission on the June 9, 2016.

Please note that the public review period for this DEIR is from May 5, 2016 to 5:00 p.m. on Tuesday, July 5, 2016. This is an approximately 60-day public review period.

If you have any questions related to this project's environmental evaluation, please contact me at debra.dwyer@sfgov.org or 415-575-9031.

Sincerely,

A handwritten signature in cursive script that reads "Debra Dwyer".

Debra Dwyer
Environmental Planner

enclosures

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

Reception:
415.558.6378

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415.558.6409

Planning
Information:
415.558.6377

The attached notice of availability of a Draft Environmental Impact Report (DEIR) is provided under the California Environmental Quality Act and San Francisco Administrative Code Chapter 31. It concerns property located at 1979 Mission Street (2013.1543E). Public comments on the DEIR may be provided in writing to the Planning Department until 5:00 p.m. on 7/5/2016. Also, there will be a hearing at the San Francisco Planning Commission to receive oral public comment on the DEIR at its regular meeting on 6/9/2016.

To obtain information about this notice in Spanish or Chinese, please call (415) 575-9010. To obtain information about this notice in Filipino, please call (415) 575-9121. Please be advised that the Planning Department will require at least one business day to respond to any call.

根據加州環境質量法和舊金山行政法典,第31章規定,它涉及物業位於 1979 Mission 街 (2013.1543E)。以上所附通知的草案環境影響報告書 (DEIR) 的可用性,。如有提供任何意見,可向規劃署以書面報告,直到下午五時2016年7月5日終止。此外,還有在舊金山計劃委員DEIR 公眾的聽證會,將要在2016年6月9日舉行,可接受民眾意見。

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El documento adjunto es un aviso que está disponible el Reporte Ambiental (Draft Environmental Impact Report (DEIR)) ya que es un requisito de la ley de California por el Impacto Ambiental (California Environmental Quality Act) y el Capítulo 31 del Código Administrativo de San Francisco (San Francisco Administrative Code Chapter 31. Conciene la propiedad localizada en el 1979 Mission Street (2013.1543E). Comentarios del público sobre este documento se pueden hacer por escrito al Departamento do Planeación (San Francisco Planning Department) con fecha límite del Julio 5, 2016 hasta las 5:00 p.m. También habrá una audiencia en la junta de la Comisión de San Francisco (San Francisco Planning Commission) en donde el público puede dar sus comentarios acerca de este documento en su junta regular de Junio 9, 2016.

Para obtener más información sobre esta notificación en español, llame al siguiente teléfono (415) 575-9010. Por favor tome en cuenta que le contestaremos su llamada en un periodo de 24 horas.

Ang mga nakalakip na paunawa ng availability ng isang Draft Environmental Impact Report (DEIR) ay ibinigay sa ilalim ng California Environmental Quality Act at San Francisco Administrative Code Chapter 31. Ito ay may kinalaman sa ari-arian na matatagpuan sa 1979 Mission Street (2013.1543E). Public komento sa DEIR ay maaaring ibigay sa sulat sa Planning Department hanggang 17:00 sa 2016/07/05 . Gayundin, magkakaroon ng pagdinig sa San Francisco Planning Commission upang makatanggap oral pampublikong komento sa DEIR sa kanyang regular na pulong sa 2016/06/09.

Para humiling ng impormasyon tungkol sa paunawang ito sa Tagalog, paki tawagan ang (415) 575-9121. Mangyaring tandaan na mangangailangan ang Planning Department ng di-kukulangin sa isang araw ng pangangalakal para makasagot sa anumang tawag.



SAN FRANCISCO PLANNING DEPARTMENT

1650 Mission Street, Suite 400 • San Francisco, CA 94103 • Fax (415) 558-6409

NOTICE OF PUBLIC HEARING AND AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT

Hearing Date: **Thursday, June 9, 2016**
Time: **Not before 12:00 PM (noon)**
Location: **City Hall, 1 Dr. Carlton B. Goodlett Place, Room 400**
Case Type: **Environmental (Draft Environmental Impact Report)**
Hearing Body: **Planning Commission**

PROPERTY INFORMATION	APPLICATION INFORMATION
Project Address: 1979 Mission Street Cross Street(s): 16th Street and Capp Street Block /Lot No.: 3553/052 Zoning District(s): 105-E/55 X Height and Bulk District Plan Area: Mission Area Plan of the Eastern Neighborhoods Rezoning and Area Plans	Case No.: 2013.1543E Building Permit: N/A Applicant/Agent: Bert Polacci Maximus-BP 1979 Mission Street, LLC Telephone: (415) 316-0122 E-Mail: info@1979mission.com

PROJECT DESCRIPTION

A draft environmental impact report (EIR) has been prepared by the San Francisco Planning Department in connection with this project.

The 57,312 square foot project site is in the Inner Mission neighborhood and forms the northern and eastern boundaries of the northeastern entrance to the 16th Street Mission Bay Area Rapid Transit District Station Plaza (BART plaza). The Proposed Project would demolish the two existing commercial buildings and surface parking lot on the site, and construct a new, 331 unit mixed use residential building with ground floor retail, ranging in height from 4 to 10 stories, with a maximum height of 105 feet, and a total height of 121 feet at the elevator penthouse. The Proposed Project would be an approximately 388,912 gross square foot (gsf) mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the northeast BART plaza. Code compliant common and private usable open space, including balconies, roof terraces, and a portion of the interior podium courtyard, would be provided as part of the Proposed Project. The Proposed Project would include approximately 291,027 gsf of residential uses (331 dwelling units), and approximately 34,198 gsf of commercial uses (within multiple tenant spaces). Approximately 63,687 gsf of parking and building services would be located in the basement and ground floor, including 163 parking spaces (136 for residential use, 22 for commercial use, four for car share use, and one Americans with Disabilities Act [ADA] accessible van parking space), three freight loading spaces, 162 Class I bicycle parking spaces, and mechanical/electrical equipment. In addition, 30 Class II bicycle parking spaces would be provided in two on-street bicycle corrals. The proposed bicycle corrals would be located in the parking lane: one on Mission Street north of the existing transit stop, and one on Capp Street.

DRAFT EIR: The Draft EIR finds that implementation of the proposed project would lead to significant unavoidable project-level and cumulative impacts related to shadow. The Draft EIR including a detailed project description is available for public review and comment on the Planning Department's website at <http://www.sf-planning.org/sfceqadocs>.

The purpose of the public hearing is for the Planning Commission and Department staff to receive comments on the adequacy of the EIR. The Planning Commission will not respond to any of the comments or take action on the project at this hearing. The Planning Commission will consider certification of the Final EIR at a later hearing. Contact the planner below if you wish to be on the mailing list for future notices regarding this project.

Public comments on the Draft EIR will be accepted from May 5, 2016 to 5:00 p.m. on July 5, 2016.

FOR MORE INFORMATION OR TO SUBMIT COMMENTS ON THE EIR, PLEASE CONTACT:

Planner: Debra Dwyer, 1650 Mission Street, Suite 400, San Francisco, CA 94103-9425 **Telephone:** (415) 575-9031

E-Mail: debra.dwyer@sfgov.org

中文詢問請電: (415) 575-9010

Para información en Español llamar al: (415) 575-9010

GENERAL INFORMATION ABOUT PROCEDURES

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.

Only commenters on the Draft EIR will be permitted to file an appeal of the certification of the Final EIR to the Board of Supervisors.

Copies of the Draft EIR are available at the Planning Information Center (PIC) counter on the first floor of 1660 Mission Street, San Francisco, and referenced materials are available for review at the Planning Department (call the planner listed below). Written comments should be addressed to Sarah B. Jones, Environmental Review Officer, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103, or emailed to sarah.b.jones@sfgov.org. Comments received at the public hearing and in writing will be responded to in a Responses to Comments (RTC) document.

Template revised 3/19/15

The attached notice of availability of a Draft Environmental Impact Report (DEIR) is provided under the California Environmental Quality Act and San Francisco Administrative Code Chapter 31. It concerns property located at 1979 Mission Street (2013.1543E). Public comments on the DEIR may be provided in writing to the Planning Department until 5:00 p.m. on 7/5/2016. Also, there will be a hearing at the San Francisco Planning Commission to receive oral public comment on the DEIR at its regular meeting on 6/9/2016.

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DRAFT ENVIRONMENTAL IMPACT REPORT

1979 Mission Street Mixed-Use Project

CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT
CASE NO. **2013.1543E**

STATE CLEARINGHOUSE NO. 2015012059



SAN FRANCISCO
PLANNING
DEPARTMENT

Draft EIR Publication Date:	May 4, 2016
Draft EIR Public Hearing Date:	June 9, 2016
Draft EIR Public Comment Period:	May 5, 2016 – July 5, 2016

Written comments should be sent to:

Sarah B. Jones Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103
or Sarah.B.Jones@sfgov.org

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SAN FRANCISCO PLANNING DEPARTMENT

DATE: May 4, 2016
TO: Distribution List for the 1979 Mission Street Mixed Use Project Draft EIR
FROM: Sarah B. Jones, Environmental Review Officer
SUBJECT: Request for the Final Environmental Impact Report for the 1979 Mission Street Mixed Use Project (Planning Department File No. 2013.1543E)

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

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This is the Draft of the Environmental Impact Report (EIR) for the 1979 Mission Street Mixed Use Project. 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 requested. 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 2 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.

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DRAFT ENVIRONMENTAL IMPACT REPORT

1979 Mission Street Mixed-Use Project

CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT
CASE NO. **2013.1543E**

STATE CLEARINGHOUSE NO. 2015012059



SAN FRANCISCO
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or Sarah.B.Jones@sfgov.org

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1979 MISSION STREET MIXED-USE PROJECT

Draft EIR

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Appendix E	Shadow Evaluation of Alternatives for the 1979 Mission Street Project

LIST OF ACRONYMS AND ABBREVIATIONS

ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BART Plaza	northeastern entrance to the 16th Street Mission BART Station
Better Streets Plan	San Francisco Better Streets Plan
bgs	below ground surface
CBC	California Building Code
CEQA	California Environmental Quality Act
City	City of San Francisco
Climate Action Plan	Climate Action Plan for San Francisco: Local Actions to Reduce Greenhouse Emissions
CPE	Community Plan Exemption
DBI	Department of Building Inspection
Eastern Neighborhoods PEIR	Programmatic Environmental Impact Report for the Eastern Neighborhoods Rezoning and Area Plans
EIR	Environmental Impact Report
General Plan	San Francisco General Plan
GHG	greenhouse gas
gsf	gross square feet
lbs/day	pounds per day
LEED	Leadership in Energy and Environmental Design
LOS	level of service
Mission NCT	Mission Street Neighborhood Commercial Transit
mph	miles per hour
Muni	San Francisco Municipal Railway
MTC	Metropolitan Transportation Commission
NOP	Notice of Preparation
NO _x	oxides of nitrogen
PDR	production, distribution, and repair
Plan area	Eastern Neighborhoods Rezoning and Area Plan area
Plan Bay Area	Plan Bay Area Sustainable Communities Strategy
Planning Code	San Francisco Planning Code
Planning Commission	San Francisco Planning Commission
Planning Department	San Francisco Planning Department
PM _{2.5}	particulate matter less than or equal to 2.5 microns in diameter
PM ₁₀	particulate matter less than or equal to 10 microns in diameter
ROG	reactive organic gas
RWDI	Rowan Williams Davies & Irwin Inc.
RWQCB	Regional Water Quality Control Board
SDC	Seismic Design Category
sfh	square-foot-hour
SFMTA	San Francisco Municipal Transportation Agency
SFUSD	San Francisco Unified School District
TAAS	Theoretical Available Annual Sunlight

TEP	Transit Effectiveness Project
VMT	vehicle miles traveled
ZOI	zone of influence

Summary

This chapter provides an overview of the topics and issues addressed in this Environmental Impact Report (EIR), which has been prepared for the 1979 Mission Street Mixed Use Project (Proposed Project). This chapter includes a summary of the Proposed Project, a list of the Proposed Project's impacts, level of significance of the environmental impacts, applicable mitigation measures, the alternatives to the Proposed Project that are analyzed in this EIR, and a comparison of their impacts to those of the Proposed Project, a summary of environmental issues to be resolved, and areas of controversy.

The San Francisco Planning Department (Planning Department) is the lead agency responsible for preparing this EIR, in compliance with the California Environmental Quality Act (CEQA). This is a focused EIR which discloses to the public and decisionmakers the impacts of the Proposed Project on wind, shadow, and geology and soils that are peculiar to the project site and that were not fully anticipated or disclosed in the Programmatic Environmental Impact Report for the Eastern Neighborhoods Rezoning and Area Plans (Eastern Neighborhoods PEIR).¹ As determined in the Community Plan Exemption (CPE) Checklist prepared for the Proposed Project, which is included in Appendix A of this document with the Notice of Preparation (NOP) of an EIR, all other potential impacts of the Proposed Project are adequately addressed in the Eastern Neighborhoods PEIR.

A. Project Synopsis

The project site is in the Inner Mission neighborhood (Assessor's Block 3553, Lot 052), on the block bounded by Mission Street to the west, 16th Street to the south, Capp Street to the east, and 15th Street to the north. The 57,312 square foot project site forms the northern and eastern boundaries of the street level plaza and northeastern entrance to the 16th Street Mission Bay Area Rapid Transit (BART) Station. The Proposed Project would demolish the two existing commercial buildings and a surface parking lot on the site, and construct a new, 331 unit mixed use residential building with ground floor retail, ranging in height from 4 to 10 stories, with a maximum height of 105 feet, and a total height of 121 feet at the elevator penthouse. The Proposed Project would be an approximately 388,912 gross square foot (gsf) mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza. Code compliant common and private usable open space, including balconies, roof terraces, and a portion of the

¹ San Francisco Planning Department, 2008. Eastern Neighborhoods Rezoning and Area Plans Programmatic Environmental Impact Report, Planning Department Case No. 2004.0160E, certified August 7, 2008. The Eastern Neighborhoods PEIR is on file for public review at the Planning Department, 1650 Mission Street, Suite 400, as part of Case No. 2004.0160E, or at www.sfgov.org/site/planning_index.asp?id=67762.

interior podium courtyard, would be provided as part of the Proposed Project. The Proposed Project would include approximately 291,027 gsf of residential uses (331 dwelling units), and approximately 34,198 gsf of commercial uses (with multiple tenant spaces). Approximately 63,687 gsf of parking and building services would be located in the basement and ground floor, including 163 parking spaces (136 for residential use, 22 for commercial use, four for car share use, and one Americans with Disabilities Act [ADA] accessible van parking space), three freight loading spaces, 162 Class I bicycle parking spaces, and mechanical/electrical equipment.² In addition, 30 Class II bicycle parking spaces would be provided in two on street bicycle corrals.³ The proposed bicycle corrals would be located in the parking lane: one on Mission Street north of the existing transit stop, and one on Capp Street.

The proposed building would have three separate residential structural components above the podium level (level 2), with an interior courtyard on level 2 and roof decks that would provide open space for Project residents. These residential components include the six to ten story Mission Street residential component, the seven to ten story 16th Street residential component and the four to five story Capp Street residential component. The Mission and 16th Street residential components would each have a maximum height of 105 feet, with a total height of 121 feet at the elevator penthouse. The Capp Street residential component would have a maximum height of 55 feet reaching 71 feet at the elevator penthouse.

The project site is in the Mission Area Plan of the Eastern Neighborhoods Rezoning and Area Plans and in the Mission Street Neighborhood Commercial Transit Zoning District. The portions of the site along Mission and 16th Streets are in a 105-E height and bulk district, and the Capp Street portion is in a 55-X height and bulk district.⁴ The project site is in three special use districts: the Mission Street Formula Retail Restaurant Subdistrict, the Mission Alcohol Restricted Use District, and the Fringe Financial Service Restricted Use District. The Proposed Project would require authorization for a Planned Unit Development (Planning Code Section 304) and conditional use authorization (Planning Code Section 303) exceptions from lot size limit (Planning Code Section 121.1) and use size limit (Planning Code Sections 121.2 and 121.6), rear yard size and location (Planning Code Section 134), bay window width and separation (Planning Code Section 136[c][2]), bulk limitations (Planning Code Section 270), and dwelling unit exposure to open space (Planning Code Section 140). In addition, the Proposed Project would require approvals and permits from the Planning Department, the Department of Building Inspection (DBI), the San Francisco Municipal Transportation Agency (SFMTA) Board of Directors, the San Francisco Public Works Bureau of Street Use and Mapping, the San Francisco Public Utilities Commission, the San Francisco Department of Public Health, the San Francisco Board of Supervisors, Bay Area Air Quality Management District, and BART's permit review division.

² Class I bicycle parking is a space 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 (Planning Code Section 155.1).

³ Class II is a space in a publicly accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building (Planning Code Section 155.1).

⁴ The E bulk designation limits the portion of a building that is over 65 feet tall to a maximum length of 110 feet and a maximum diagonal dimension of 140 feet; and the X bulk designation has no bulk controls (Planning Code Section 270).

B. Summary of Impacts, Mitigation Measures, and Improvement Measures

Based on the findings in the CPE Checklist prepared for the Proposed Project, the Planning Department determined that the Proposed Project could result in significant impacts associated with wind, shadow, and geology and soils that are peculiar to the project site and that were not identified in the Eastern Neighborhoods PEIR. All other environmental topics have been addressed in the CPE Checklist. The Planning Department published an NOP of an EIR with a CPE Checklist on January 28, 2015, announcing its intent to prepare and distribute a focused EIR (the NOP and CPE Checklist are presented as Appendix A to this EIR).

Table S-1 summarizes all impacts identified for the Proposed Project and lists their levels of significance. For any impacts found to be significant, corresponding mitigation measures are included, and the level of significance after mitigation is indicated. As shown in Table S-1, the Proposed Project would have a significant and unavoidable Project level impact related to shadow.

The CPE Checklist identified mitigation measures from the Eastern Neighborhoods PEIR that would apply to the Proposed Project. The CPE Checklist also included Project improvement measures that would further reduce less than significant impacts. These mitigation and improvement measures are summarized in Table S-2 and Table S-3 respectively, and are not further addressed in this EIR. However, these measures will be included in the Mitigation Monitoring and Reporting Program, for consideration at the Planning Commission hearing of Project approvals.

Table S-4 compares key elements of the alternatives to the Proposed Project, and Tables S-5 and S-6 compare the impacts of alternatives.

Table S-1
Summary of Impacts and Mitigation Measures Identified in the EIR

Environmental Impacts	Impact Significance Prior to Mitigation Measure	Mitigation Measures	Level of Significance after Mitigation
Wind and Shadow			
Impact WS-1: The Proposed Project would not alter wind in a manner that substantially affects public areas in the vicinity of the project site.	LS	None required.	LS
Impact C-WS-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects, would not alter wind in a manner that substantially affects public areas in the vicinity of the project site.	LS	None required.	LS
Impact WS-2: The Proposed Project would create new shadow in a manner that could substantially affect the Marshall Elementary School outdoor recreation facilities and open space.	S	No feasible mitigation measure available.	SU
Impact WS-3: The Proposed Project would not create new shadow in a manner that would substantially affect the 16th Street Mission BART Station plazas.	LS	None required.	LS
Impact C-WS-2: The Proposed Project would have a cumulatively considerable contribution to significant cumulative shadow impacts, substantially affecting outdoor recreation facilities and open space.	S	No feasible mitigation measure available.	SU
Geology and Soils			
Impact GE-1: The Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture, ground shaking, liquefaction, or landslides.	LS	None required.	LS

Table S-1
Summary of Impacts and Mitigation Measures Identified in the EIR (Continued)

Environmental Impacts	Impact Significance Prior to Mitigation Measure	Mitigation Measures	Level of Significance after Mitigation
Impact GE-2: The Proposed Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project.	LS	None required.	LS
Impact GE-3: The Proposed Project could impose lateral surcharge pressures on the BART subway.	S	<p>M-GE-3: Design Approval and Construction Monitoring for BART Subway Structure</p> <p>Prior to submission of structural plan addendum to the site permit for the Proposed Project to DBI, the Project Sponsor shall submit such plans to BART for its review and approval to ensure that the plans comply with BART guidelines for the construction activity in the BART Zone of Influence (ZOI), including the General Guidelines for Design and Construction Over or Adjacent to BART's Subway Structures, and Procedures for Permit and Plan Review.⁵</p> <p>The Project Sponsor and their structural engineer shall coordinate with BART to determine which of the following guidelines must be included in the plans to be submitted to BART for review:</p> <ul style="list-style-type: none"> • Geologic Hazards Evaluation and Geotechnical Investigation reports, which shall include an engineering geology map, a site plan showing the location of subway structures and BART easement, a soil reworking plan, and the geological conclusion and recommendations; • Dewatering monitoring and recharging plans; • A vibration monitoring plan and/or movement and deformation monitoring plans for steel lined tunnels. These plans shall include locations and details of instruments in subways; • A foundation plan showing the anticipated total foundation loads; • An excavation plan for area in the ZOI, showing excavation slope or shoring system; and • A description of the procedures and control of the soil compaction operation. <p>The Project Sponsor and their consultant shall monitor the groundwater level in the BART ZOI, and piezometers shall be installed on the Mission Street sidewalk adjacent to the site if requested by BART.</p> <p>The following guidelines would apply to the adjacent property owners within 50 feet of the project site:</p> <p>Prior to start of construction, the Project Sponsor shall engage the service of a licensed land surveyor to prepare a pre-construction survey of the adjacent permanent structures within 50 feet of the project site by a licensed surveyor. The scope of the pre-construction survey shall include, but shall not be limited to, the following tasks.</p> <ul style="list-style-type: none"> • Establish survey measurements of the exterior elevations of adjacent properties to monitor any movement or settlement of adjacent permanent structures during excavation. 	LSM

⁵ BART (Bay Area Rapid Transit District), 2012. Procedures for Permit and Plan Review. June. Available online at: bart.gov/sites/default/files/docs/Permits_and_Plan_Review_062012.pdf. This document is available for review along with all other case materials at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

BART (Bay Area Rapid Transit District), 2003. General Guidelines for Design and Construction over or Adjacent to BART's Subway Structures. July. Available online at: bart.gov/sites/default/files/docs/Gen_Guide_Subway_062012.pdf and as part of the case file.

Table S-1
Summary of Impacts and Mitigation Measures Identified in the EIR (Continued)

Environmental Impacts	Impact Significance Prior to Mitigation Measure	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> Photograph and/or video the exterior and interior of the adjacent permanent structures which shall provide a complete documentation of existing conditions prior to commencement of the Work. The photographic and video survey shall be adequate in scope to provide a legally binding "before and after" comparison of the conditions of the adjacent permanent structures. The Project Sponsor shall provide copies of the survey report, photographs and video and all other documents disclosing the results of the pre-construction inspection to the adjacent property owners within 5 working days of receipt from the surveyor. Provide the adjacent property owners with the business addresses, telephone numbers, and names of (i) the shoring and underpinning engineer for the Project; and (ii) the contact persons for the general contractor and the subcontractor(s) responsible for completing the work at least 5 working days prior to commencement of the work. Install inclinometers and piezometers if necessary to monitor movement of the shoring system and to monitor groundwater levels, respectively, during excavation and construction. Notify the adjacent property owners of any change order affecting the scope of the work or the plans within 3 calendar days of such changes being proposed. <p>Upon start of construction, the Project Sponsor's licensed land surveyor shall perform the following tasks.</p> <ul style="list-style-type: none"> Monitor the adjacent permanent structures within 50 feet of the project site. Monitoring shall be performed weekly until shoring and underpinning work has been completed; thereafter, monitoring shall be performed monthly during construction of foundation and retaining walls. In the event that there is more than one-half inch of lateral movement, or one-quarter inch of vertical movement, the Project Sponsor's surveyor shall immediately notify the adjacent property owner, the Project Sponsor's general contractor, the shoring and excavation sub-contractor, and DBI, and the Project Sponsor shall instruct his contractor and subcontractor to stop work until such time that appropriate remedial steps have been approved by DBI. 	
Impact C-GE-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects in the vicinity, would not result in a significant cumulative impact related to geology and soils.	LS	None required.	LS

Notes:

NA= Not Applicable

LS = Less than significant impact, no mitigation required

LSM = Less than significant impact after implementation of mitigation

S = Significant impact before application of mitigation measures

SU = Significant and unavoidable impact, no feasible mitigation

Table S-2
Summary of Mitigation Measures Identified in the CPE Checklist

Environmental Topic	Mitigation Measures
Cultural and Paleontological Resources	<p>Project Mitigation Measure M-CP-1: Archaeological Testing</p> <p>Based on a reasonable presumption that archaeological resources may be present in 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. The Project Sponsor shall retain the services of an archaeological consultant from the rotational Department Qualified Archaeological Consultants List (QACL) maintained by the Planning Department archaeologist. The Project Sponsor shall contact the Department archaeologist to obtain the names and contact information for the next three archaeological consultants on the QACL. 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, and with the requirements of the project Archaeological Research Design and Treatment Plan (ARDTP),⁶ at the direction of the Environmental Review Officer (ERO). In instances of inconsistency between the requirement of the project ARDTP and of this archaeological mitigation measure, the requirements of this archaeological mitigation measure shall prevail. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the Project for up to a maximum of 4 weeks. At the direction of the ERO, the suspension of construction can be extended beyond 4 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 CEQA Guidelines Section 15064.5 (a)(c).</p> <p>Consultation with Descendant Communities: On discovery of an archaeological site⁷ associated with descendant Native Americans, the Overseas Chinese, or other descendant group, an appropriate representative⁸ of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archaeological field investigations of the site, and to consult with ERO 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 (FARR) shall be provided to the representative of the descendant group.</p> <p>Archaeological Testing Program. The archaeological consultant shall prepare and submit to the ERO for review and approval an archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP 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 to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA.</p> <p>At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant shall determine whether 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</p>

⁶ Shew, Dana, Mary Praetzellis, and Adrian Praetzellis, 2014. *1979 Mission Street San Francisco Archaeological Research Design and Treatment Plan*. November.

⁷ The term "archaeological site" is intended here to minimally include any archaeological deposit, feature, burial, or evidence of burial.

⁸ 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 Department archaeologist.

Table S-2
Summary of Mitigation Measures Identified in the CPE Checklist (Continued)

Environmental Topic	Mitigation Measures
Cultural and Paleontological Resources (Continued)	<p>without the prior approval of the ERO or the Planning Department archaeologist. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the Proposed Project, then at the discretion of the Project Sponsor either:</p> <ol style="list-style-type: none"> The Proposed Project shall be re-designed so as to avoid any adverse effect on the significant archaeological resource; or A data recovery program shall be implemented, unless the ERO 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 ERO, 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 ERO shall meet and consult on the scope of the Archaeological Monitoring Plan reasonably prior to the commencement of any Project related soils disturbing activities. The ERO, in consultation with the archaeological consultant, shall determine what Project activities shall be archaeologically monitored. In most cases, any soils 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 advise all Project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of 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 ERO until the ERO has, in consultation with the 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 soils 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. If, in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO 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 ERO. <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 ERO.</p> <p><i>Archaeological Data Recovery Program.</i> The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan (ADRP). The archaeological consultant, Project Sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archaeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should 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>

Table S-2
Summary of Mitigation Measures Identified in the CPE Checklist (Continued)

Environmental Topic	Mitigation Measures
Cultural and Paleontological Resources (Continued)	<p>The scope of the ADRP 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> Description of selected cataloguing system and artifact analysis procedures. • <i>Discard and Deaccession Policy.</i> Description 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> Description of proposed report format and distribution of results. • <i>Curation.</i> Description 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 and Associated or Unassociated Funerary Objects.</i> The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable state and federal laws. This shall include 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 State Native American Heritage Commission, who shall appoint a Most Likely Descendant (MLD) (Public Resources Code Section 5097.98). The archaeological consultant, Project Sponsor, ERO, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines, Section 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.</p> <p><i>Final Archaeological Resources Report.</i> The archaeological consultant shall submit to the ERO a Draft FARR 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. Information that may put at risk any archaeological resource shall be provided in a separate removable insert in the final report.</p> <p>Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey NWIC shall receive one copy, and the ERO shall receive a copy of the transmittal of the FARR to the Northwest Information Center (NWIC). The Environmental Planning division of the Planning Department shall receive one bound, one unbound, and one unlocked, searchable PDF copy on CD of the FARR, 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/CRHR. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.</p>

Table S-2
Summary of Mitigation Measures Identified in the CPE Checklist (Continued)

Environmental Topic	Mitigation Measures
Noise	<p>Project Mitigation Measure M-NO-1: Construction Noise (Mitigation Measure F-2 of the Eastern Neighborhoods PEIR)</p> <p>Where environmental review of a development project undertaken subsequent to the adoption of the proposed zoning controls determines that construction noise controls are necessary due to the nature of planned construction practices and the sensitivity of proximate uses, the Planning Director shall require that the sponsors of the subsequent development project develop a set of site specific noise attenuation measures under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted to the DBI to ensure that maximum feasible noise attenuation will be achieved. These attenuation measures shall include as many of the following control strategies as feasible:</p> <ul style="list-style-type: none"> • Erect temporary plywood noise barriers around a construction site, particularly where a site adjoins noise sensitive uses; • Use noise control blankets on a building structure as the building is erected to reduce noise emission from the site; • Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings that house sensitive uses; • Monitor the effectiveness of noise attenuation measures by taking noise measurements; and • Post signs on site pertaining to permitted construction days and hours, complaint procedures, and who to notify in the event of a problem, with telephone numbers listed. <p>In addition, the following recommendations from the noise study prepared for the Proposed Project shall be implemented, as feasible:</p> <ul style="list-style-type: none"> • Construct walled enclosures around all stationary equipment, such as the diesel compressor, the generator, and the concrete pumps. • Turn off dump trucks, concrete trucks, and delivery trucks in holding areas as much as possible. • Consider using jackhammers and chipping hammers fitted with mufflers, or use a jacket around the equipment assembled of several layers of a mass vinyl barrier, such as the Kinetics KNM-100, secured with Velcro straps. • Schedule superstructure and interior work to occur after the exterior façade has been erected as much as possible, especially the northern and western facades. The idea would be to use the exterior façade of the 1979 Mission Street buildings as a barrier to block noise to the neighboring receivers as much as possible. • Use all “quiet” options and mufflers on all engines as provided by the equipment manufacturer as much as possible. • Limit the use of tonal noise generators as much as possible. Tonal noise generators would include elements such as crane warning horns, manlift alarms, or backup signals. • Notify the occupants of nearby residential buildings about construction schedules. • Specify maximum noise emission sound pressure levels of the construction equipment. Have the contractor submit test data (manufacturer provided or field tested) for the pieces of equipment planned for use in the Project.
	<p>Project Mitigation Measure M-NO-2: Interior Noise Levels (Mitigation Measure F-3 of the Eastern Neighborhoods PEIR)</p> <p>For new development including noise sensitive uses located along streets with noise levels above 60 dBA (Ldn), as shown in PEIR Figure 18, where such development is not already subject to the California Noise Insulation Standards in Title 24 of the California Code of Regulations, the Project Sponsor shall conduct a detailed analysis of noise reduction requirements. Such analysis shall be conducted by person(s) qualified in acoustical analysis and/or engineering. Noise insulation features identified and recommended by the analysis shall be included in the design, as specified in the San Francisco General Plan Land Use Compatibility Guidelines for Community Noise to reduce potential interior noise levels to the maximum extent feasible.</p>

Table S-2
Summary of Mitigation Measures Identified in the CPE Checklist (Continued)

Environmental Topic	Mitigation Measures
Noise (Continued)	<p>Project Mitigation Measure M-NO-3: Siting of Noise Sensitive Uses (Mitigation Measure F-4 of the Eastern Neighborhoods PEIR)</p> <p>To reduce potential conflicts between existing noise generating uses and new sensitive receptors, for new development including noise sensitive uses, the Planning Department shall require the preparation of an analysis that includes, at a minimum, a site survey to identify potential noise generating uses within 900 feet of, and that have a direct line of sight to, the project site; and including at least one 24 hour noise measurement (with maximum noise level readings taken at least every 15 minutes), 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 Title 24 standards, where applicable, can be met, and that there are no particular circumstances about the Proposed Project site that appear to warrant heightened concern about noise levels in the vicinity. Should such concerns be present, the Department may require the completion of a detailed noise assessment by person(s) qualified in acoustical analysis and/or engineering prior to the first Project approval action, in order to demonstrate that acceptable interior noise levels consistent with those in the Title 24 standards can be attained.</p>
	<p>Project Mitigation Measure M-NO-4: Siting of Noise Generating Uses (Mitigation Measure F-5 of the Eastern Neighborhoods PEIR)</p> <p>To reduce potential conflicts between existing sensitive receptors and new noise generating uses, for new development including commercial, industrial, or other uses that would be expected to generate noise levels in excess of ambient noise, either short term, at nighttime, or as a 24 hour average, in the Proposed Project site vicinity, the Planning Department shall require the preparation of an analysis that includes, at a minimum, a site survey to identify potential noise sensitive uses within 900 feet of, and that have a direct line of sight to, the project site; and including at least one 24 hour noise measurement (with maximum noise level readings taken at least every 15 minutes), 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 comply with the use compatibility requirements in the General Plan and in Police Code Section 2909I, would not adversely affect nearby noise sensitive uses, and that there are no particular circumstances about the Proposed Project site that appear to warrant heightened concern about noise levels that would be generated by the proposed use. Should such concerns be present, the Department may require the completion of a detailed noise assessment by person(s) qualified in acoustical analysis and/or engineering prior to the first Project approval action.</p>
	<p>Project Mitigation Measure M-NO-5: Open Space in Noisy Environments (Mitigation Measure F-6 of the Eastern Neighborhoods PEIR)</p> <p>To minimize effects on development in noisy areas, for new development, including noise sensitive uses, the Planning Department shall, through its building permit review process, in conjunction with noise analysis required pursuant to Mitigation Measure F-4, require that open space required under the Planning Code for such uses be protected, to the maximum feasible extent, from existing ambient noise levels that could prove annoying or disruptive to users of the open space. Implementation of this measure could involve, among other things, site design that uses the building itself to shield onsite open space from the greatest noise sources; construction of noise barriers between noise sources and open space; and appropriate use of both common and private open space in multi-family dwellings; implementation would also be undertaken consistent with other principles of urban design.</p>
Hazards and Hazardous Materials	<p>Project Mitigation Measure M-HZ-1: Hazardous Building Materials (Mitigation Measure L-1 of the Eastern Neighborhoods PEIR)</p> <p>The City shall condition future development approvals to require that the subsequent Project Sponsors ensure that any equipment containing polychlorinated biphenyls or diethylhexyl phthalate (DEPH), such as fluorescent light ballasts, are removed and properly disposed of according to applicable federal, state, and local laws prior to the start of renovation, and that any fluorescent light tubes, which could contain mercury, are similarly removed and properly disposed of. Any other hazardous materials identified, either before or during work, shall be abated according to applicable federal, state, and local laws.</p>

The CPE Checklist also identified improvement measures for the Proposed Project. These improvement measures would further reduce impacts identified as less than significant. The improvement measures are not required by CEQA, but may be imposed as conditions of approval by City decisionmakers as part of the Proposed Project's entitlement process.

Table S-3
Summary of Improvement Measures Identified in the CPE Checklist

Environmental Topic	Improvement Measures
Transportation and Circulation	<p>Project Improvement Measure I-TR-1: Monitoring and Abatement of Queues</p> <p>As an improvement measure to reduce the potential for queuing of vehicles accessing the project site, it shall be the responsibility of the Project Sponsor/ property owner to ensure that recurring vehicle queues do not occur on Capp Street, adjacent to the project site. A vehicle queue is defined as one or more vehicles (destined to the proposed basement parking garage) blocking any portion of the Capp Street sidewalk or travel lane on any adjacent street (16th, Mission, and Capp Streets) for a consecutive period of 3 minutes or longer on a daily and/or weekly basis.</p> <p>Because the Proposed Project would include a new off street parking facility with more than 20 parking spaces (excluding loading and car share spaces), the Project is subject to conditions of approval set forth by the Planning Department to address the monitoring and abatement of queues.</p> <p>It shall be the responsibility of the owner/operator of any off street parking facility with more than 20 parking spaces (excluding loading and car share spaces) to ensure that recurring vehicle queues do not occur on the public right of way. A vehicle queue is defined as one or more vehicles (destined to the parking facility) blocking any public street, alley, or sidewalk for a consecutive period of 3 minutes or longer on a daily or weekly basis.</p> <p>If a recurring queue occurs, the owner/operator of the parking facility shall employ abatement methods as needed to abate the queue. Appropriate abatement methods will vary depending on the characteristics and causes of the recurring queue, as well as the characteristics of the parking facility, the street(s) to which the facility connects, and the associated land uses (if applicable).</p> <p>Suggested abatement methods include but are not limited to the following: redesign of facility to improve vehicle circulation and/or onsite queue capacity; employment of parking attendants; installation of LOT FULL signs with active management by parking attendants; use of valet parking or other space efficient parking techniques; use of offsite parking facilities or shared parking with nearby uses; use of parking occupancy sensors and signage directing drivers to available spaces; travel demand management strategies such as additional bicycle parking, customer shuttles, delivery services; and/or parking demand management strategies such as parking time limits, paid parking, time of day parking surcharge, or validated parking.</p> <p>If the Planning Director, or his or her designee, suspects that a recurring queue is present, the Department shall notify the property owner in writing. Upon request, the owner/operator shall hire a qualified transportation consultant to evaluate the conditions at the site for no less than 7 days. The consultant shall prepare a monitoring report to be submitted to the Department for review. If the Department determines that a recurring queue does exist, the facility owner/operator shall have 90 days from the date of the written determination to abate the queue.</p>
	<p>Improvement Measure I-TR-2: Active Parking Management Controls</p> <p>As an improvement measure to reduce the potential for queuing of vehicles accessing the project site, it shall be the responsibility of the Project Sponsor/ property owner to enforce active parking management controls at the off street parking garage.</p> <p>Active parking management controls shall be established for both residences and retail users of the Project parking garage. Key fobs or similar electronic devices shall be assigned and given to each resident who owns/leases a parking space in the parking garage. Residents will use the key fob (or similar electronic device) to access the parking garage. Non-residents will be required to obtain a ticket (e.g., paper card with magnetic strip) that will register the time of vehicle entry. Because there are 22 spaces in the garage dedicated for retail use, the ticketing machine shall issue up to 22 tickets. When the last ticket has been distributed, no additional tickets would be issued from the machine, and an illuminated "Garage Full" sign at the entrance of the garage shall be emplaced to inform non-residents seeking parking in the garage that all retail parking spaces are fully occupied. As vehicles using the retail parking spaces exit the garage, the "Garage Full" sign will be automatically turn off. The sign would provide advanced notification to non-resident drivers prior to entry into the parking garage; and vehicles would not stop (or queue) along Capp Street resulting in increased traffic congestion along the street or nearby intersections.</p>

Table S-3
Summary of Improvement Measures Identified in the CPE Checklist (Continued)

Environmental Topic	Improvement Measures
Transportation and Circulation (Continued)	<p>Project Improvement Measure I-TR-3: Implement Transportation Demand Management Strategies to Reduce Single Occupancy Vehicle Trips</p> <p>The Project Sponsor and subsequent property owner should implement a Transportation Demand Management (TDM) Program that seeks to minimize the number of single occupancy vehicle trips (SOV) generated by the Proposed Project for the lifetime of the Project. The TDM Program targets a reduction in SOV trips by encouraging persons to select other modes of transportation, including walking, bicycling, transit, car share, carpooling, and/or other modes.</p> <p>The Project Sponsor has agreed to implement the following TDM measures:</p> <ol style="list-style-type: none"> 1. Identify TDM Coordinator: The Project Sponsor should identify a TDM coordinator for the project site. The TDM Coordinator is responsible for the implementation and ongoing operation of all other TDM measures described below. The TDM Coordinator could be a brokered service through an existing transportation management association (e.g., the Transportation Management Association of San Francisco), or the TDM Coordinator could be an existing staff member (e.g., property manager); the TDM Coordinator does not have to work full time at the project site. However, the TDM Coordinator should be the single point of contact for all transportation related questions from building occupants and City staff. The TDM Coordinator should provide TDM training to other building staff about the transportation amenities and options available at the project site and nearby. The TDM Coordinator shall be in charge of maintaining a log (inventory) of complaints from neighbors, including Marshall Elementary School; and the Project Sponsor/property owner will work with the neighbors to address unforeseen problems, and to maintain an ongoing, constructive relationship with neighboring residents and businesses. 2. Provide Transportation and Trip Planning Information to Building Occupants: <ol style="list-style-type: none"> a. <i>Move in packet</i>: Provide a transportation insert for the move in packet that includes information on transit service (local and regional, schedules and fares), information on where transit passes can be purchased, information on the 511 Regional Rideshare Program and nearby bike and car share programs, and information on where to find additional mobile or web based alternative transportation materials (e.g., Next Muni phone app). This move in packet should be continuously updated as local transportation options change, and the packet should be provided to each new building occupant. Provide Muni maps, as well as San Francisco Bicycle and Pedestrian maps upon request. b. <i>New hire packet</i>: Require the retail tenants to provide a transportation insert in the new hire packet that includes information on transit service (local and regional, schedules and fares), information on where transit passes can be purchased, information on the 511 Regional Rideshare Program and nearby bike and car share programs, and information on where to find additional web based alternative transportation materials (e.g., Next Muni phone app). This new hire packet should be continuously updated as local transportation options change, and the packet should be provided to each new building occupant. Provide Muni maps, as well as San Francisco Bicycle and Pedestrian maps upon request. c. <i>Posted information</i>: A local map and transit information could be installed on site in a prominent and visible location, such as in a building lobby. The local map should clearly identify transit, bicycle, and key pedestrian routes, and also depict nearby destination and commercial corridors. <p>Project Improvement Measure I-TR-4: Installation of Traffic Calming Devices at Basement Garage Exiting Lane</p> <p>As an improvement measure to reduce potential conflicts between vehicles exiting the basement garage, and pedestrians traveling along the western sidewalk of Capp Street, the Project Sponsor shall install appropriate traffic calming devices (e.g., speed bump, rumble strips, "slow speed" signage, etc.) at the exiting travel lane along the garage driveway to reduce vehicle speeds of existing vehicles traveling out of the basement parking garage, and to further reduce potential vehicle-pedestrian conflicts.</p>

Table S-3
Summary of Improvement Measures Identified in the CPE Checklist (Continued)

Environmental Topic	Improvement Measures
Transportation and Circulation (Continued)	<p>Project Improvement Measure I-TR-5: Coordination of Move In/Move Out Operations, Large Deliveries, and Garbage Pick Up Operations</p> <p>To reduce the potential for parking of delivery vehicles in the travel lane adjacent to the curb lane on 16th, Mission, or Capp Streets (in the event that the on and off street loading spaces are occupied), residential move in and move out activities and larger deliveries shall be scheduled and coordinated through building management. For retail/restaurant uses, appropriate delivery times shall be scheduled and shall be restricted to occur before 7:00 a.m., and between the hours of 10:00 a.m. and 2:00 p.m., and no deliveries shall occur after 3:00 p.m. to avoid any conflicts with vehicle traffic and pedestrians associated with the nearby Marshall Elementary School.</p> <p>The Project Sponsor shall enforce strict truck size regulations for use of the off street loading spaces in the proposed freight loading area. Truck lengths exceeding 35 feet shall be prohibited from entering the parking garage, and shall use existing on street loading spaces along 16th Street, adjacent to the project site. Appropriate signage shall be installed at the parking garage entrance to notify drivers of truck size regulations, and to notify drivers of on street loading spaces on 16th Street. The Project Sponsor shall notify building management and related staff, and retail/restaurant tenants of imposed truck size limits in the proposed freight loading area.</p> <p>Appropriate move in/move out and loading procedures shall be enforced to avoid any blockages of any streets adjacent to the project site over an extended period of time, and reduce any potential conflicts between other vehicles and users of adjacent streets, as well as movers and pedestrians walking along 16th, Mission, and Capp Streets. Curb parking on 16th, Mission, or Capp Streets shall be reserved through SFMTA, or by directly contacting the local 311 service.</p> <p>Project Sponsor shall coordinate with Recology and enforce strict garbage pick up periods. Such pick up times shall be restricted to occur before 7:00 a.m., and between the hours of 10:00 a.m. and 2:00 p.m., and no garbage pick up activities shall occur after 3:00 p.m. to avoid any conflicts with vehicle traffic and pedestrians associated with the nearby Marshall Elementary School.</p>
	<p>Project Improvement Measure I-TR-6: Construction Truck Deliveries During Off Peak Periods</p> <p>Any construction traffic occurring between 7:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 6:00 p.m. would coincide with peak hour traffic and could temporarily impede traffic and transit flow, although it would not be considered a significant impact. Limiting truck movements to the hours between 9:00 a.m. and 3:30 p.m. (or other times, if approved by SFMTA) would further minimize disruption of the general traffic flow on adjacent streets during the a.m. and p.m. peak periods.</p> <p>As required, the Project Sponsor and construction contractor(s) shall meet with the Sustainable Streets Division of the SFMTA, the Fire Department, Muni, and the Planning Department to determine feasible measures to reduce traffic congestion, including potential transit disruption, and pedestrian circulation impacts during construction of the Project. To minimize cumulative traffic impacts due to Project construction, the Project Sponsor shall coordinate with construction contractors for any concurrent nearby projects that are planned for construction, or which later become known.</p>
	<p>Project Improvement Measure I-TR-7: Construction Management Plan</p> <p>In addition to items required in the Construction Management Plan, the Project Sponsor shall include the following:</p> <ul style="list-style-type: none"> • <i>Carpool and Transit Access for Construction Workers</i> – As an improvement measure to minimize parking demand and vehicle trips associated with construction workers, the construction contractor shall include methods to encourage carpooling and transit use to the project site by construction workers in the Construction Management Plan contracts. • <i>Project Construction Updates</i> – As an improvement measure to minimize construction impacts on nearby businesses, the Project Sponsor shall provide regularly updated information (typically in the form of website, news articles, on site posting, etc.) regarding Project construction and schedule, as well as contact information for specific construction inquiries or concerns.

Table S-3
Summary of Improvement Measures Identified in the CPE Checklist (Continued)

Environmental Topic	Improvement Measures
Air Quality	<p>Project Improvement Measure I-AQ-1: Construction Emissions Minimization Plan</p> <p>A. Prior to issuance of a construction permit, the Project Sponsor should submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and approval by an Environmental Planning Air Quality Specialist. The Plan should specify the extent to which the following measures are feasible and have been incorporated into the construction contracts:</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 should meet the following requirements: <ol style="list-style-type: none"> a Where access to alternative sources of power are available, portable diesel engines should be prohibited; and b All off road equipment should have: <ol style="list-style-type: none"> i. Engines that meet or exceed either U.S. Environmental Protection Agency or California Air Resources Board (ARB) Tier 2 off road emission standards, and that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS), or ii. Engines that meet Tier 3 off road emission standards, or to the extent feasible, engines that meet Tier 4 off road emission standards. 2. The Project Sponsor should require that the idling time for off road and on road equipment be limited to no more than 2 minutes, and that construction operators properly maintain and tune equipment in accordance with manufacturer's specifications. 3. The Plan should be updated quarterly, and 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 are not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For VDECS installed: technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date and hour meter reading on installation date. 4. The Plan should be kept on site and available for review by any persons requesting it, and a legible sign should 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 should provide copies of Plan to members of the public as requested.

Table S-4
Summary of Project Alternatives and Proposed Project

Description	Proposed Project	Alternative A – No Project	Alternative B – Bulk Code Compliant Alternative	Alternative C – Raised Playground Alternative	Alternative D – Reduced Shadow Alternative 1	Alternative E – Reduced Shadow Alternative 2	Alternative F – Reduced Shadow Alternative 3
Ability to Meet Project Sponsor's Objectives	Would meet all Project Sponsor's objectives.	Would not meet any of the Project Sponsor's objectives.	Would meet all Project Sponsor's objectives but to a lesser extent than the Proposed Project.	Would meet all Project Sponsor's objectives.	Would meet all Project Sponsor's objectives but to a lesser extent than the Proposed Project.	Would meet some of the Project's Sponsor's objectives but would have less opportunities to provide affordable and high density housing adjacent to a local and regional public transit hub compared to the Proposed Project.	Would meet some of the Project's Sponsor's objectives but would have less opportunities to provide affordable and high density housing adjacent to a local and regional public transit hub compared to the Proposed Project.
Building Height/Stories	55 to 105 feet (121 feet with elevator penthouse)/6 to 10 stories	Approximately 23 to 30 feet, 1 story	Same as Proposed Project	Same as Proposed Project	35 to 105 feet (121 feet with elevator penthouse)/3 to 10 stories	15 to 105 feet (121 feet with elevator penthouse)/1 to 10 stories	15 to 105 feet (121 feet with elevator penthouse)/1 to 10 stories
Residential Units	331	None	331	331	327	310	243
Parking							
Vehicle	163 spaces (136 residential, 22 commercial, 4 car share, and 1 ADA van space), and 3 freight loading spaces	54 spaces	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project
Bike	192 spaces (162 secured Class I spaces in basement and 30 Class II spaces on street)	None	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project

Table S-4
Summary of Project Alternatives and Proposed Project Development (Continued)

Description	Proposed Project	Alternative A – No Project	Alternative B – Bulk Code Compliant Alternative	Alternative C – Raised Playground Alternative	Alternative D – Reduced Shadow Alternative 1	Alternative E – Reduced Shadow Alternative 2	Alternative F – Reduced Shadow Alternative 3
Building Characteristics							
Mission Street component ⁶	6 to 10 stories/65 to 105 feet in height/121 feet inclusive of the elevator penthouse	NA	6 to 10 stories/121 feet in height inclusive of the elevator penthouse	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	6 stories/65 feet in height/81 feet inclusive of the elevator penthouse
16th Street component ⁶	7 to 10 stories/75 feet to 105 feet in height/121 feet inclusive of the elevator penthouse	NA	6 to 10 stories/121 feet inclusive of the elevator penthouse	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project
Capp Street component ⁶	5 stories/55 feet in height/71 feet inclusive of the elevator penthouse	NA	Same as Proposed Project	Same as Proposed Project	3 to 5 stories/71 feet in height inclusive of the elevator penthouse	1 to 5 stories/15 to 55 feet in height/71 feet in height inclusive of the elevator penthouse and set back 35 feet from the north property line above the first floor with additional setback on the fourth and fifth floors	1 to 5 stories/15 to 55 feet in height/71 feet in height inclusive of the elevator penthouse and set back 70 feet from the north property line above the first floor

Table S-4
Summary of Project Alternatives and Proposed Project Development (Continued)

Description	Proposed Project	Alternative A – No Project	Alternative B – Bulk Code Compliant Alternative	Alternative C – Raised Playground Alternative	Alternative D – Reduced Shadow Alternative 1	Alternative E – Reduced Shadow Alternative 2	Alternative F – Reduced Shadow Alternative 3
Ground floor	Retail: 34,198 gsf; Residential: 3 residential lobbies; 3 residential units on Capp Street; Garage: 3 freight/spaces; 1 ADA accessible van parking space; building services; and 4 Class I bicycle parking spaces for commercial tenants.	Retail: 50,915 square feet with mezzanine and partial basements and a 54 car surface parking lot	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project
Basement	162 vehicle parking spaces (22 retail parking spaces; 4 car share spaces; and 136 residential parking spaces); 158 Class I bicycle parking spaces; Building services, including emergency generator.	Partial basement under both buildings	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project
Open Space							
Publicly accessible open space (square feet)	2,175	None	2,175	2,175	2,175	2,175	2,175
Common (square feet)	28,741	None	25,596	28,741	28,053	25,508	31,508
Number of units with private deck	29	None		29			

Table S-5
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the EIR

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
IMPACTS							
Wind and Shadow							
Wind	Impact WS-1: The Proposed Project would not alter wind in a manner that substantially affects public areas in the vicinity of the project site (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Substantially reduced impact compared to the Proposed Project (LTS)
Cumulative Wind	Impact C-WS 1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects, would not alter wind in a manner that substantially affects public areas in the vicinity of the project site (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Substantially reduced impact compared to the Proposed Project (LTS).
Shadow	Impact WS 2: The Proposed Project would create new shadow in a manner that could substantially affect the Marshall Elementary School outdoor recreation facilities and open space (SU).	No impact (NI).	Similar to the Proposed Project impact (SU).	Similar to, but slightly less than, the Proposed Project impact (SU).	Similar to, but slightly less than, the Proposed Project impact (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).
Cumulative Shadow	Impact C-WS 2: The Proposed Project would have a cumulatively considerable contribution to significant cumulative shadow impacts, substantially affecting outdoor recreation facilities and open space (Significant and Unavoidable).	No impact (NI).	Similar to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).

Table S-5
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the EIR (Continued)

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Geology and Soils							
Seismicity and Liquefaction	Impact GE 1: The Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture, ground shaking, liquefaction, or landslides (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Soil	Impact GE 2: The Proposed Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Lateral Surcharge on the BART subway	Impact GE 3: The Proposed Project could impose lateral surcharge pressures on the BART subway (SM).	No impact (NI).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).
Cumulative Geology and Soils	Impact C-GE 1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects in the vicinity, would not result in a significant cumulative impact related to geology and soils (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Legend NI No impact LTS Less than significant or negligible impact; no mitigation required SM Significant but mitigable SU Significant and unavoidable adverse impact, no feasible mitigation SUM Significant and unavoidable adverse impact, after mitigation BART Bay Area Rapid Transit District							

Table S-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Land Use and Land Use Planning	No additional land use and land use planning impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced, impact compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).
Population and Housing	No additional population and housing impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact compared to the Proposed Project (LTS).	Similar to but slightly reduced impact compared to the Proposed Project (LTS).	Similar to but slightly reduced impact compared to the Proposed Project (LTS).
Cultural and Paleontological Resources	The Eastern Neighborhoods PEIR cultural and paleontological Mitigation Measures are applicable, and no additional cultural and paleontological impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (SM).	No impact (NI).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).
Transportation and Circulation							
Traffic	The Proposed Project is not expected to cause any new significant traffic impacts. A number of measures could be implemented to further lessen the already less than significant effect of project generated vehicle traffic in the project vicinity (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Similar to but slightly reduced impact compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).

Table S-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist (continued)

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Transit	The Proposed Project would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Similar to but slightly reduced impact compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).
Pedestrians	The Proposed Project would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR. Improvement Measures documented in the CPE Checklist would further reduce less than significant pedestrian impacts (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).
Loading	The Proposed Project would result in significant impacts that were not identified in the Eastern Neighborhoods PEIR. Improvement Measures documented in the CPE Checklist would further reduce less than significant loading impacts (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).

Table S-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist (continued)

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Construction	The Proposed Project would result in less than significant construction related transportation impacts. Improvement Measures documented in the CPE Checklist would further reduce less than significant construction related impacts (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Noise	The Eastern Neighborhoods PEIR noise Mitigation Measures are applicable, and no additional noise impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (SM).	No Impact (NI).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).
Air Quality	No additional air quality impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No Impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to Proposed Project (LTS).	Similar to Proposed Project (LTS).	Similar to Proposed Project (LTS).
Greenhouse Gas Emissions	No additional impacts on GHG emissions beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Recreation	No additional impacts on recreation beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).

Table S-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist (continued)

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Utilities and Service Systems	No additional impacts on utilities and service systems beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Public Services	No additional impacts on public services beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Biological Resources	No additional impacts on biological resources beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Hydrology and Water Quality	No additional impacts related to hydrology and water quality beyond those in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Hazards and Hazardous Materials							
Hazards and Hazardous Materials	The Eastern Neighborhoods PEIR hazardous materials Mitigation Measures are applicable and no additional impacts beyond those identified in the PEIR (SM).	No impact (NI).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).
Soil and Groundwater Contamination	No additional impacts associated with soil and groundwater contamination beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).

Table S-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist (continued)

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Mineral and Energy Resources	No additional impacts on mineral and energy resources beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Agriculture and Forest Resources	No additional impacts on agriculture and forest resources beyond those analyzed in the Eastern Neighborhoods PEIR (NI).	No Impact (NI).	Similar to the Proposed Project (NI).	Similar to the Proposed Project (NI).	Similar to the Proposed Project (NI).	Similar to the Proposed Project (NI).	Similar to the Proposed Project (NI).
<p>Legend</p> <p>NI No impact</p> <p>LTS Less than significant or negligible impact; no mitigation required</p> <p>SM Significant but mitigable</p> <p>SU Significant and unavoidable adverse impact, no feasible mitigation</p> <p>SUM Significant and unavoidable adverse impact, after mitigation</p>							

C. Summary of Project Alternatives

The six project alternatives are summarized below.

- **Alternative A: No Project Alternative**, under which the project site would not be redeveloped, and would remain in its existing condition and uses. Because the physical environment of the site would remain unchanged, the No Project Alternative would not achieve any of the Project Sponsor's objectives for the Project, including but not limited to development of a mixed use residential project in close proximity to a transit hub, providing high quality housing, new employment opportunities, and streetscape improvements.
- **Alternative B: Bulk Code Compliant Alternative**, under which the project site would be redeveloped with a building massing that would comply with the bulk district requirements for the project site. Similar to the Proposed Project, under this alternative, the project site would be developed as a mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.

Alternative B would meet the requirements of the E bulk district. The portions of the site along Mission and 16th Streets are in the 105-E height and bulk district, and the portion of the site along Capp Street is in the 55-X height and bulk district. This alternative design—with a maximum height of 105 feet (exclusive of the mechanical penthouse), 331 residential units, and ground floor retail uses—would meet the Project Sponsor's objectives regarding the development of a mixed use building with high quality housing in close proximity to transit, new employment opportunities, and improvement to the quality and safety of the Northeast BART Plaza and streetscape near the project site. This alternative would also meet the project sponsor's objective of constructing a project with the residential development density anticipated by the Mission Area Plan for this site.

Similar to the Proposed Project, Alternative B would result in less than significant wind impacts, significant and unavoidable shadow impacts, and less than significant impacts related to geology and soils. In addition, similar to the Proposed Project, Alternative B would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR and documented in the CPE Checklist. This alternative would not reduce the significant shadow impact of the Proposed Project.

- **Alternative C: Raised Playground Alternative**, under which the project site would be redeveloped in the same way as the Proposed Project, but the existing Marshall Elementary School Playground (Playground) would be replaced with a one story structure with a Raised Playground on its roof. In particular, the Playground, the one story multi use room at the northwestern corner of the Playground and the temporary modular building at the southeastern corner of the Playground would be removed, and a new 15 foot high structure would be constructed at the location of the existing Playground. The roof of this structure would be the new Playground (referred to as the Raised Playground). The newly constructed structure would include a new multi-purpose room, a music room, a library, a classroom, storage space, an area for trash, recycling, and compost bins, and parking for up to eight cars below the new Raised Playground. Similar to the Proposed Project, under this alternative, the project site would be developed as mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.

Similar to the Proposed Project, Alternative C would achieve all of the Project Sponsor's objectives and would result in less than significant impacts related to wind. It would result in a significant impact related to geology and soils that would be mitigated to less than significant with implementation of Mitigation Measure M-GE-3, similar to the Proposed Project. In addition, similar to the Proposed Project, Alternative C would not result in significant impacts for other environmental topic areas that were not identified in the Eastern Neighborhoods PEIR, except for shadow. Alternative C would reduce but not avoid the significant shadow impact of the Proposed Project by reducing the shadow from existing buildings, thereby reducing overall shadow load.

- Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side), under which the Mission Street and 16th Street residential components would be identical to the Proposed Project. However, the northeastern corner of the Capp Street residential component would be reduced from five stories to three and four stories. Similar to the Proposed Project, under this alternative, the project site would be developed as mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.

Alternative D would achieve the Project Sponsor's objectives, but to a lesser extent compared with the Proposed Project. Alternative D would meet the objectives for the Project regarding the development of a mixed use residential building in close proximity to transit, providing high quality housing, generating new employment opportunities, and improving the quality and safety of the open space and streetscape. However, although the affordable housing component under Alternative D would comply with the inclusionary affordable housing requirements under the Planning Code, and this alternative would include street improvements and other public improvements (similar to the Proposed Project), it would have four fewer residential units, resulting in fewer affordable units for low, moderate, and middle income households than the Proposed Project. Therefore, Alternative D would achieve the Project Sponsor's objectives to a lesser extent.

Similar to the Proposed Project, Alternative D would result in less than significant impacts related to wind. It would result in a significant impact related to geology and soils that would be mitigated to less than significant with implementation of Mitigation Measure M-GE-3, similar to the Proposed Project. In addition, similar to the Proposed Project, Alternative D would not result in significant impacts for other environmental topic areas that were not identified in the Eastern Neighborhoods PEIR, except for shadow. Alternative D would reduce, but not avoid, the significant shadow impact of the Proposed Project.

- Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component, under which the Mission Street and 16th Street residential components would be identical to the Proposed Project. However, the northern end of the Capp Street residential component would be further reduced in height through a series of setbacks from the northern property line, ranging between 35 and 55 feet. Similar to the Proposed Project, under this alternative, the project site would be developed as mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.

Alternative E would redevelop the project site with a mixed use building (residential/retail), and would meet some of the objectives of the Project Sponsor to develop a mixed use high quality residential building for residents with varying incomes that would (1) be in close proximity to a major transit hub, (2) generate employment opportunities, (3) enhance the safety of public open space, and (4) improve the streetscape. However, although the affordable housing component under

Alternative E would comply with the inclusionary affordable housing requirements under the Planning Code, and this alternative would include street improvements and other public improvements (similar to the Proposed Project), it would have 21 fewer residential units, resulting in fewer affordable units for low, moderate, and middle income households than the Proposed Project. Therefore, Alternative E would achieve the Project Sponsor's objectives to a lesser extent.

Similar to the Proposed Project, Alternative E would result in less than significant impacts related to wind. It would result in a significant impact related to geology and soils that would be mitigated to less than significant with implementation of Mitigation Measure M-GE-3, similar to the Proposed Project. In addition, similar to the Proposed Project, Alternative E would not result in significant impacts for other environmental topics that were not identified in the Eastern Neighborhoods PEIR, except for shadow. Shadow impacts under Alternative E would be significant and unavoidable, similar to the Proposed Project. However, Alternative E would result in somewhat reduced shadow impacts on the Playground compared to the shadow impacts on the Playground under the Proposed Project.

- Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components, under which the 16th Street residential component would be identical to the Proposed Project. However, the northern end of the Capp Street residential component would be set back 70 feet from the northern property line above the podium, and the height of the Mission Street residential component would be reduced from 105 to 65 feet. Similar to the Proposed Project, under this alternative, the project site would be developed as mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.

Alternative F would redevelop the project site with a mixed use building (residential and retail) that would meet some of the objectives of the Project Sponsor to develop a mixed use high quality residential building for residents with varying incomes that would (1) be in close proximity to a major transit hub, (2) generate employment opportunities, (3) enhance the safety of the open space, and (4) improve the streetscape. However, although the affordable housing component under Alternative F would comply with the inclusionary affordable housing requirements under the Planning Code, and this alternative would include street improvements and other public improvements (similar to the Proposed Project), it would have 88 fewer residential units, resulting in fewer affordable units for low, moderate, and middle income households than the Proposed Project. Therefore, Alternative F would achieve the Project Sponsor's objectives to a much lesser extent.

Similar to the Proposed Project, Alternative F would result in less than significant impacts related to wind. It would result in a significant impact related to geology and soils that would be mitigated to less than significant with implementation of Mitigation Measure M-GE-3, similar to the Proposed Project. In addition, similar to the Proposed Project, Alternative F would not result in significant impacts for other environmental topics that were not identified in the Eastern Neighborhoods PEIR, except for shadow. Shadow impacts under Alternative F would be significant and unavoidable, similar to the Proposed Project. However, Alternative F would result in somewhat reduced shadow impacts on the Playground compared to the shadow impacts on the Playground under the Proposed Project.

D. Areas of Known Controversy and Issues to be Resolved

The Planning Department received an Environmental Evaluation Application for the Proposed Project on January 29, 2014. This application was revised on August 21, 2014, to reflect changes to the Proposed Project's program and design requested by the Planning Department. The Planning Department prepared a CPE Checklist and published an NOP of an EIR with the CPE Checklist on January 28, 2015, announcing its intent to prepare and distribute a focused EIR (the NOP and CPE Checklist are presented as Appendix A to this EIR). Publication of the NOP and CPE Checklist initiated a 30 day public review and comment period that began on January 29, 2015, and ended on March 2, 2015. Individuals and agencies that received these notices included owners of properties within 300 feet of the project site and potentially interested parties, including regional and state agencies. During the review and comment period, approximately 282 emails, letters, and comment cards were submitted to the Planning Department by interested parties. The Planning Department has considered the comments made by the public in preparation of the Draft EIR for the Proposed Project. The emails, letters, and comment cards received in response to the NOP and CPE Checklist are available for review as part of Case File No. 2013.1543E. Comments pertaining to environmental issues associated with the Proposed Project expressed concern about the following topics:

- **Project Description:** Comments expressed concern with the size of the Proposed Project and associated parking garage. Other comments requested changes to the associated private open space.
- **Environmental Review Process:** One comments requested the extension of the public comment period following the publication of the NOP and CPE Checklist.
- **Adequacy of Eastern Neighborhoods PEIR:** Comments expressed concern with the reliance of this EIR on the Eastern Neighborhoods PEIR because substantial new information has become available since its release.
- **Land Use:** Comments expressed concern about the impacts of the Proposed Project on gentrification of the neighborhood and displacement.
- **Transportation and Circulation:** Comments expressed concern about the impacts of the proposed streetscape improvements and parking garage on the drop off or pick up of children at the Marshall Elementary School. Other comments expressed concern about the impacts of the Proposed Project on other modes of transportation.
- **Noise:** Comments expressed concerns with the noise impacts associated with the construction of the Proposed Project.
- **Air Quality:** Comments expressed concerns about construction dust affecting the children attending Marshall Elementary School.
- **Wind and Shadow:** Several comments noted that the Proposed Project would have the potential to create wind and shadow impacts, particularly shadows cast on Marshall Elementary School.
- **Utilities and Service Systems:** One comment expressed concern about the increased water supply needs as a result of the Proposed Project.

- Hazards and Hazardous Materials: One comment noted the potential impacts from the demolition of existing buildings that may contain lead and asbestos.
- Public Services: One comment expressed concern about the capacity of the public infrastructure and services.
- Geology and Soils: One comment expressed concern with the potential impacts of the Proposed Project on the BART tunnel in the event of an earthquake.

A more detailed summary of the comments and how they have been addressed is provided in Chapter 5, Other CEQA Issues, under Areas of Known Controversy and Issues to be Resolved. All comments related to environmental topics have been addressed in this EIR or were previously addressed in the CPE Checklist, as indicated. Comments expressing support for the Proposed Project or opposition to it are comments on project merits and will be considered independently of the environmental review process by City decisionmakers, as part of their decision to approve, modify, or disapprove the Proposed Project.

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CHAPTER 1

Introduction

This Environmental Impact Report (EIR) analyzes the potential environmental effects associated with the proposed 1979 Mission Street Mixed Use Project (Proposed Project). This chapter describes the type, purpose, and function of the EIR, and provides background information related to the Programmatic EIR for the Eastern Neighborhoods Rezoning and Area Plans (Eastern Neighborhoods PEIR). It also describes the environmental review process for the Proposed Project. Chapter 2, Project Description, explains how the Proposed Project would demolish the two existing commercial buildings and a surface parking lot on the project site, and construct an approximately 388,912 gross square foot (gsf) mixed use residential building ranging in height from 4 to 10 stories, with a maximum height of 105 feet (121 feet inclusive of the elevator penthouse). The Proposed Project would have 331 residential units, with approximately 34,198 gsf of ground floor commercial uses, off street ground level loading and basement parking, publicly accessible open space along the adjacent Northeast 16th Street Mission Bay Area Rapid Transit (BART) plaza, and private and common open space for the residents.

A. Purpose and Function of this Environmental Impact Report

The San Francisco Planning Department (Planning Department), serving as lead agency responsible for administering environmental review on behalf of the City and County of San Francisco, determined that preparation of an EIR was required for the Proposed Project.

The California Environmental Quality Act (CEQA) requires that before a decision can be made on whether to approve a project that could have potential significant and avoidable adverse physical effects, an EIR must be prepared that fully describes the environmental effects of the project. The information contained in an EIR is reviewed and considered by the decisionmakers before electing to approve, disapprove, or modify a proposed project.

CEQA requires that the lead agency neither approve nor implement a project unless the project's significant environmental effects have been reduced to a less-than-significant level, essentially "eliminating, avoiding, or substantially lessening" the expected impact, except when certain findings are made. If the lead agency approves a project that will result in the occurrence of significant adverse impacts that cannot be mitigated to less than significant levels, the agency must adopt a Statement of Overriding Considerations stating the reasons for its action in writing, based on the EIR or other information in the record. The Planning Department has prepared this EIR to provide the public, and the responsible and trustee agencies reviewing the Proposed Project, with information about the Proposed Project's potential effects on the environment. This EIR describes the potential environmental impacts

resulting from implementation of the Proposed Project, identifies mitigation measures for reducing the impacts to a less-than-significant level where feasible, and evaluates alternatives to the project.

This document is a project level EIR that does not determine or recommend whether a project should or will be approved, but aids the planning and decision making process by analyzing and disclosing the potential significant and adverse physical environmental impacts of the Proposed Project. In conformance with the California Public Resources Code Section 21000 et seq. (CEQA), this EIR provides information addressing the environmental consequences of the Proposed Project and identifies possible means of reducing or avoiding its potentially significant impacts. The CEQA Guidelines define the role and expectations for this EIR as follows:

- **Informational Document.** An EIR is an informational document that will inform public agency decisionmakers and the public generally of the significant environmental effect(s) of a project, identify possible ways to minimize or avoid the significant effects through the identification of mitigation measures, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information that may be presented to the agency (Section 15121[a]).
- **Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to provide decisionmakers 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).

B. Environmental Review Process

1. Eastern Neighborhoods Rezoning and Area Plans

The project site is within the Mission Area Plan boundaries, which is one of the planning areas included in the Eastern Neighborhoods Program. The Eastern Neighborhoods Rezoning and Area Plans were adopted in December 2008, after years of analysis, community outreach, and public review. The plans were developed to support housing development in some areas previously zoned to allow industrial uses, while preserving an adequate supply of land for existing and future production, distribution, and repair (PDR) employment and businesses. The Eastern Neighborhoods Rezoning and Area Plans also included changes to existing height and bulk districts in some areas. With respect to the project site, these changes applied to the portion on Capp Street that was rezoned from 50-X to 55-X for height and bulk, and to the portion fronting on 16th Street that was rezoned from 50-X to 105-E for height and bulk.

During the Eastern Neighborhoods Rezoning and Area Plans adoption phase, the San Francisco Planning Commission (Planning Commission) held public hearings to consider the various aspects of the proposed area plans, and amendments to the San Francisco Planning Code (Planning Code) and Zoning Map. On

August 7, 2008, the Planning Commission certified the Eastern Neighborhoods PEIR (Motion 17659),¹ and adopted one of the alternatives analyzed, referred to as the Preferred Project, for final recommendation to the Board of Supervisors.²

In December 2008, after further public hearings, the Board of Supervisors approved and the Mayor signed the Eastern Neighborhoods rezoning and Planning Code amendments. New zoning districts included districts that would permit PDR uses in combination with commercial uses, districts mixing residential and commercial uses and residential and PDR uses, and new residential only districts. These districts replaced existing industrial, commercial, residential single use, and mixed use districts.

The Eastern Neighborhoods PEIR is a comprehensive programmatic document that presents an analysis of the environmental effects of implementation of the Eastern Neighborhoods Rezoning and Area Plans, as well as the potential impacts under several proposed alternative scenarios. The Eastern Neighborhoods PEIR evaluated three rezoning alternatives, two community proposed alternatives that focused largely on the Mission District, and a “No Project” alternative. The alternative selected, the Preferred Project, represents a combination of Options B and C described in the Eastern Neighborhoods PEIR. The Planning Commission adopted the Preferred Project after fully considering the environmental effects of the Preferred Project and the various scenarios discussed in the Eastern Neighborhoods PEIR.

As a result of the Eastern Neighborhoods Rezoning and Area Plans, the project site was rezoned from Moderate Scale Neighborhood Commercial District (NC-3) to Mission Street Neighborhood Commercial Transit (Mission NCT). The Mission NCT District provides a selection of goods serving the day to day needs of the residents of the Mission District. Additionally, the Mission NCT District serves a wider trade area with its specialized retail outlets. Eating and drinking establishments contribute to the neighborhood’s mixed use character and activity in the evening hours. The Mission NCT District is extremely well served by transit, including regional serving BART stations at 16th Street (adjacent to the project site) and 24th Street; major bus routes along Mission Street and cross town, and local serving buses intersecting Mission Street along the length of this district, including along 16th Street adjacent to the project site. Given the area’s central location and accessibility to San Francisco’s transit network, accessory parking for residential uses is not required. Any new parking is required to be set back or be below ground. In addition, the Mission NCT District encourages new neighborhood serving commercial development at the ground level. Housing development in new buildings is encouraged above the ground level. Housing density is not controlled by the size of the lot, but by the allowable building envelope. In the Eastern Neighborhoods Rezoning and Area Plans, at least 40 percent of the units in a residential development must be two bedroom or larger.

2. Notice of Preparation and Community Plan Exemption Checklist

Section 15183 of the CEQA State Guidelines streamlines environmental review for projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was previously certified. The Proposed Project was addressed at a program

¹ San Francisco Planning Department, 2008. Eastern Neighborhoods Rezoning and Area Plans Programmatic Environmental Impact Report, Planning Department Case No. 2004.0160E, certified August 7, 2008. The Eastern Neighborhoods PEIR (and all other documents cited in this report, unless otherwise noted) is on file for public review at the Planning Department, 1650 Mission Street, Suite 400, as part of Case No. 2004.0160E, or at www.sfgov.org/site/planning_index.asp?id=67762.

² San Francisco Planning Commission Motion 17659, August 7, 2008.

level in the Eastern Neighborhoods PEIR.³ Individual projects that occur under the Eastern Neighborhoods Rezoning and Area Plans undergo project level environmental evaluation to determine whether they would result in unique impacts specific to the development proposal, the site, and the time of development that were not analyzed and disclosed in the PEIR for the underlying plan. The project level environmental evaluation also assesses whether additional environmental review is required.

For this streamlined review, Section 15183 specifies that examination of environmental effects shall be limited to those effects that: (1) are peculiar to the project or parcel on which the project would be 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 and cumulative impacts that were not discussed in the underlying EIR; and (4) are previously identified in the EIR, but are determined to have a substantially greater adverse impact than that discussed in the underlying EIR. Section 15183(c) specifies that if an impact is not peculiar to the parcel or to the proposed project, then an EIR need not be prepared for that proposed project solely on the basis of that impact.

The Planning Department determined that the Proposed Project is consistent with the zoning controls and the provisions of the Planning Code applicable to the project site.^{4, 5} Therefore, because the Proposed Project is consistent with the programmatic document prepared for the area, the environmental review can be streamlined per CEQA State Guidelines Section 15183.

The Planning Department received an Environmental Evaluation Application for the Proposed Project on January 29, 2014. The Planning Department, serving as lead agency, published and distributed a Community Plan Exemption (CPE) Checklist and a Notice of Preparation (NOP) of an EIR for the 1979 Mission Street Mixed use Project on January 28, 2015, announcing its intent to prepare and distribute a focused EIR (the NOP and CPE Checklist are included as Appendix A to this EIR, and the analysis is incorporated by reference into this document). The NOP was published in the Examiner newspaper (San Francisco, California), posted at the San Francisco County Clerk's Office, submitted to the State Clearinghouse, posted at the project site, and posted to the Planning Department website, along with other information related to the Proposed Project (see Planning Department File No. 2013.1543E). The NOP, together with the CPE Checklist, was mailed to responsible and trustee agencies, as well as to interested entities and individuals.

Publication of the NOP initiated a 30-day public comment period from January 29, 2015, through March 2, 2015. During this time, the Planning Department received approximately 282 public comment emails, letters, and comment cards. A summary of the public comments received on the NOP and CPE Checklist, and how they have been addressed, is provided in Chapter 5, Other CEQA Issues, under Areas of Known Controversy and Issues to Be Resolved. Based on the requirements specified in CEQA Guidelines Section 15082(c)(1), the Planning Department determined that a public scoping meeting was not required for the Proposed Project.

The NOP included a brief project description and indicated which topics were addressed in the CPE Checklist, and which issues would be addressed in this EIR (see Appendix A of this EIR). The CPE

³ San Francisco Planning Department, 2008. Eastern Neighborhoods Rezoning and Area Plans Programmatic Environmental Impact Report, Planning Department Case No. 2004.0160E, certified August 7, 2008.

⁴ Varat, Adam, 2014. San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Citywide Planning and Policy Analysis, 1979 Mission Street, August 20.

⁵ Joslin, Jeff, 2014. San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Current Planning Analysis, 1979 Mission Street, September 10.

Checklist described the potential environmental impacts from the implementation of the Proposed Project, and indicated whether the impacts were addressed in the Eastern Neighborhoods PEIR. The Planning Department concluded from the CPE Checklist that the Proposed Project is generally consistent with and encompassed within the analysis in the Eastern Neighborhoods PEIR. The Planning Department also found that the Eastern Neighborhoods PEIR adequately anticipated and described the majority of the impacts of the Proposed Project, and identified the mitigation measures from the Eastern Neighborhoods PEIR that are applicable to the Proposed Project.

Based on the analysis in the CPE Checklist, the NOP identified that the Proposed Project has the potential to result in a significant wind impact, a significant shadow impact, and a significant geology and soils impact. For these environmental topics, the Proposed Project's potential impacts may be peculiar (unique) to the project site, and may not have been identified in the Eastern Neighborhoods PEIR. For all the other environmental topics, the Proposed Project would not result in new significant impacts, nor would it result in more severe adverse impacts to these resources than were identified in the Eastern Neighborhoods PEIR.

3. Focused EIR

In accordance with Section 15183, the Planning Department has prepared this focused EIR to examine the Proposed Project's specific impacts on wind, shadow, and geology and soils; identify mitigation measures for potentially significant impacts; and analyze whether proposed mitigation measures would reduce the significant environmental impacts to less than significant levels. This focused EIR also analyzes alternatives to the Proposed Project that could substantially reduce or eliminate one or more of the significant impacts of the Proposed Project, but could still feasibly attain most of the basic Project objectives. All other environmental topics are addressed only in the CPE Checklist, because the analysis in the Eastern Neighborhoods PEIR was determined to have adequately addressed the Proposed Project's potential impacts associated with these topics.

Subsequent to publication of the NOP and CPE Checklist for the 1979 Mission Street Mixed Use Project on January 28, 2015, the Project Sponsor modified the design to address the preliminary wind tunnel analysis, which identified a hazardous wind condition on the Northeast 16th Street Mission BART Station Plaza that would result from the proposed building. The modified design entailed changes to the building design at the southwestern corner of the Mission Street component to include a chamfered corner,⁶ instead of having a 90 degree right angle. In addition, canopies were added on the ground floor along the principal retail frontages. The modified design eliminated the potentially hazardous wind conditions (see Section 4.B, Wind and Shadow, for a description of wind impacts for the Proposed Project). These design modifications would result in a very minor reduction in overall building square footage, less than 1,000 square feet from that described in the NOP and CPE Checklist. The overall programming and number of residential units would remain the same as originally proposed. Because the changes to the Proposed Project design are minor, and would result in a slightly smaller project than described in the CPE Checklist, the Proposed Project as currently described in this EIR is within the parameters of the project analyzed in the CPE Checklist, and no further analysis of the environmental topics addressed in the CPE Checklist is required.

⁶ A chamfer is a flat surface resulting from cutting off the edge of a volume.

4. Draft EIR and Final EIR

This Draft EIR is available for public review and comment during the approximately 60-day public review period from May 5, 2016, to 5:00 p.m. on July 5, 2016, during which time the Planning Commission will hold a public hearing on the Draft EIR. The Draft EIR hearing before the Planning Commission will occur on June 9, 2016. Following the close of the public comment period, the Planning Department will prepare and publish a Responses to Comments document containing all substantive comments received on the Draft EIR, as well as the Planning Department's responses to those comments. The document may also contain specific changes to the Draft EIR.

This Draft EIR, together with the Responses to Comments document (including revisions to the Draft EIR), will be considered by the Planning Commission in an advertised public meeting, and then certified as a Final EIR if deemed adequate.

5. Public Participation

Chapter 31 of the San Francisco Administrative Code encourages public participation in the planning and environmental review processes. The public has opportunities to state its views during a public review and comment period, and a public hearing before the Planning Commission.

This Draft EIR was published on May 4, 2016. The public comment period for this EIR is 61 days.⁷ The public is invited to submit written comments on the adequacy and accuracy of the Draft EIR. Comments should address the sufficiency of the document in identifying and analyzing possible significant environmental impacts and how they may be avoided or mitigated. CEQA Guidelines Section 15096(d) also requests responsible agencies to review project activities that are in the agency's areas of expertise, that are required to be carried out or approved by the agency, or that will be subject to the exercise of powers by the agency, and to provide comments supported by either oral or written documentation.

Written comments should be submitted to:

Sarah B. Jones, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, California 94103

Public comments may also be submitted by email to Sarah.B.Jones@sfgov.org or Debra.Dwyer@sfgov.org. Comments must be received by 5:00 p.m. on July 5, 2016.

Public comments may also be provided during the public hearing, which has been scheduled before the Planning Commission for June 9, 2016, in Room 400, City Hall, 1 Dr. Carlton B. Goodlett Place, San Francisco, California. Please call (415) 558-6422 the week of the hearing for a recorded message that provides the Commission agenda or visit the Planning Department's website for the Commission agenda and the link to the EIR.

⁷ The 60th day of the review period falls on the July 4 holiday, when the Planning Department is closed. Therefore, written public comments will be accepted until 5:00 p.m. on Tuesday, July 5, 2016.

Copies of the Draft EIR are available at the Planning Information Center, San Francisco Planning Department, 1660 Mission Street, 1st Floor, San Francisco, California 94103. The Draft EIR is also available for viewing or downloading at the Planning Department website: <http://www.sf-planning.org/sfceqadocs> (search for File No. 2013.1543E). You may also request that a copy be sent to you by calling (415) 575-9031, or by emailing the EIR Coordinator, Debra Dwyer, at debra.dwyer@sfgov.org. The distribution list for the Draft EIR, and all documents referenced in this Draft EIR, are available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, California 94103, as part of File No. 2013.1543E.

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CHAPTER 2

Project Description

This chapter describes the Proposed Project evaluated in this EIR. Topics addressed in this chapter include an overview of the Proposed Project, the Project Sponsor's objectives, a description of the Project location, a description of the existing conditions at the site, a description of the Project vicinity and the surrounding land uses, a description of the Proposed Project's characteristics, and the intended uses of this EIR, including the required approvals.

A. Project Overview

The 57,312 square foot project site is in the Inner Mission neighborhood of San Francisco (Assessor's Block 3553, Lot 052) on the block bounded by Mission Street to the west, 16th Street to the south, Capp Street to the east, and 15th Street to the north. The project site forms the northern and eastern boundaries of the street level plaza and northeastern entrance to the 16th Street Mission Bay Area Rapid Transit (BART) Station (hereinafter called the Northeast BART Plaza). The 16th Street Mission BART Station is one of the region's most significant transit hubs. No residential uses exist on the project site.

The two existing commercial buildings and surface parking lot on the site would be demolished, and the Proposed Project would be constructed to include 331 residential units, ground floor retail uses, off street loading and basement parking, publically accessible open space along the Northeast BART Plaza, and private and common open space inside the building. Specific project details are provided in Section 2.F, Project Characteristics, on page 2-7. The Proposed Project would include an affordable housing component that would provide an equivalent number of affordable units that would meet the Planning Code Section 415 requirements. The Proposed Project would have approximately 291,027 gross square feet (gsf) of residential uses, with approximately 34,198 gsf of multiple tenant commercial spaces and approximately 63,687 gsf of parking and building services. The parking and building services would be in the basement and ground floor and would include 163 parking spaces (136 for residential use, 22 for commercial use, four for car share use, and one Americans with Disabilities Act [ADA] accessible van parking space), three freight loading spaces, 162 Class I bicycle parking spaces, and areas for mechanical and electrical equipment.¹ The Proposed Project would also provide 30 Class II bicycle parking spaces in two on street bicycle corrals: one on Mission Street and another on Capp Street.²

¹ Class I bicycle parking is a space 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 (Planning Code Section 155.1).

² Class II is a space in a publicly accessible, highly visible location intended for transient or short term use by visitors, guests, and patrons to the building or use (Planning Code Section 155.1). Bicycle corrals are installed within the parking lane in the public right-of-way.

The Proposed Project would have three separate residential components above the podium level (level 2 above the ground floor retail), including a six to ten story Mission Street residential component, a seven to ten story 16th Street residential component, and a four to five story Capp Street residential component. An interior courtyard on level 2 and rooftop areas above all three components would provide a combination of private and common open space for residents. The Mission Street and 16th Street residential components would each have a height of 105 feet to 121 feet inclusive of the elevator penthouse. The Capp Street residential component would have a maximum height of 55 feet (71 feet when including the elevator penthouse). The Proposed Project is consistent with the maximum building height limits established by the City's Zoning Map. The rooftop mechanical equipment would be screened.³ Commercial uses would be at the ground floor level along Mission and 16th Streets. Three residential units, truck loading, ADA accessible van space, and the entrance to the basement garage would be at the ground floor level on Capp Street.

The project site is in the Mission Area Plan of the Eastern Neighborhoods Rezoning and Area Plans. Development of the site was addressed at the program level in the Programmatic Environmental Impact Report for the Eastern Neighborhoods Rezoning and Area Plans (Eastern Neighborhoods PEIR), as described further under Section 2.G, Intended Uses of the EIR.

B. Project Sponsor's Objectives

The Project Sponsor and developer is Maximus BP Real Estate Partners, and the project architect is Skidmore Owings & Merrill. The Project Sponsor's objectives for the Proposed Project are to:

- Implement the objectives and policies of the Mission Area Plan of the Eastern Neighborhood Rezoning and Area Plans by activating a key site along the Mission District transit corridor, providing small business and employment opportunities, building housing that is affordable to a range of incomes, improving the quality and safety of the open space and streetscape, and providing other public benefits that would strengthen the mixed use character of the Mission Neighborhood Commercial Transit District.
- Promote transit ridership by constructing a substantial number of new housing units at a major transit hub at the development density and building heights anticipated by the General Plan and the Mission Area Plan of the Eastern Neighborhoods Plan.
- Replace the existing one story structures on the site with a mixed use and mixed income residential project of superior design that would continue to implement the vision of the Mission Area Plan.
- Revitalize the Northeast BART Plaza by setting the retail storefronts back from the common property line with BART property to allow active ground floor uses that would enhance pedestrian safety and offer pedestrian interest and small business opportunities.
- Redevelop a site that currently has no housing, is adjacent to a local and regional public transit hub, and has been identified for high density housing through multiple public community processes for more than 50 years with a mixed use residential project, with a portion of the units at market rate and

³ Pursuant to Planning Code Section 260(b)(1)(B), the mechanical and elevator penthouses are exempt from the Planning Code height limits, but are considered in the context of the environmental review.

below market rate housing units affordable to low, moderate workforce, and middle class income households without displacing any existing residential units.

- Improve the safety and accessibility of the streetscape along Mission, 16th, and Capp Streets adjacent to the project site by improving or adding street tree wells and special sidewalk paving, installing sidewalk bulb-outs along Capp Street, and widening the Capp Street sidewalk.
- Provide publicly accessible open space on a site that would be privately owned by the Project Sponsor.

C. Project Location

The project site comprises Assessor's Block 3553, Lot 052, which is improved with two one story retail/commercial buildings (1979/1985 Mission Street and 2950 to 2978 16th Street) (currently occupied by a Walgreens pharmacy, a Burger King fast food restaurant, a bar, and a small grocery store) and a surface parking lot with about 54 parking spaces. No residential uses exist on the project site. The 57,312 square foot parcel is in the Inner Mission neighborhood of San Francisco, on the block bounded by Mission Street to the west, 16th Street to the south, Capp Street to the east, and 15th Street to the north. The project site forms the northern and eastern boundaries of the Northeast BART Plaza at the 16th Street Mission BART Station, as shown on Figure 2-1.

The project site is in the Mission Area Plan of the Eastern Neighborhoods Rezoning and Area Plans and in the Mission Street Neighborhood Commercial Transit Zoning District. The portions of the site along Mission and 16th Streets are in a 105-E height and bulk district and in a 55-X height and bulk district along Capp Street.⁴ The project site is also in three special use districts: the Mission Street Formula Retail Restaurant Subdistrict, the Mission Alcohol Restricted Use District, and the Fringe Financial Service Restricted Use District.



Both Mission Street and South Van Ness Avenue, which is two blocks to the east of the project site, are major roadways through the Mission neighborhood. The regional roadways that serve the site are U.S. Highway 101, Interstate 80, and Interstate 280. U.S. Highway 101 south provides access to and from the project vicinity via an on-ramp at South Van Ness Avenue and Division Street, and an off-ramp at Mission Street and Duboce Avenue. In addition to BART service adjacent to the project site, several San Francisco Municipal Railway (Muni) bus routes—14 Mission, 14R Mission Rapid (formerly 14L Mission Limited), 14X Mission Express, 22 Fillmore, 33 Stanyan, 55 16th Street, and 49 Van Ness-Mission⁵ — provide connections from the site to various locations in San Francisco. Two University of California San Francisco shuttle service lines have a stop near the Northeast BART Plaza. The red line connects the 16th Street Mission BART Station with the Mission Bay Campus. The yellow line provides connection with the 16th Street Mission BART Station and the San Francisco General Hospital.

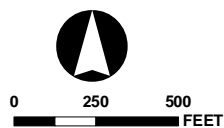
⁴ The E bulk designation limits the portion of a building that is over 65 feet tall to a maximum length of 110 feet and a maximum diagonal dimension of 140 feet; and the X bulk designation has no bulk controls (Planning Code Section 270).

⁵ As part of the Transit Effectiveness Project (TEP) now called Muni Forward, the 49 Van Ness-Mission bus is approved for limited stop service and will become the 49L Van Ness-Mission Limited. Additional information regarding Muni Forward/TEP is available online at <https://www.sfmta.com/projects-planning/projects/muni-forward-0>. Accessed February 12, 2016.



Source: URS, 2014

-  BART Station Entrance and Plaza
-  Park/Open Space



PROJECT LOCATION

1979 Mission Street Project
San Francisco, California

FIGURE 2-1

D. Existing Conditions

The project site is improved with two buildings, both constructed in 1909, totaling approximately 50,915 gsf and ranging in height from 23 to 30 feet, and a surface parking lot. No residential uses exist on the project site. The existing buildings and uses on the site are summarized in Table 2-1, and are shown on Figure 2-2. The 1979/1985 Mission Street building on the northwestern portion of the site is an approximately 15,477 gsf, one story building with a mezzanine and partial basement. Constructed in 1909, the northern portion of the building is currently occupied by a retail pharmacy (Walgreens), and the southern portion is vacant. The 2950-2978 16th Street building along the southern portion of the site is an approximately 35,438 gsf one story building with a mezzanine and basement, both of which extend along most of the building. The 16th Street building is currently occupied by two restaurants, a grocery store, and a bar (Burger King and Mission Hunan Restaurant, HWA Lei Market, and City Club, respectively). The northern portion of the 2950-2978 16th Street building is vacant. An approximately 24,210 square foot surface parking lot with 54 parking spaces is at the northeastern corner of the site, is accessed from Capp Street, and is designated for Walgreens shoppers.

Table 2-1
Existing Site Characteristics

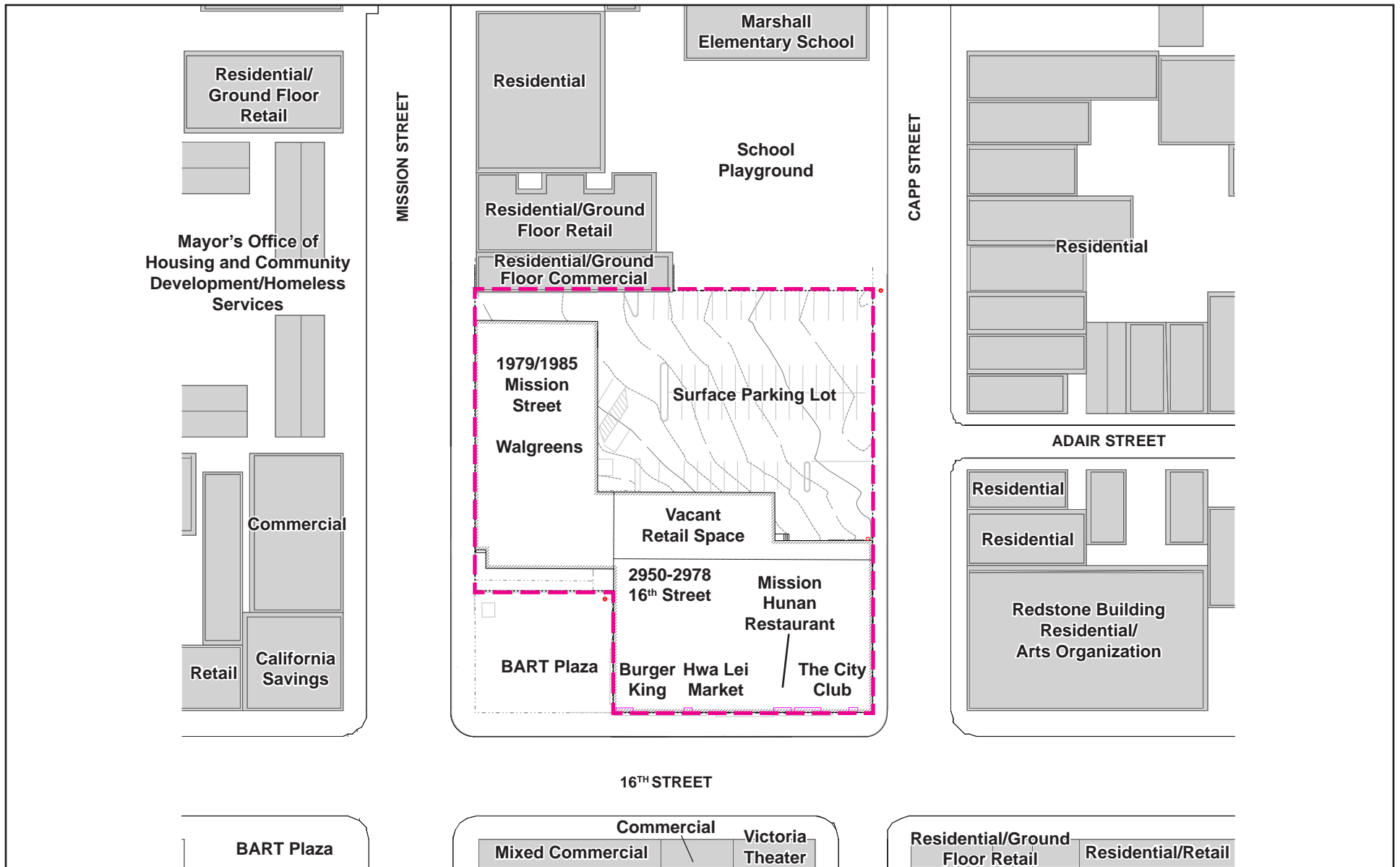
Address	Building Area (square feet)	Year Constructed	Building Characteristics/Use
1979/1985 Mission Street	15,477	1909	One story building with basement and mezzanine/retail use, retail pharmacy (Walgreens)
2950 to 2978 16th Street	35,438	1909	One story building with partial basement and partial mezzanine/restaurant, retail, bar/entertainment uses
None (Capp Street)	—	N/A	Surface parking lot
Total	50,915	—	—

Source: Maximus Real Estate Partners, 1979 Mission Street Environmental Evaluation Application, January 2014.

The project site is fairly level, sloping gently downward to the east, and is entirely covered by buildings or surface pavement. There are five street trees along Mission Street, and no street trees adjacent to the project site on 16th or Capp Streets.

The existing buildings on the project site were previously evaluated in the Inner Mission North Historic Resource Survey and found to be ineligible for individual listing in the National Register of Historic Places or the California Register of Historical Resources, and found to be not qualified for a local listing,⁶ or as a contributor to any potential historic districts in the area. Individually designated historical resources are located directly to the east and to the south of the project site along Mission and 16th Streets.

⁶ San Francisco Planning Department, 2011. Inner Mission North Historic Resource Survey. Available online at: sf-planning.org/index.aspx?page=2686; and at the Planning Department, 1650 Mission Street, Suite 400, San Francisco as part of Case file 2011.0401U. Accessed June 2014.



Source: Skidmore, Owings & Merrill LLP, 2014.

 Project Site



Not to Scale

EXISTING SITE PLAN

1979 Mission Street Project
San Francisco, California

FIGURE 2-2

Available street parking along the Proposed Project's frontage consists of five 20 foot long general metered spaces on the eastern side of Mission Street, three metered commercial loading spaces (two 26 foot long spaces and one 22 foot long space with restricted loading hours) on the northern end of 16th Street, and 10 to 11 unmarked and unmetered general on street parking spaces on the western side of Capp Street.

E. Project Vicinity and Surrounding Land Uses

The project site is in the Inner Mission neighborhood, immediately adjacent to the Northeast BART Plaza at the 16th Street Mission BART Station. The immediate neighborhood is characterized by a mix of commercial and residential uses, as shown on Figure 2-2. Buildings range in height from two to five stories, typically with ground floor retail and residential or commercial uses above. Generally, there are retail/commercial uses along Mission and 16th Streets, and residential uses along Capp Street. Marshall Elementary School, at 1575 15th Street, is immediately north of the site on Capp Street, with its main entrance on 15th Street and pick up and drop off on Capp Street.

F. Project Characteristics

The Proposed Project would demolish the two existing commercial buildings and a surface parking lot on the site and construct a new 388,912 gsf mixed use project. The Proposed Project would include 331 dwelling units, 34,198 gsf of commercial space inclusive of common areas, 163 off street parking spaces (136 for residential use, 22 for commercial use, four for car share use, and one ADA accessible van parking space), three freight loading spaces, and 192 bicycle parking spaces (162 Class I secure parking and 30 Class II bicycle parking spaces in two bicycle corrals on the street). The Proposed Project would have an interior courtyard, three roof decks, and accessible privately owned open space next to the Northeast BART Plaza (as summarized in Table 2-2). The Proposed Project would range in height from 4 to 10 stories, with a height of 105 feet and a maximum height of 121 feet, including the elevator penthouse as allowed under the Planning Code.

The ground floor would have commercial uses along Mission and 16th Streets and residential uses along Capp Street. Three residential components would be above the podium level (level 2): a 6 to 10 story Mission Street residential component; a 7 to 10 story 16th Street residential component; and a 4 to 5 story Capp Street residential component. The Mission Street and 16th Street residential components would be 105 feet high, with a maximum height of 121 feet inclusive of the elevator penthouse. The Capp Street residential component would be 55 feet, with a maximum height of 71 feet inclusive of the elevator penthouse. An interior courtyard on level 2, patios, and rooftop terraces would provide common open space for project residents as well as private usable open space for 29 units.

The proposed site plan is shown on Figure 2-3, the basement parking garage is shown on Figure 2-4, and the proposed floor plans are shown on Figures 2-5 through 2-12. Figure 2-13 shows the roof plan with open space, and Figure 2-14 shows the streetscape improvements. Figures 2-15 through 2-20 show the Proposed Project elevations, sections, and massing. Figures 2-21 through 2-23 show visual simulations for the Proposed Project.

Table 2-2
Project Characteristics

Lot	Dimensions
Size	57,312 square feet
Length	185 feet (Mission Street)/160 feet (16th Street)/260 feet (Capp Street)
Height	Ranging from 55 to 105 feet/up to 71 to 121 feet with elevator penthouses ¹
Proposed Uses	Area (gsf)
Residential	291,027
Commercial (Retail)	34,198
Parking and Building Services	63,687
Total	388,912
Proposed Units	Amount (Approx. Percent)
Dwelling Units	331 (100%)
Micro	8 (2.4%)
Studio	114 (34.4%)
1 Bedroom	75 (23%)
2 Bedroom	122 (36.8%)
3 Bedroom	11 (3.3%)
4 Bedroom	1 (0.1%)
Vehicle Parking Spaces	163 ²
Bicycle Parking Spaces	192 ³
Open Space	Area (sf)
Publicly accessible (adjacent to the Northeast BART Plaza to the northern and eastern sides)	2,175
Common (roof decks and interior podium courtyard)	28,741 ⁴
Private decks	10,234 ⁵

Table 2-2
Project Characteristics (Continued)

Building Characteristics	Description
Mission Street residential component ⁶	6 to 10 stories (ground floor retail, residential above)/ 65 feet to 105 feet in height, 121 feet inclusive of the elevator penthouse
16th Street residential component ⁶	7 to 10 stories (ground floor retail, residential above)/ 75 feet to 105 feet in height, 121 feet inclusive of the elevator penthouse
Capp Street residential component ⁶	4 to 5 stories (residential)/ 55 feet in height, up to 71 feet inclusive of the elevator penthouse
Ground floor	Retail: 34,198 gsf multiple tenant spaces exclusive of common areas; Residential: 3 residential lobbies; 3 residential units on Capp Street; and Garage: 3 freight loading spaces; 1 ADA accessible van parking space; building services; and 4 Class I bicycle parking spaces for commercial tenants.
Basement	162 vehicle parking spaces (22 retail parking spaces; 4 car share spaces; and 136 residential parking spaces); 158 Class I bicycle parking spaces; and Building services, including an emergency generator.

Source: Maximus Real Estate Partners, 1979 Mission Street Conditional Use Authorization Application, June 2015.

Notes:

- ¹ Consistent with the Planning Code Height and Bulk designations for the project site, the building heights range from 45 to 105 feet; up to 16 feet for the elevator penthouse are exempt from this height limit.
- ² Vehicle parking spaces: for residents – 136 off street parking spaces (92 of which would be stacker spaces); for retail – 22 off street parking spaces. In addition, there would be four car share spaces and one ADA accessible van space.
- ³ Bicycle parking spaces: 162 Class I bicycle parking spaces in the basement floor; 30 Class II bicycle parking spaces in on street bicycle corrals.
- ⁴ Usable open space requirement for the residential units are provided in compliance with Planning Code Section 736.93.
- ⁵ 29 units have private balconies, terraces, or patios as usable open space that meet the Planning Code requirements Section 135. Of the 29 units, 10 have qualifying patios on the courtyard in excess of 100 square feet each, 15 have qualifying balconies or terraces exceeding 80 square feet, and 4 have qualifying balconies exceeding 26.67 square feet.
- ⁶ The Proposed Project is one building with three separate structures (i.e., residential components) above a common ground floor and basement level.

ADA = Americans with Disabilities Act

BART = Bay Area Rapid Transit

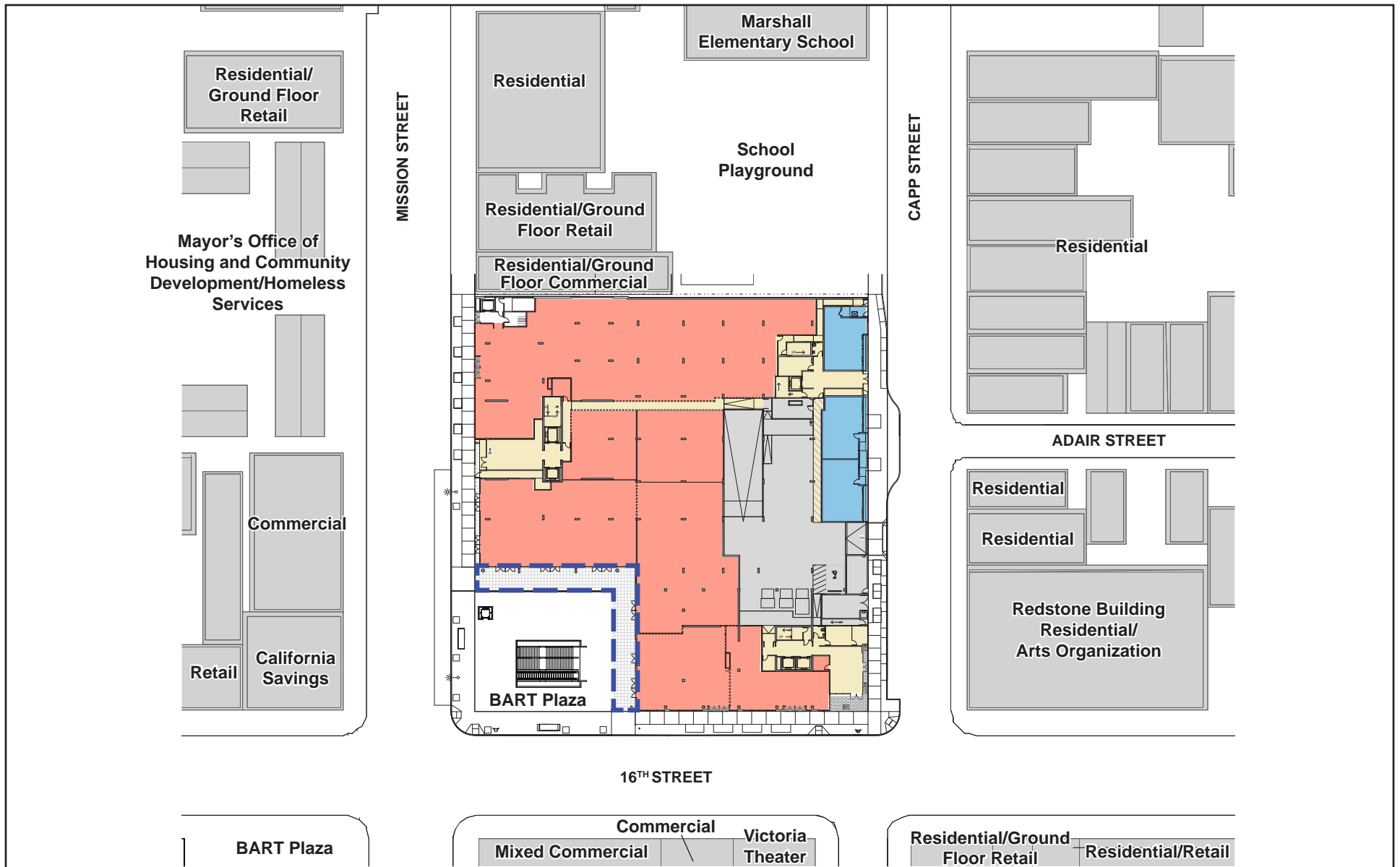
gsf = gross square feet

sf = square feet

The Proposed Project would be supported with a mat foundation. The mat foundation would be supported by drilled piers that would transfer the building load to the dense native sand below. Pile driving would not be used for construction of the Proposed Project.^{7,8} The site would be excavated up to approximately 22 feet below grade, removing approximately 34,523 cubic yards of soil.

⁷ Maximus – BP 1979 Mission LLC, 2014. Environmental Evaluation Application for 1979 Mission Street Project, Attachment to Application for Block 3553, Lot 052. January 14.

⁸ Treadwell and Rollo, 2013. *Geotechnical Investigation for 1979 Mission Street San Francisco, California*. January 30.



Source: Skidmore, Owings & Merrill LLP, 2014.

- Retail
- Multi-family Residential Lobby
- Residential Unit
- Garage/Loading

New Privately Owned, Publicly Accessible Open Space

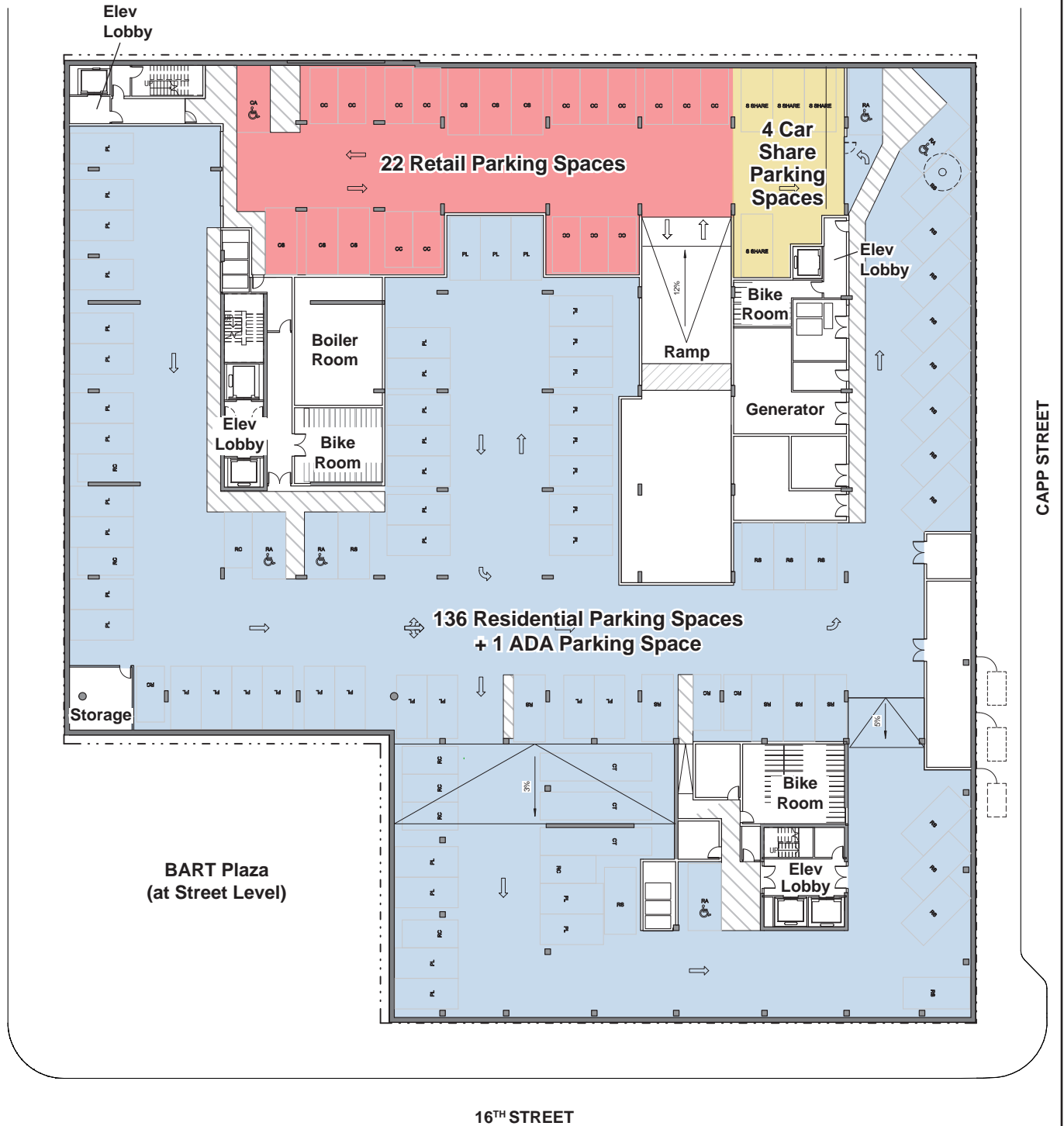


Not to Scale

PROPOSED SITE PLAN AND GROUND FLOOR PLAN

1979 Mission Street Project
San Francisco, California

FIGURE 2-3



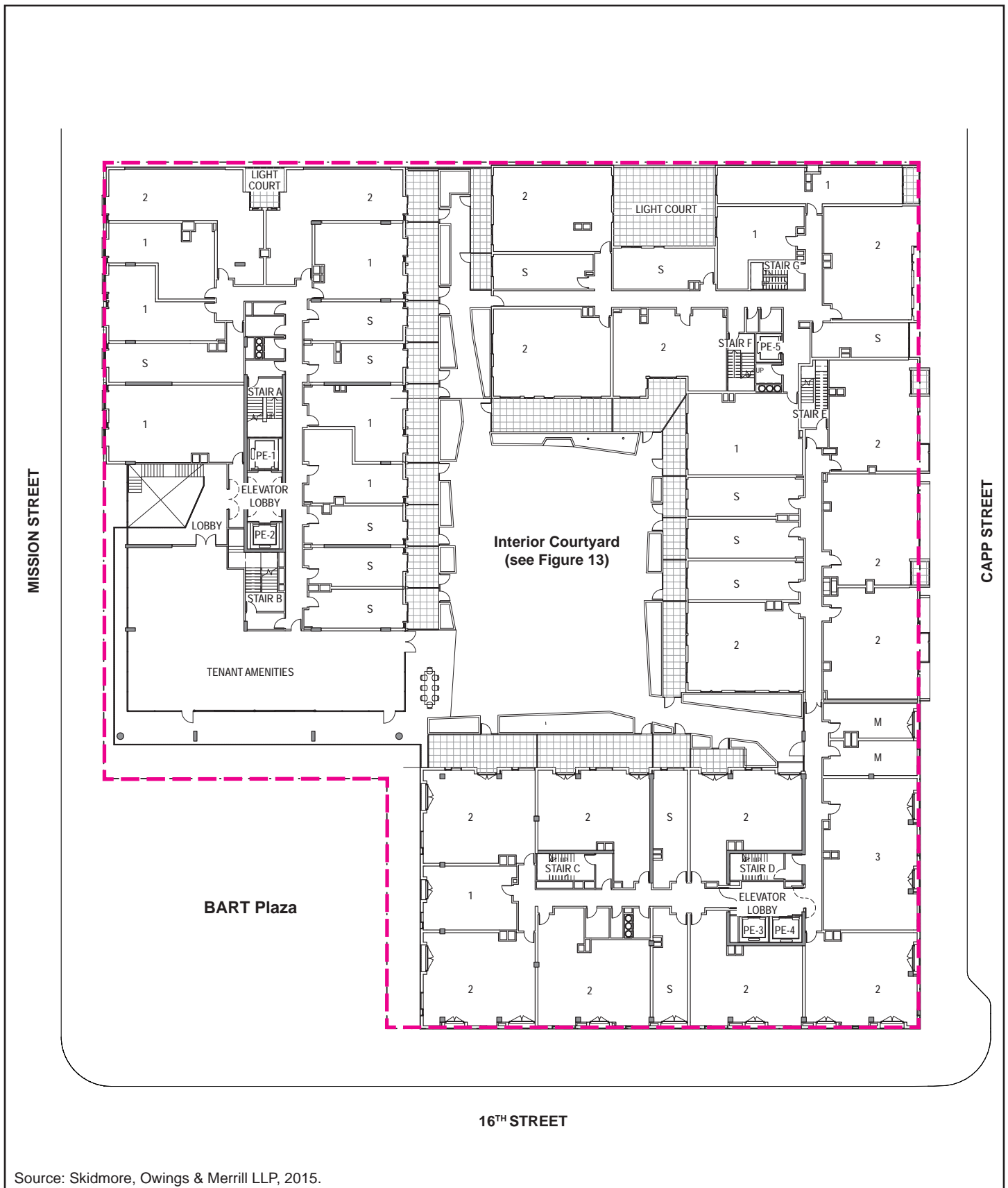
Source: Skidmore, Owings & Merrill LLP, 2014.



BASEMENT PLAN – PARKING GARAGE

1979 Mission Street Project
San Francisco, California

FIGURE 2-4



Source: Skidmore, Owings & Merrill LLP, 2015.

- Project Site
 Private Open Space
 M = Micro
 S = Studio
 1 = One Bedroom
 2 = Two Bedroom
 3 = Three Bedroom
 4 = Four Bedroom

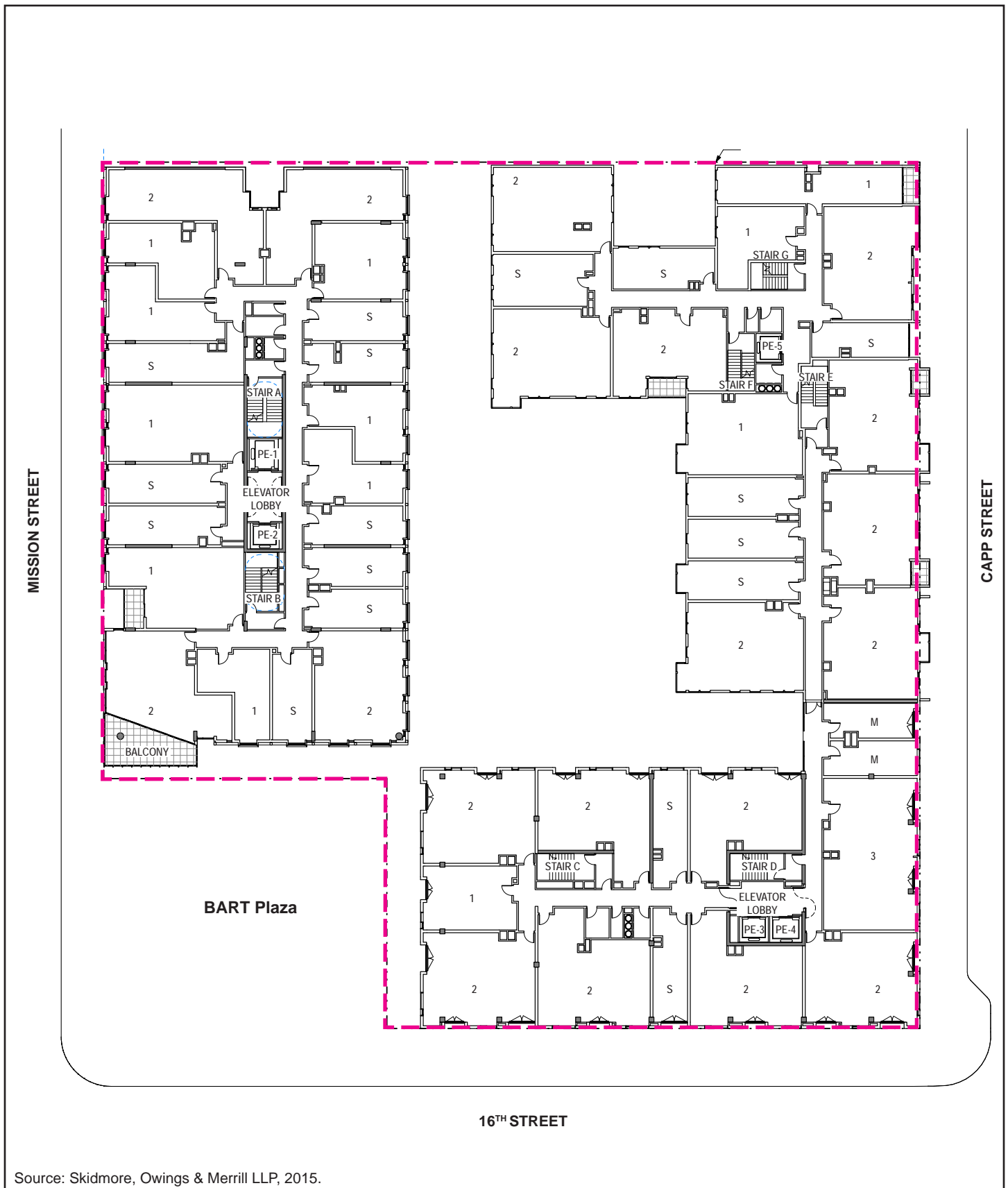


Not to Scale

FLOOR PLAN – LEVEL 2

1979 Mission Street Project
San Francisco, California

FIGURE 2-5



Source: Skidmore, Owings & Merrill LLP, 2015.

- Project Site
- Private Open Space
- M = Micro
- S = Studio
- 1 = One Bedroom
- 2 = Two Bedroom
- 3 = Three Bedroom
- 4 = Four Bedroom



Not to Scale

FLOOR PLAN – LEVELS 3 TO 4

1979 Mission Street Project
San Francisco, California

FIGURE 2-6



Source: Skidmore, Owings & Merrill LLP, 2015.

- Project Site
- Private Open Space
- M = Micro
- S = Studio
- 1 = One Bedroom
- 2 = Two Bedroom
- 3 = Three Bedroom
- 4 = Four Bedroom

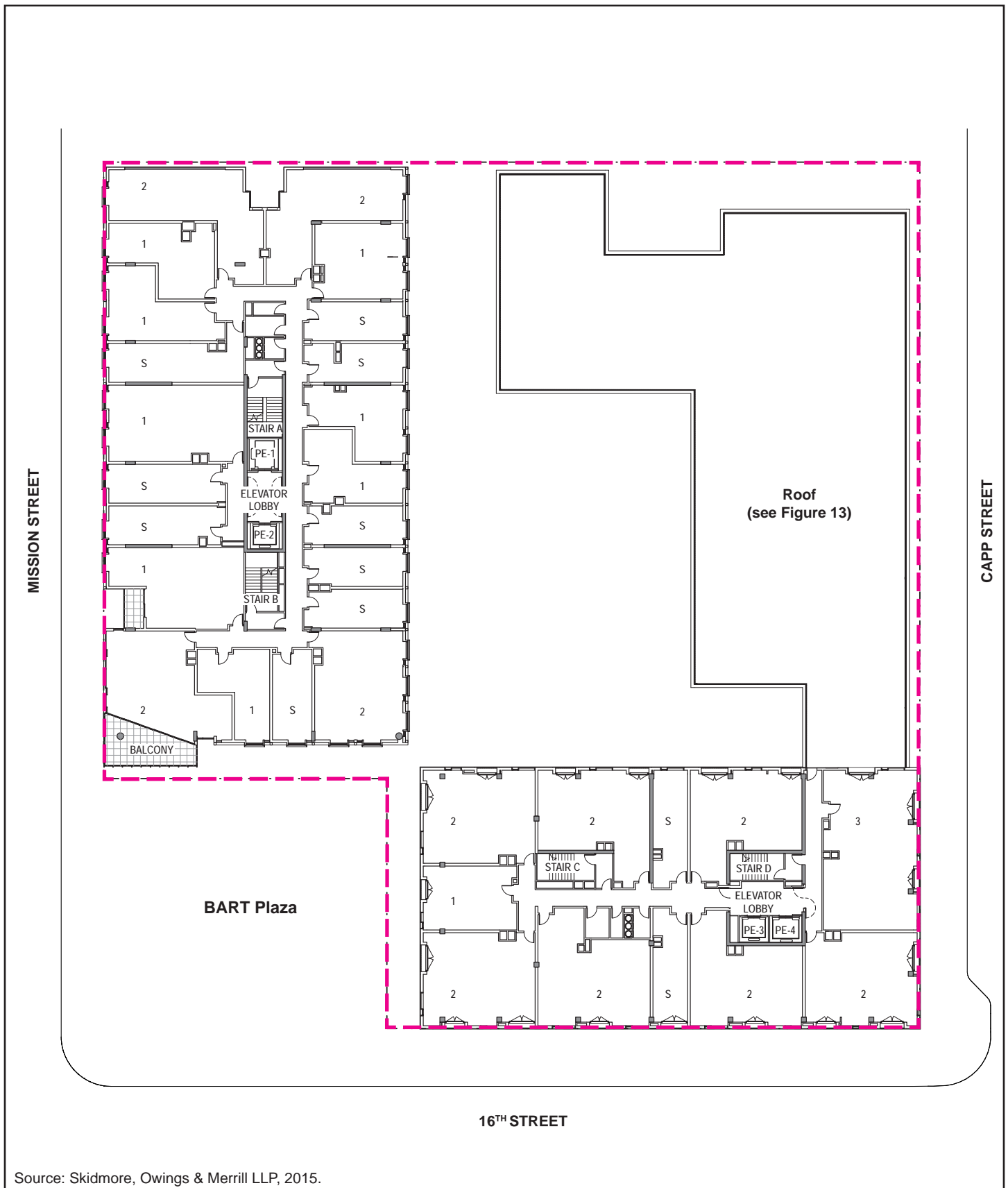


Not to Scale

FLOOR PLAN – LEVEL 5

1979 Mission Street Project
San Francisco, California

FIGURE 2-7



- Project Site
 Private Open Space
- M = Micro
 S = Studio
 1 = One Bedroom
 2 = Two Bedroom
 3 = Three Bedroom
 4 = Four Bedroom



Not to Scale

FLOOR PLAN – LEVEL 6

1979 Mission Street Project
San Francisco, California

FIGURE 2-8



Source: Skidmore, Owings & Merrill LLP, 2015.

- Project Site
 Private Open Space
 M = Micro
 S = Studio
 1 = One Bedroom
 2 = Two Bedroom
 3 = Three Bedroom
 4 = Four Bedroom

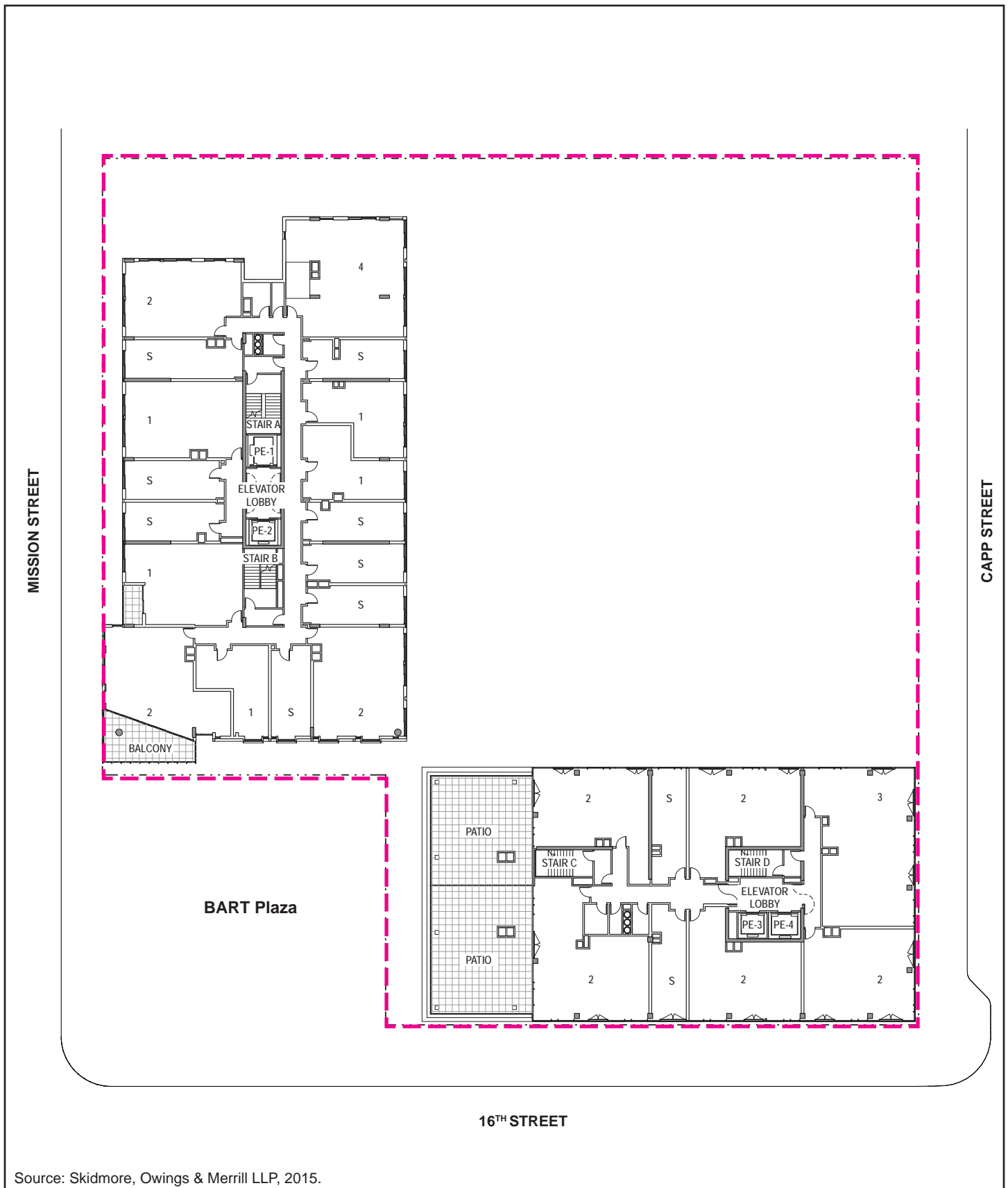


Not to Scale

FLOOR PLAN – LEVEL 7

1979 Mission Street Project
San Francisco, California

FIGURE 2-9



- Project Site
 Private Open Space
 M = Micro
 S = Studio
 1 = One Bedroom
 2 = Two Bedroom
 3 = Three Bedroom
 4 = Four Bedroom

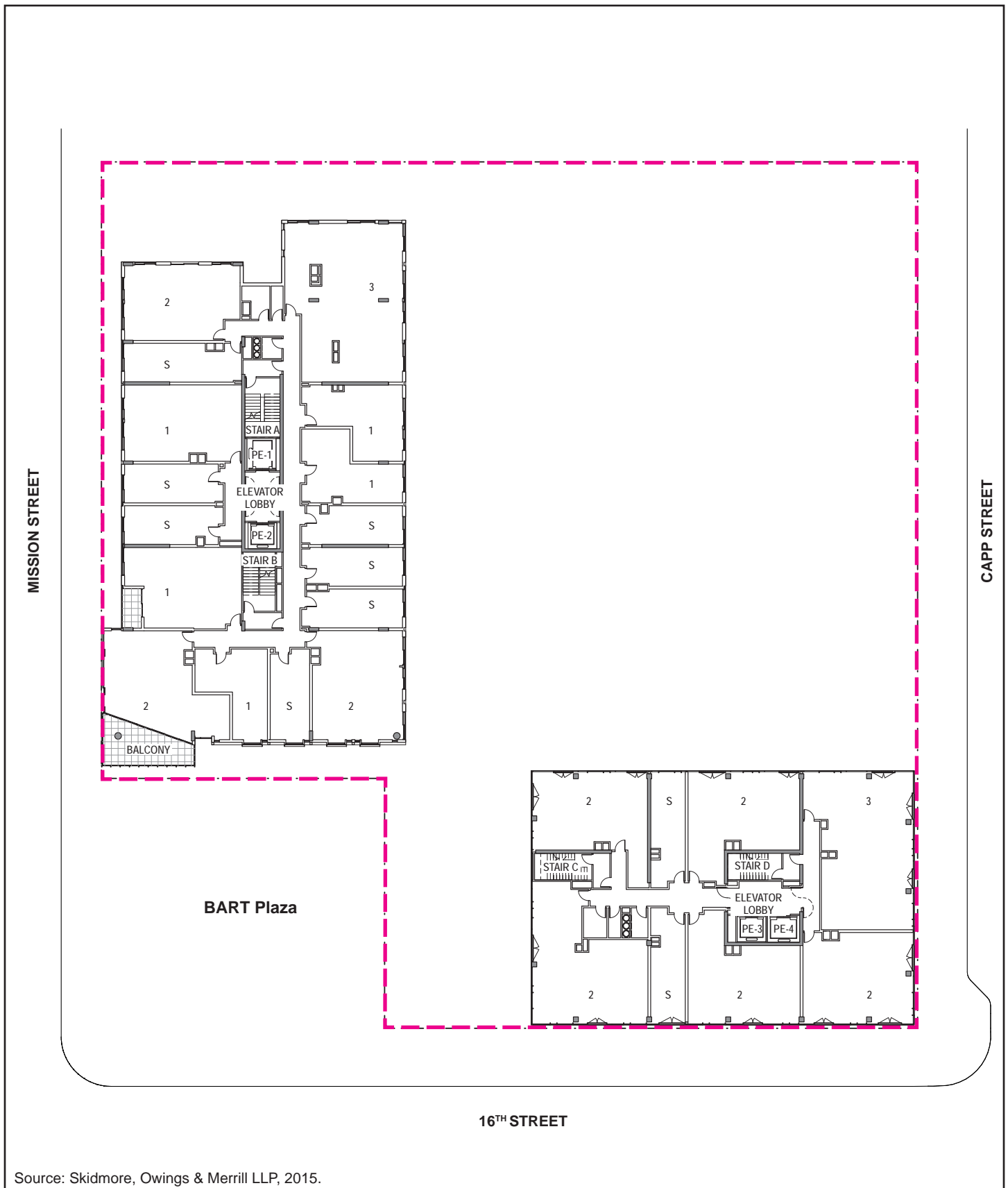


Not to Scale

FLOOR PLAN – LEVEL 8

1979 Mission Street Project
San Francisco, California

FIGURE 2-10



- Project Site
 Private Open Space
 M = Micro
 S = Studio
 1 = One Bedroom
 2 = Two Bedroom
 3 = Three Bedroom
 4 = Four Bedroom

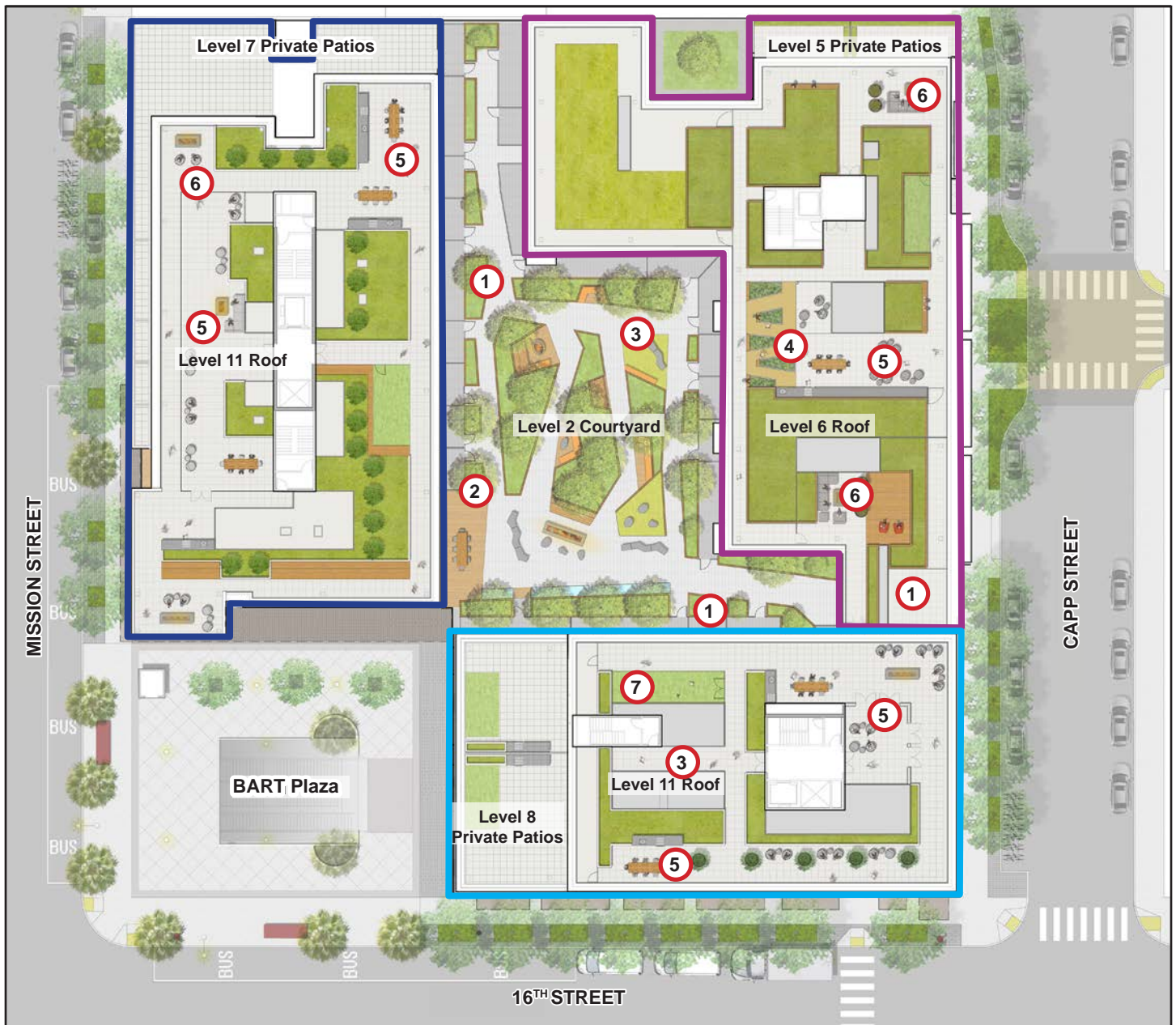


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FLOOR PLAN – LEVEL 10

1979 Mission Street Project
San Francisco, California

FIGURE 2-12



- | | |
|---------------------------|---|
| ① Private Patios, typical | Mission Street Building (105 Feet, 10 Stories) |
| ② Amenity Space | Capp Street Building (55 Feet, 5 Stories) |
| ③ Informal Play Area | 16th Street Building (105 Feet, 10 Stories) |
| ④ Urban Agriculture Area | |
| ⑤ Event Space | |
| ⑥ Outdoor Lounge Area | |
| ⑦ Dog Run | |

Source: Skidmore, Owings & Merrill LLP, 2014.



FLOOR PLAN – ROOF
 1979 Mission Street Project
 San Francisco, California
FIGURE 2-13



- 1 Mission Street
Planted tree wells with pedestrian pass-throughs and special paving.
- 2 16th Street
Planted tree wells with pedestrian pass-throughs and special paving.
- 3 Capp Street
Stormwater planting tree wells with pedestrian pass-throughs and special paving.
- 4 BART Plaza

- 5 Special Paving
- 6 Bulb-out
- 7 Raised Crossing
- 8 Palm
- 9 Bike Corral, typical
- 10 Bus Shelter
- 11 Street Light, typical

- New Privately Owned, Publicly Accessible Open Space
- Proposed
- Existing to Remain

Source: Skidmore, Owings & Merrill LLP, 2014.



STREETSCAPE IMPROVEMENTS

1979 Mission Street Project
San Francisco, California

FIGURE 2-14

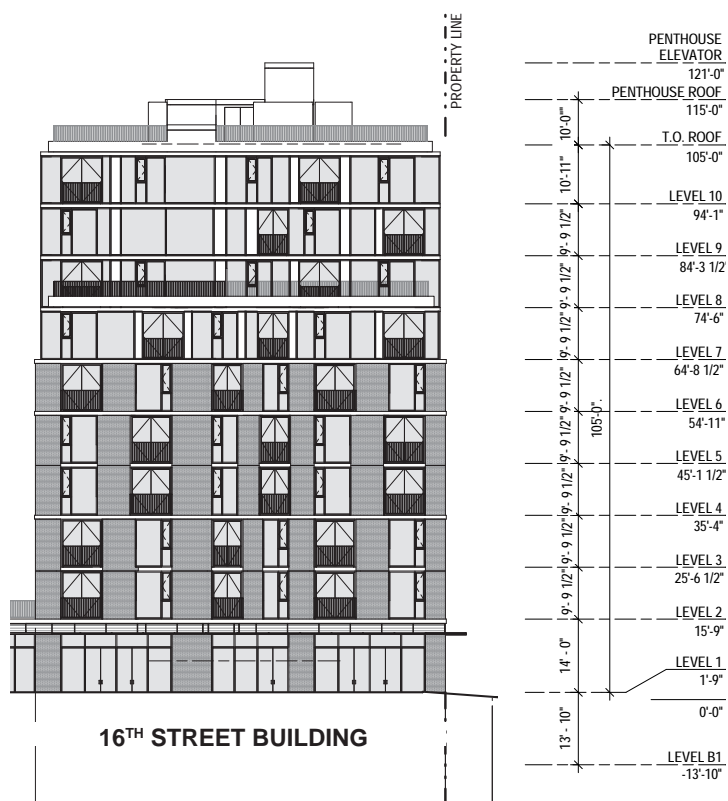
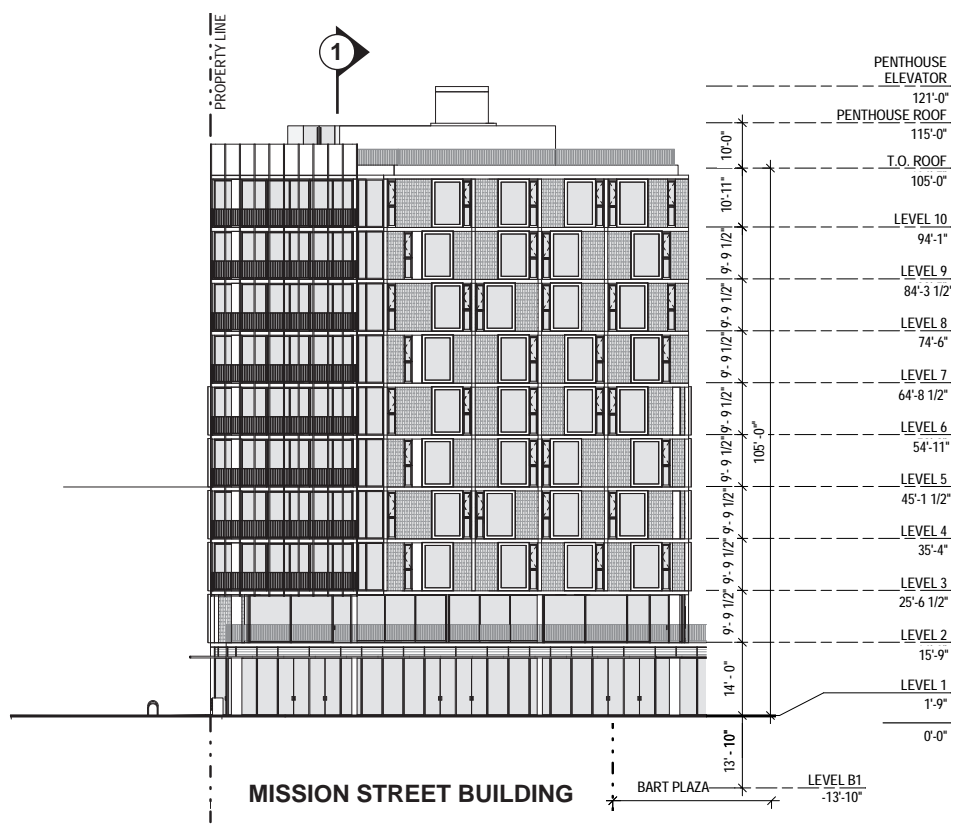


FIGURE 2-15



Source: Skidmore, Owings & Merrill LLP, 2015.

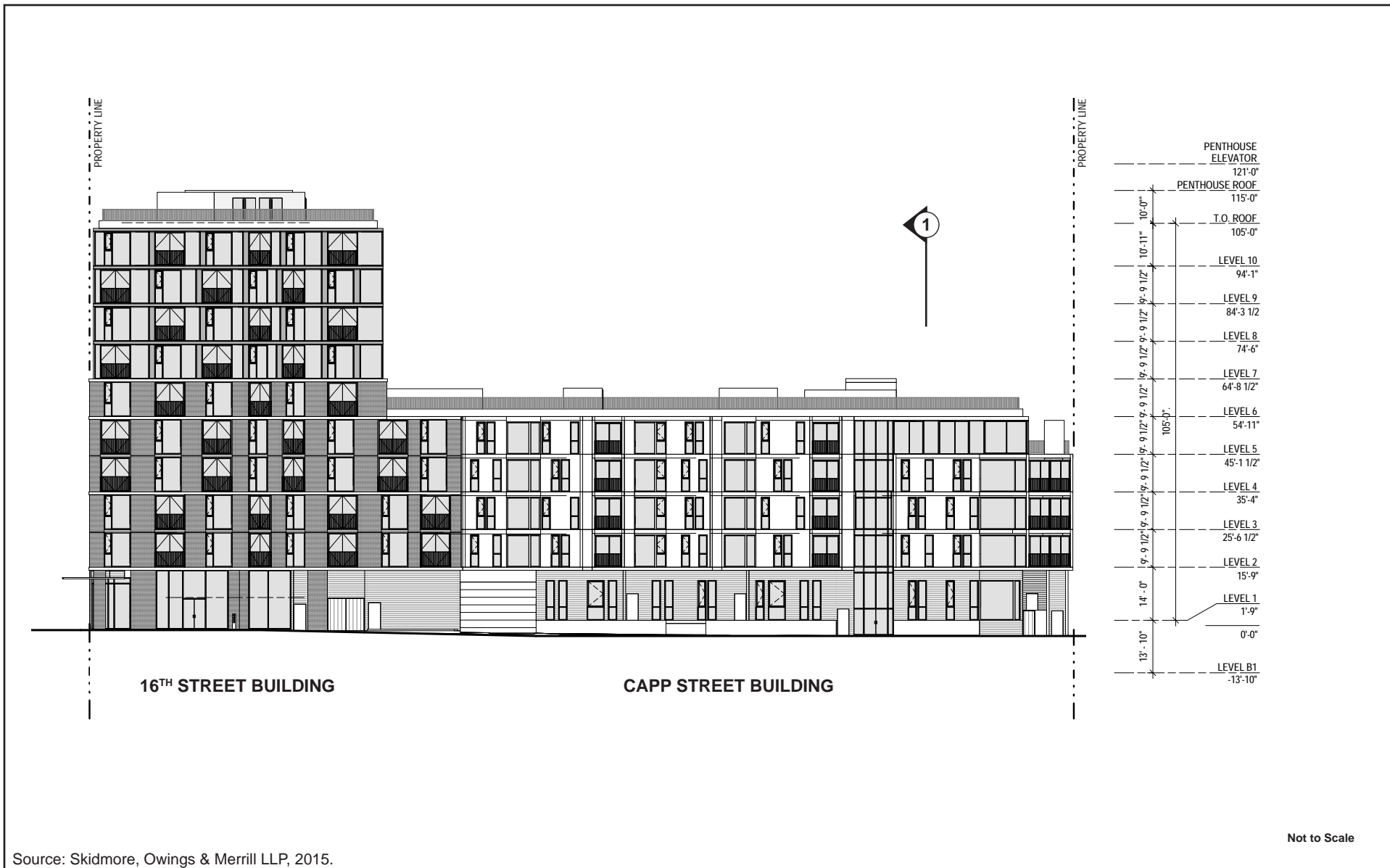
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1 See Figure 2-19
Cross Section (1)

PROPOSED ELEVATIONS – SOUTH, 16TH STREET

1979 Mission Street Project
San Francisco, California

FIGURE 2-16

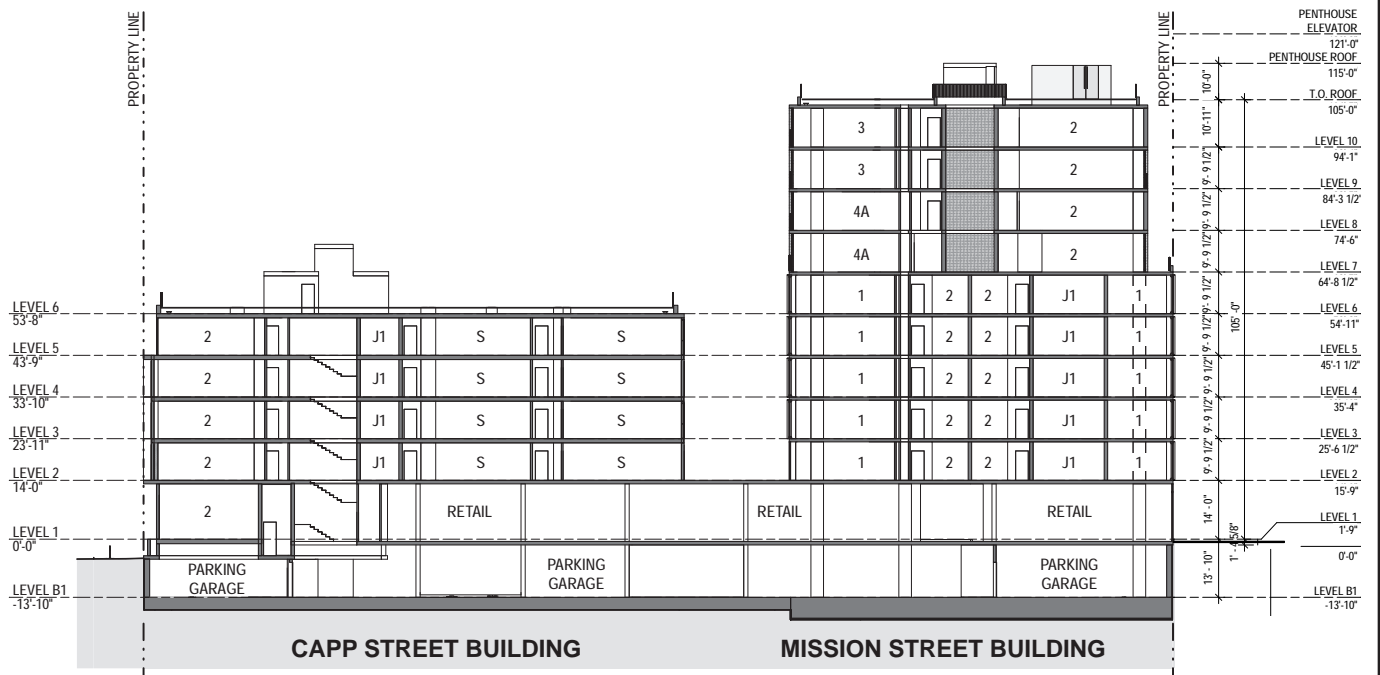


See Figure 2-19
Cross Section (1)

PROPOSED ELEVATIONS – EAST, CAPP STREET

1979 Mission Street Project
San Francisco, California

FIGURE 2-17



Cross Section (1)



Longitudinal Section (2)

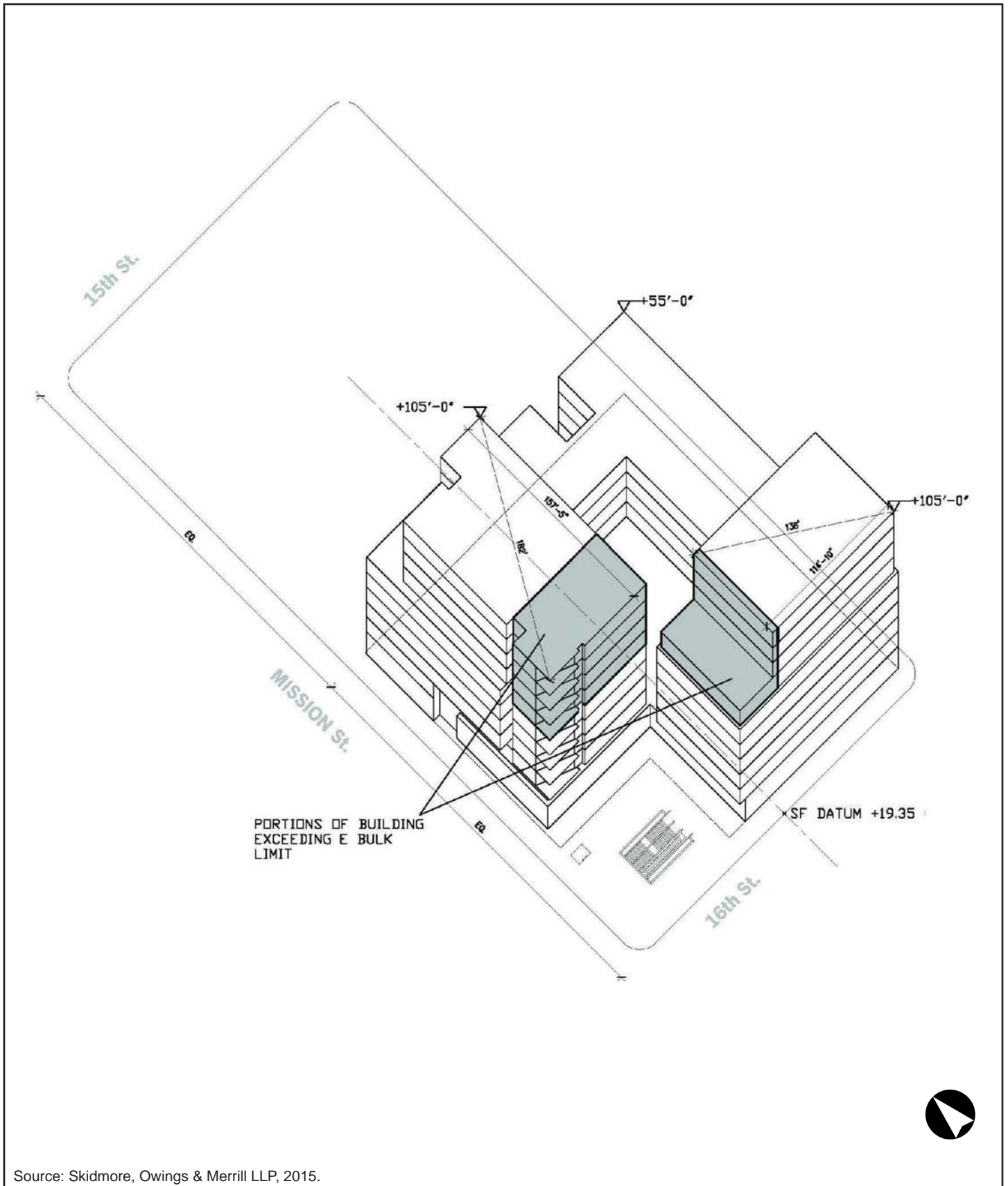
Source: Skidmore, Owings & Merrill LLP, 2015.

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PROPOSED SECTIONS

1979 Mission Street Project
San Francisco, California

FIGURE 2-19

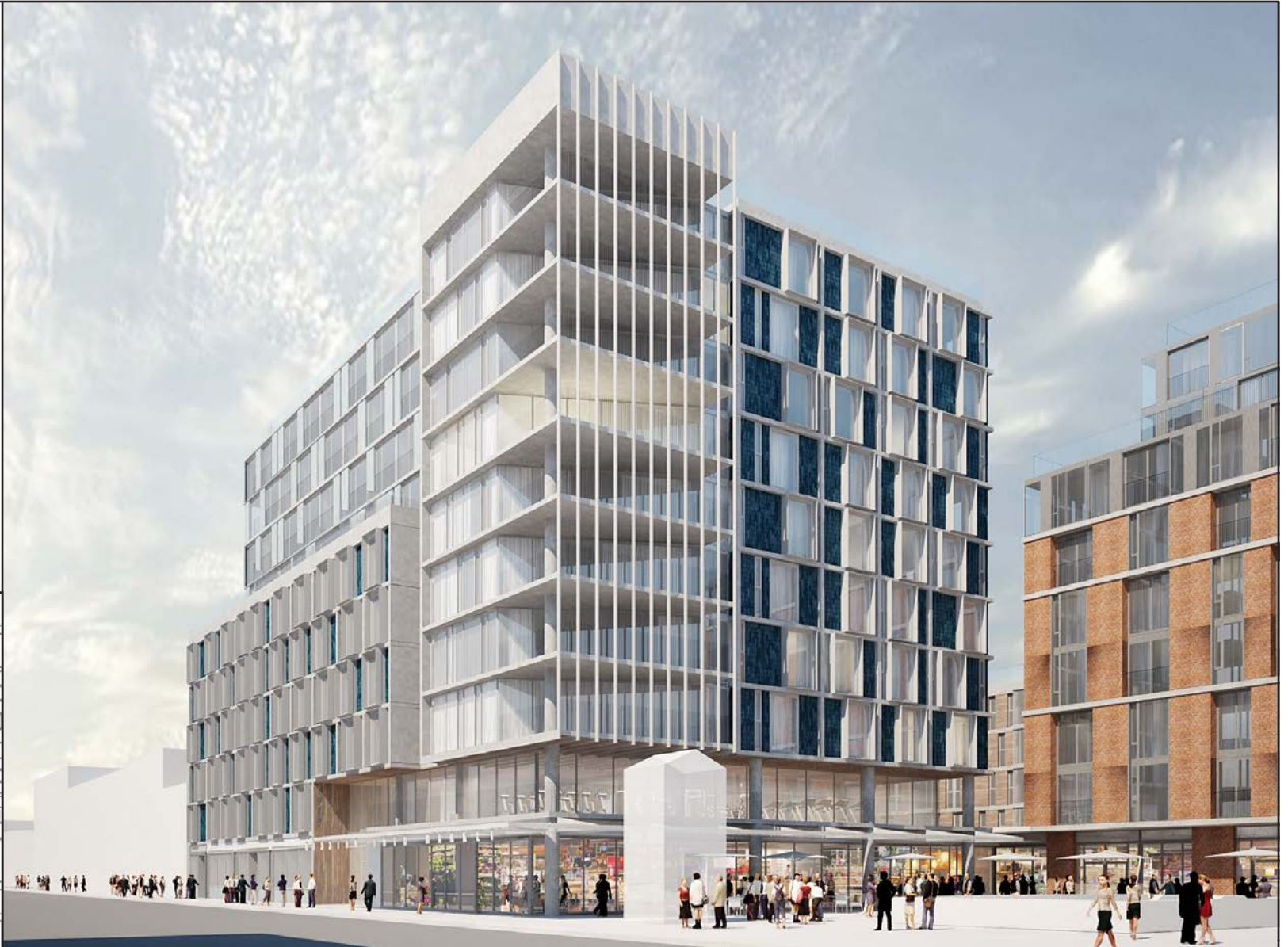
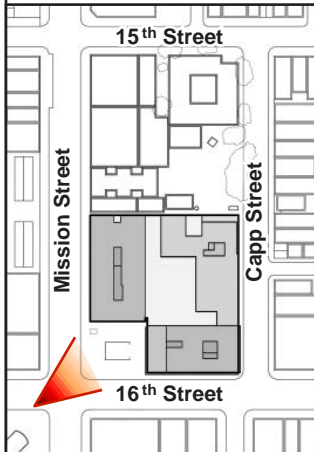


Source: Skidmore, Owings & Merrill LLP, 2015.

PROPOSED MASSING SCHEME

1979 Mission Street Project
San Francisco, California

FIGURE 2-20



Source: Skidmore, Owings & Merrill LLP, 2015.

**VISUAL SIMULATION
MISSION STREET
– VIEW LOOKING NORTHEAST**

1979 Mission Street Project
San Francisco, California

FIGURE 2-21



Source: Skidmore, Owings & Merrill LLP, 2014.

VISUAL SIMULATION
16TH STREET – VIEW LOOKING EAST

1979 Mission Street Project
San Francisco, California

FIGURE 2-22



Source: Skidmore, Owings & Merrill LLP, 2014.

VISUAL SIMULATION
CAPP STREET – VIEW LOOKING NORTH

1979 Mission Street Project
San Francisco, California

FIGURE 2-23

1. Residential

The Proposed Project would have 331 residential units, which would include 8 micro units,⁹ 114 studios, 75 one bedroom units, 122 two bedroom units, 11 three bedroom units, and 1 four bedroom unit. With the exception of three ground-floor units fronting on Capp Street, all of the residential uses would be on floors 2 through 10, in three separate residential components above the podium level. The floor plans for the residential portion of the Proposed Project are shown on Figures 2-5 through 2-12. Entrances to the three project residential components would be located on Mission Street for the Mission Street residential component, at the corner of 16th and Capp Streets for the 16th Street residential component, and at the northern end of the Capp Street residential component, as shown on Figure 2-3. The affordable housing component of the Proposed Project would include on site units, in lieu fees, and a portion of the sale proceeds from the below market rate units to bridge the affordable housing gap of low income housing. The proposed affordable housing component would provide an equivalent number of affordable units that would meet the Planning Code Section 415 requirements.

2. Commercial

The ground floor of the Proposed Project would include approximately 34,198 gsf of retail space for use by multiple tenants, as shown on Figure 2-3. Retail uses may include a pharmacy, marketplace/store, and restaurants. The retail spaces would have a minimum floor to ceiling height of 14 feet and multiple entrances off Mission Street, 16th Street, and the Northeast BART Plaza.

3. Parking Garage/Trash Storage and Mechanical Equipment

Approximately 63,687 gsf of parking and building services would be provided in the ground floor and basement level garage with ingress and egress via a single 20 foot wide curb cut on Capp Street, as shown on Figures 2-3 and 2-4. A total of 163 vehicle parking spaces would be provided, with 22 independently accessible spaces for the retail uses, 4 car share spaces, and 136 spaces for residential uses (92 of which would be stacker spaces, and 3 tandem spaces for 6 cars) in the basement level, and three freight loading spaces and one ADA accessible van space on the ground level. Approximately 162 Class I bicycle spaces would be provided. Four Class I secure bicycle spaces provided on the ground floor would be for commercial tenants, and 158 Class I secure bicycle spaces provided in the basement would be for residents, in compliance with Planning Code requirements. On street bicycle parking would include 30 Class II bicycle spaces in two bicycle corrals, one on Mission Street, and another on Capp Street, as described under Street Improvements below.

A diesel powered emergency generator would be located in the garage to serve as a backup power supply for life safety. Trash storage and mechanical/electrical equipment would also be located in the garage. The building's maintenance staff would move the trash from the trash room in the basement garage to the trash, recycle, and compost compactors at the ground level, to be retrieved by Recology.¹⁰ Recology vehicles would drive forward into the loading dock spaces to retrieve the compactor or bins, maneuver in the loading area, and exit onto Capp Street to empty the compactor or bins at an offsite location and return the emptied bins to the garage. The retail tenants would arrange for trash/recycling/

⁹ A micro unit is defined in Planning Code Section 318 as an efficiency unit with less than 220 square feet of living room space and a kitchen and bathroom and the requirements set forth in San Francisco Building Code Supplement Section 1208.4.

¹⁰ Recology is the company that manages municipal solid waste disposal and recycling services in San Francisco.

compost pick up directly with Recology, and place their bins at the curb on Mission and 16th Streets for pick up. The garage would be secured and accessible to residents; 22 of the parking spaces would be available to the retailers and their customers.

4. Circulation and Vehicular Access

All vehicular access into the Proposed Project for truck loading and off street parking would be via a new 20 foot curb cut on Capp Street, which would provide access to the proposed basement garage and the freight loading area on the ground level. Truck deliveries to the retail spaces would be accommodated by the three loading spaces in the ground floor freight loading area. Deliveries by trucks in excess of 35 feet would use on street loading space along the north side of 16th Street adjacent to the project site.

Three elevators from the parking garage operated by a key card/fob would provide access to the Mission Street, 16th Street, and Capp Street residential lobbies and residential units. A separate elevator from the parking garage would serve the ground floor and retail spaces. Residents would be able to access the residential lobbies from the ground floor loading area.

5. Pedestrian Access

As described above, there would be three street level residential lobbies, one for each residential component, accessible for pedestrian access. Residential lobbies would be located mid building for the Mission Street residential component, at the corner of 16th and Capp Streets for the 16th Street residential component, and at the northern end of the Capp Street residential component. In addition, the three ground floor residential units of the Capp Street residential component would be accessed directly from Capp Street. Access to the retail space would be from the storefronts along Mission and 16th Streets and from the Northeast BART Plaza.

6. Open Space

Along the northern and eastern sides of the Northeast BART Plaza, the Proposed Project's ground floor retail would be set back 15 feet from the property line, creating 2,175 feet of privately owned but publicly accessible open space, as shown on Figure 2-14. In accordance with Planning Code Section 736.93, usable open space for building residents would be provided through a combination of private and common usable open spaces that include balconies, roof decks, and a portion of the interior podium courtyard, as shown on Figure 2-13. The common usable open space would provide areas for the residents to have events and gatherings. Private open space would consist of 10,234 square feet of balconies, terraces, and patios for the exclusive use of 29 residential units. Approximately 28,741 square feet of common usable open space would be provided by roof decks, terraces, and a portion of the interior courtyard open space.

7. Street Improvements and On Street Parking

In addition to the open space improvements described above, the Proposed Project would include the street improvements shown on Figure 2-14, in lieu of a portion of the Eastern Neighborhoods impact fee. These improvements would include a raised crosswalk across Capp Street at Adair Street, widening of the existing sidewalk on the western side of Capp Street between 16th and 15th Streets from 9 feet to 12 feet, and the addition of bulb-outs at the northwestern corner of 16th and Capp Streets and the western side of the Adair Street and Capp Street intersection. These improvements are designed to calm traffic

and improve pedestrian safety. A bioswale¹¹ feature for stormwater infiltration may be installed along the widened sidewalk area along Capp Street immediately adjacent to the ground floor residential units. Additional improvements along Mission, 16th, and Capp Streets would include planted tree wells, special paving, and two bicycle parking corrals. The Project Sponsor would apply to the SFMTA and fund the installation of two bicycle corrals in the public right of way in the parking lane: a 16 bicycle corral on Mission Street and a 14 bicycle corral on Capp Street.

The proposed street improvements would require the removal of two curbside parking spaces on Mission Street, and three to four curbside parking spaces on Capp Street. After construction of the Proposed Project, the on street parking and commercial loading spaces along the project site would consist of four 22 foot long general metered parking spaces on Mission Street (a net loss of one general metered parking space on Mission Street), three commercial loading spaces on 16th Street, and seven unmetered parking spaces on Capp Street (a net loss of up to four unmetered parking spaces).

8. Building Design

The project design for each of the three residential components of the Proposed Project is described below.

a. Mission Street Residential Component

The Mission Street residential component would range in height from 6 to 10 stories, or approximately 65 feet to 105 feet in height, with a maximum height of 121 feet to the top of the elevator penthouse. The Mission Street residential component would be divided into three sections. The one story ground level base would be separated from the residential units above by projecting canopies along the retail frontage along Mission Street, then would wrap around the Northeast BART Plaza and extend along 16th Street. The Mission Street lobby would be two stories high, and the ground floor retail stores would have a minimum 14 foot floor to ceiling height.

The middle section of the Mission Street residential component would comprise the second or third through sixth stories, with amenities for the residents on the second floor facing the Northeast BART Plaza and the southern half of Mission Street. The façade of the middle section would incorporate various window types to distinguish the residential space from the retail space below. The façade would have floor to ceiling punched windows framed by a series of metal fins. Variegated glazed tile brick panels would be installed between the expressed concrete slabs to add depth to the façade while creating interest with shade and shadow. The introduction of vertical elements would break down the building scale further to create a smaller scale modulation and articulation across the façade. The building's architectural textures with its glass to solid wall ratio and colors are intended to complement and reflect the exterior materials found in the surrounding Mission neighborhood. The walls of the corner units facing the Northeast BART Plaza would be chamfered (instead of having a 90 degree right angle, the corner would be beveled or have an angled edge) for floors two through ten, as shown on Figure 2-21.

The top section of the Mission Street residential component would comprise the upper four stories (floors seven through ten). This section would begin at a height of 65 feet. It would be set back 6 feet from the floors below along the Mission Street property line, and approximately 17.5 to 30 feet from the northern

¹¹ Bioswales are landscape elements consisting of soils, vegetation, and/or riprap; they are designed to remove silt and pollution from surface runoff water before it enters the storm drain.

property line. An increase in the proportion of the glass to solid panels would reduce the visibility from Mission Street.

Balconies at the southwestern corner of the Mission Street residential component would face directly onto the Northeast BART Plaza. At the same corner, a trellis element woven with climbing plants would wrap down from the roof in front of the balconies, creating a marquee-like architectural feature to further mark the importance of the corner of 16th and Mission Streets, as shown on Figure 2-21.

b. 16th Street Residential Component

The 16th Street residential component would range in height from 7 to 10 stories, or approximately 75 feet to 105 feet, with a maximum of 121 feet in height at the elevator penthouse. Above the ground level, the 16th Street residential component would be separated from the Mission Street residential component by 25 feet to allow additional sunlight penetration into the podium level courtyard. In addition, floors eight through ten would be set back approximately 40 feet from the Northeast BART Plaza, creating further separation between the two residential components. The base and middle sections would have vertical brick elements. The ground floor retail, with storefront glazing and canopies, would constitute the base of the 16th Street residential component. The second through sixth floors would be the middle section, with two story high punched glazed openings. The upper four stories would have an increased ratio of glass to solid walls, and the vertical brick elements below would not continue upward. The proposed height difference and the unique façade designs of the Mission Street and 16th Street residential components facing the Northeast BART Plaza are intended to reinforce the visual separation and impression of two distinct buildings.

c. Capp Street Residential Component

The Capp Street residential component would have three to four stories of wood frame construction above the podium level, would be 55 feet high in compliance with the Planning Code, and would have a maximum height of 71 feet to the top of the elevator penthouse. The Capp Street façade would include three ground floor residential units with stoops facing directly onto Capp Street. The façade would be divided into four smaller 30 foot wide framed sections. As shown on Figure 2-23, the fifth floor would be set back 13 feet from the northern property line and stepped down to the third level relative to the scale of the existing buildings along Capp Street to allow additional sunlight access to the adjacent schoolyard.

9. Construction

Construction is anticipated to occur over 21 months in five phases: (1) demolition; (2) excavation, shoring, and underpinning; (3) foundation and podium; (4) superstructure/skin; and (5) interior work. Construction hours would typically be from 7:00 a.m. to 4:00 p.m., Monday through Friday. Limited evening work (4:00 p.m. to 8:00 p.m.) and work on weekends (8:00 a.m. to 4:00 p.m.) would be required for Phases 3, 4, and 5.

The site would be excavated up to approximately 22 feet below grade, removing approximately 34,523 cubic yards of soil. All excavated soil would be removed from the project site and disposed of at an appropriate facility, except for a small amount of soil to be placed under the vehicle ramp at the parking garage.

A pre-drilled soldier-pile-and-lagging system¹² with internal bracing would be used for stabilizing the area of excavation adjacent to Mission Street and the Northeast BART Plaza. The shoring system would be designed and installed in compliance with BART requirements, as discussed below. Where the excavation abuts the existing buildings on the northern side of the project site, 16th Street and Capp Street, tiebacks¹³ would be used.¹⁴

Approximately the first 50 horizontal feet of the project site parallel to Mission Street is in the BART zone of influence (ZOI), which is subject to BART's design and engineering requirements.^{15,16} The Proposed Project's foundation in the BART ZOI would be designed to avoid imposing any loads on the BART structure. The foundation would be a mat foundation with a maximum thickness of 5.5 feet that is supported by drilled piers that would transfer the building load to the dense native sand below. Pile driving would not be used for construction of the Proposed Project.¹⁷

Construction activities would require temporary sidewalk and parking lane closures for the entire construction period. On the eastern side of Mission Street, the bus stop adjacent to the Northeast BART Plaza would remain open, and a lighted and covered pedestrian walkway would be constructed over the adjacent sidewalk. The sidewalk north of the bus stop on Mission Street would be closed, and a pedestrian detour would be provided in the parking lane. On the northern side of 16th Street, adjacent to the project site, the bus stop would remain open, and a lighted and covered walkway would be provided on the existing sidewalk. The parking lane east of the bus stop would be closed to accommodate deliveries and staging for the Proposed Project. The sidewalk and parking lane adjacent to the project site on the western side of Capp Street would be closed, and pedestrian traffic would be redirected to the eastern side of Capp Street. A total of 15 to 16 on street parking spaces and two metered loading spaces along the project site's street frontage would be temporarily closed during construction of the Proposed Project.

G. Intended Uses of the EIR

The section below provides a summary of the purpose and process for the EIR (see additional details provided in Chapter 1, Introduction), and a list of the required approvals for the Proposed Project.

1. Purpose and Process

As described in Section 1.B of Chapter 1, Introduction, the CEQA State Guidelines, Section 15183 streamlines environmental review for projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was previously

¹² A soldier pile and lagging system is a construction technique for retaining soil during excavation using vertical piles (i.e., column elements) with horizontal lagging (i.e., panel elements).

¹³ Tiebacks are used in construction to anchor shoring to soil walls and prevent damage to adjacent properties.

¹⁴ Treadwell & Rollo, 2013. Geotechnical Investigation, 1979 Mission Street. Prepared for Maximus Real Estate Partners. January 30.

¹⁵ BART, 2012. Procedures for Permit and Plan Review. June. Available online at: bart.gov/sites/default/files/docs/Permits_and_Plan_Review_062012.pdf.

¹⁶ BART, 2003. General Guidelines for Design and Construction over or Adjacent to BART's Subway Structures. July. Available online at: bart.gov/sites/default/files/docs/Gen_Guide_Subway_062012.pdf. Accessed April 7, 2016

¹⁷ Maximus – BP 1979 Mission LLC, 2014. Environmental Evaluation Application for 1979 Mission Street Project, Attachment to Application for Block 3553, Lot 052. January 14.

certified. The Proposed Project was addressed at a program level in the Eastern Neighborhoods PEIR.¹⁸ The Citywide Planning and Current Planning Divisions of the San Francisco Planning Department (Planning Department) have determined that the Proposed Project is consistent with the requirements (i.e., development density) of the Area Plan, as evaluated in the Eastern Neighborhoods PEIR.^{19,20} Therefore, because the Proposed Project is consistent with the programmatic document prepared for the Area Plan, the environmental review can be streamlined per CEQA State Guidelines Section 15183.

The Planning Department prepared a Community Plan Exemption (CPE) Checklist for the Proposed Project to determine whether its impacts were adequately addressed in the Eastern Neighborhoods PEIR. Based on the analysis in the CPE Checklist (see Appendix A), the Proposed Project would potentially result in significant impacts on wind, shadow, and geology and soils that are peculiar to the project site, and that were not identified in the Eastern Neighborhoods PEIR. For all the other environmental topics, the Proposed Project would not result in new significant impacts, nor would it result in more severe adverse impacts to these resources than were identified in the Eastern Neighborhoods PEIR. Therefore, the Planning Department has prepared this focused EIR to address the Proposed Project's impacts to wind, shadow, and geology and soils.²¹ This is a project specific EIR, intended to inform the public and decisionmakers of the potential significant impacts that the Proposed Project could have on wind, shadow, and geology and soils that were not fully disclosed in the Eastern Neighborhoods PEIR, and to present mitigation measures and feasible alternatives to avoid or reduce these significant impacts. Subsequent to publication of the CPE Checklist, the originally proposed design was modified to eliminate a hazardous wind impact. The modified Project design is described in Section 2.F of the Project Description in this Draft EIR.

2. Required Approvals

The Proposed Project would be subject to compliance and permitting requirements under local regulations. The anticipated approvals necessary for the implementation of the Proposed Project are listed below.

a. Actions by the San Francisco Planning Commission

- Certification of the Final EIR and adoption of CEQA findings.
- The Proposed Project is seeking approval as a Planned Unit Development, which would require a conditional use authorization and exceptions from the Planning Code pursuant to Section 303 and Section 304 for the following:
 - Planned Unit Development with additional requirements and criteria to be considered;
 - Lot size limit (Planning Code Section 121.1);
 - Use size limit (Planning Code Sections 121.2 and 121.6);

¹⁸ San Francisco Planning Department, 2008. Eastern Neighborhoods Rezoning and Area Plans Programmatic Environmental Impact Report (Eastern Neighborhoods PEIR), Planning Department Case No. 2004.0160E, State Clearinghouse No. 2005032048, certified August 7, 2008. Available online at: <http://www.sf-planning.org/index.aspx?page=1893>, accessed October 2, 2014.

¹⁹ Varat, Adam, 2014. San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Citywide Planning and Policy Analysis, 1979 Mission Street, August 20.

²⁰ Joslin, Jeff, 2014. San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Current Planning Analysis, 1979 Mission Street, September 10.

²¹ Applicable CEQA regulations and guidelines are: California Public Resources Code Sections 21000 et seq., California Code of Regulations Title 14, Sections 15000 et seq. (State CEQA Guidelines); and San Francisco Administrative Code, Chapter 31.

- Required rear yard (Planning Code Section 134);
 - Residential open space (Planning Code Section 135);
 - Permitted obstructions (Planning Code Section 136[c][2]);
 - Bulk limitations (Planning Code Section 270); and
 - Dwelling unit exposure (Planning Code Section 140).
- The Proposed Project would be subject to the Mission 2016 Interim Controls that govern certain permit applications during the development of the Mission Action Plan (MAP) 2020.

b. **Actions by the San Francisco Board of Supervisors**

- Approval of a Development Agreement for the Proposed Project; and
- Approval of legislation for sidewalk widening.

c. **Actions by Other City Boards and Departments**

- *Planning Department* – Approval of the demolition and site permits, and addenda thereto. General Plan Referral for proposed condominium map and sidewalk widening.
- *Department of Building Inspection* – Approval of demolition, site permit and addendum thereto, and building permits for the demolition of the existing buildings, construction of the new building and underpinning permits of adjacent structures. Approval of construction outside the permitted hours.
- *SFMTA Board of Directors* – Approval of the proposed curb modifications, parking space removal, and bicycle corrals on Mission Street right-of-way and Capp Street sidewalk and right-of-way.
- *Bureau of Streets and Mapping, San Francisco Public Works* – Subdivision and condominium map approval and encroachment permits for sidewalk underground vaults. Street and sidewalk permits for any modifications to public streets, sidewalks, protected trees, street trees, or curb cuts.
- *San Francisco Public Utilities Commission* – Approval of any changes to sewer laterals. Approval of an erosion and sediment control plan prior to commencing construction, and compliance with post-construction stormwater design guidelines, including a stormwater control plan; required for projects that result in ground disturbance of an area greater than 5,000 square feet.
- *San Francisco Department of Public Health* – Approval of a dust control plan because the site is in excess of ½ acre in size.

d. **Actions by Other Agencies**

- *Bay Area Air Quality Management District* – Issuance of permits for installation and operation of the emergency generator.
- *BART* – Plan review and approval of shoring and foundation within BART ZOI, and issuance of permit to work within or adjacent to the BART right-of-way.

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CHAPTER 3

Plans and Policies

Pursuant to CEQA Guidelines Section 15125(d), this Chapter discusses any inconsistencies of the Proposed Project with applicable plans and policies and focuses on those that may result in physical environmental impacts. Policy consistency determinations are ultimately made by the City of San Francisco's (City's) local decision making body (i.e., the Planning Commission and the Board of Supervisors). The analysis in this chapter is intended to provide decisionmakers with a discussion of planning considerations that are pertinent to the Proposed Project and associated development site. This chapter also provides a preliminary conclusion regarding whether the Proposed Project may be inconsistent with identified plans and policies that relate to physical environmental impacts. These preliminary conclusions are intended to supplement understanding of the various and often competing public policy considerations. This consideration of policies would occur independently of the environmental review process, as part of the decision to approve, modify, or disapprove the Proposed Project.

Conflicts and inconsistencies with a policy do not constitute, by themselves, significant environmental impacts, unless such conflicts or inconsistencies result in direct physical environmental effects. With the exception of the effects on wind, shadow, and geology and soils, all physical impacts of the Proposed Project are discussed in the Community Plan Exemption (CPE) Checklist prepared for the Proposed Project (see Appendix A). Physical impacts associated with wind, shadow, and geology and soils are discussed in this Focused Environmental Impact Report (EIR) in Chapter 4, Environmental Setting, Impacts, and Mitigation Measures.

Plans and policies addressed in this chapter include:

- **San Francisco Plans and Policies.** This section describes the San Francisco General Plan (General Plan) and the Eastern Neighborhoods Rezoning and Area Plans, focusing particularly on the Mission Area Plan. This section also discusses the applicable provisions of the San Francisco Planning Code (Planning Code), including the Accountable Planning Initiative, Transit First Policy, San Francisco Bicycle Plan, San Francisco Better Streets Plan (Better Streets Plan), Sustainability Plan, Climate Action Plan for San Francisco, and Local Actions to Reduce Greenhouse Emissions (Climate Action Plan).
- **Regional Plans and Policies.** The Bay Area Air Quality Management District's (BAAQMD's) 2010 Clean Air Plan, San Francisco Regional Water Quality Control Board's (RWQCB's) San Francisco Bay Basin Plan, Metropolitan Transportation Commission's (MTC's) and Association of Bay Area Governments' (ABAG's) Plan Bay Area Sustainable Communities Strategy (Plan Bay Area) are all described in this section.

The Proposed Project is consistent with the development density established by the Mission Area Plan for the project site and the building height limits established by the Zoning Map. The Proposed Project

would not obviously conflict with local and regional plans, policies, and Planning Code land use controls. As described in Chapter 2, Section G.2.(a) above, the Proposed Project would require conditional use authorization under certain sections of the Planning Code pursuant to Section 304 of the Planning Code. With the necessary approvals, the Proposed Project would be generally consistent with Planning Code provisions. As stated above, potential inconsistencies of the Proposed Project with applicable plans, policies, and regulations do not, by themselves, indicate a significant environmental effect. To the extent that physical environmental impacts associated with wind, shadow, and geology and soils may result from such conflicts, these impacts are analyzed in this EIR in Chapter 4, Environmental Setting, Impacts, and Mitigation Measures. Any inconsistencies between the Proposed Project and plans, policies, and Planning Code land use controls that do not relate to physical environmental issues or result in physical environmental effects will be considered by City decisionmakers as part of their determination on whether to approve, modify, or disapprove the Proposed Project.

A. San Francisco Plans and Policies

1. San Francisco General Plan

The General Plan provides the City's vision for the future of San Francisco. The General Plan is divided into ten elements that apply Citywide: Air Quality, Arts, Commerce and Industry, Community Facilities, Community Safety, Environmental Protection, Housing; Recreation and Open Space, Transportation, and Urban Design. Development in the City is subject to the General Plan, which provides objectives and policies to guide land use decisions, and contains some policies that relate to physical environmental issues, some of which may conflict with each other. Achieving complete consistency with the General Plan is not always possible for a proposed project. CEQA does not require an analysis of a proposed project in relation to all General Plan policies; it asks whether a proposed project would conflict with any plans or policies adopted to protect the environment.

Two General Plan elements that are particularly applicable to planning considerations associated with the Proposed Project are the Urban Design and Housing elements. The Urban Design Element is concerned "both with development and with preservation. It is a concerted effort to recognize the positive attributes of the city, to enhance and conserve those attributes, and to improve the living environment where it is less than satisfactory." The Urban Design Element also seeks to protect public views of open space and water bodies, and to protect and enhance the aesthetic character of San Francisco. Objective 3 of the Urban Design Element seeks to ensure that major new development complements existing land use patterns, protects important natural resources, and preserves neighborhood character. The Proposed Project is consistent with the type and intensity of development envisioned for the project site (refer to Eastern Neighborhoods Plan and Planning Code discussions, below), and would not obviously conflict with any goals, objectives, or policies in the Urban Design Element.

The key objective of the Housing Element is to promote the development of new housing (both market rate and affordable housing) in areas in San Francisco close to the City's job centers and well served by transit, while retaining existing housing in a way that strengthens the economy, reduces environmental impacts, and creates a stronger sense of place and community. A particular focus of the Housing Element is on the creation and retention of affordable housing, which reflects intense demand for such housing, a growing economy (which itself puts increasing pressure on the existing housing stock), and a constrained supply of land (necessitating infill development and increased density). The Proposed Project, which is adjacent to a local and regional public transit hub and is a mixed-use project containing housing, would

not remove existing housing and would not obviously conflict with any objectives or policies in the Housing Element. The Proposed Project would include an affordable housing component with an equivalent number of affordable units that would meet the Planning Code Section 415 requirements.

Any potential conflicts with General Plan objectives and policies not identified in the EIR would be considered in the Project evaluation process, and would not alter the physical environmental effects of the Proposed Project. The Planning Department, the Zoning Administrator, the Planning Commission, the Board of Supervisors, and other City decisionmakers will evaluate the Proposed Project's conformance with the objectives and policies of the General Plan, and will consider potential conflicts as part of the decision making process.

2. Eastern Neighborhoods Rezoning and Area Plans

After several years of community input and technical analysis, the Eastern Neighborhoods Rezoning and Area Plans were adopted in December 2008. The goal of the Eastern Neighborhoods Rezoning and Area Plans is to transition about half of the existing industrial areas in the Mission, Central Waterfront, East South of Market, and Showplace Square/Potrero Hill neighborhoods to mixed use zones that encourage new housing. The remaining half would be rezoned for production, distribution, and repair (PDR) districts, where a wide variety of uses such as San Francisco Municipal Railway (Muni) vehicle yards, light industrial uses, caterers, performance spaces, and industrial and manufacturing uses can continue to thrive.

The Eastern Neighborhoods rezoning and Planning Code amendments included new zoning districts that would permit PDR uses in combination with commercial uses; mixed use districts for residential and commercial uses, residential, and PDR uses; and residential districts. In addition to the Planning Code map and text amendments, the Eastern Neighborhoods Rezoning and Area Plans created four new area plans: the Mission Area Plan, the East South of Market Area Plan, the Showplace Square/Potrero Hill Area Plan, and the Central Waterfront Area Plan. Each Area Plan articulates a vision for a neighborhood that would promote transit, bicycle, and pedestrian friendly areas, strengthen and encourage vibrant neighborhood serving commercial areas, provide and maintain community facilities and open space to ensure neighborhood livability, and increase both the supply and variety of housing, with an emphasis on affordable housing.

3. Mission Area Plan

The project site is in the Mission Area Plan, a subarea of the Eastern Neighborhoods Rezoning and Area Plans. The Mission Area Plan covers the area bounded by Guerrero Street to the west, Potrero Avenue to the east, Division Street to the north, and Cesar Chavez Street to the south. The Mission Area Plan envisions a pattern of development that would preserve the diversity and vitality of the Mission, increase the amount of affordable housing, preserve and enhance the existing PDR businesses, preserve and enhance the unique character of the Mission's distinct commercial areas, promote alternative means of transportation to reduce traffic and automobile use, improve and develop additional community facilities and open space, and minimize displacement.

Objectives of the Mission Area Plan that relate to the Proposed Project include:

- Strengthening the Mission's existing mixed use character, while maintaining the neighborhood as a place to live and work (Objective 1.1);

- Maximizing development potential in areas of the Mission where housing and mixed use is encouraged, in keeping with neighborhood character (Objective 1.2);
- Ensuring that a significant percentage of new housing created in the Mission is affordable to people with a wide range of incomes (Objective 2.1);
- Ensuring that new residential development satisfies an array of housing needs with respect to tenure, unit mix, and community services (Objective 2.3);
- Promoting an urban form that reinforces the Mission's distinctive place in the City's larger form, and strengthens its physical fabric and character (Objective 3.1);
- Promoting an urban form and architectural character that supports walking and sustains a diverse, active, and safe public realm (Objective 3.2); and
- Ensuring that new development includes high quality, private open space (Objective 5.2).

The Proposed Project would not obviously conflict with any objectives or policies of the Mission Area Plan.

4. San Francisco Planning Code

The Planning Code, which incorporates by reference the City's Zoning Maps, implements the General Plan and governs permitted uses, densities, set-backs, open space, and other controls governing the exterior envelope of buildings in the City. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless (1) the Proposed Project conforms to the Planning Code, (2) allowable exceptions are granted pursuant to provisions of the Planning Code, or (3) necessary amendments to the Planning Code have been or will be approved by the Board of Supervisors or voters.

Use Districts. The project site is within the Mission Area Plan boundaries, and is zoned Mission Street Neighborhood Commercial Transit Zoning District (Mission Street NCT). The Mission Street NCT promotes continuous retail frontage by requiring ground floor commercial uses in new developments and prohibiting curb cuts on Mission Street. The NCT also promotes housing development in new buildings above the ground story.

The project site is also in three special use districts: the Mission Street Formula Retail Restaurant Subdistrict, which restricts approving permits for formula (chain) retail restaurants; the Mission Alcoholic Beverage Special Use District, which controls the transfer of liquor licenses under specific circumstances and restricts the sale of alcohol for offsite consumption; and the Fringe Financial Service Restricted Use District, which does not permit new fringe financial services (check cashing or pay day lenders) within the district itself or within a quarter mile buffer zone. The Proposed Project would not conflict with any regulations of the three special use districts.

Height and Bulk Districts. The portions of the site along Mission and 16th Streets are in a 105-E height and bulk district, and the portion of the site along Capp Street is in a 55-X height and bulk district.

The Proposed Project is consistent with the maximum building heights permitted in these districts. The Proposed Project would require conditional use authorization for an exception to the E bulk limitations, because the length and diagonal dimension of the Mission and 16th Streets residential components would not comply with the limits set for in Planning Code Section 270.

Other Planning Code Requirements. The Proposed Project would require conditional use authorization for the following exceptions: lot size limit (Planning Code Section 121.1) (for development on lots larger than 10,000 square feet in size); use size limit (Planning Code Sections 121.2 and 121.6) (for retail uses larger than 6,000 square feet in size); rear yard size and location (Planning Code Section 134); bay window width and separation (Planning Code Section 136[c][2]); and dwelling unit exposure to open space (Planning Code Section 140). These exceptions are required because (1) the existing lot exceeds the lot size limit of 10,000 square feet, (2) the existing pharmacy use, which the neighborhood would like to retain, exceeds the maximum 6,000 square foot use size limit, (3) deviation from the unit exposure requirement is a common request for a small number of units which face the inner court, to maximize the number of dwelling unit, and (4) deviation from the bay window width and separation requirement would create a finer façade section for the Capp Street residential component that would be compatible with the scale of the residential buildings on the eastern side of Capp Street.

Accountable Planning Initiative. In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the Planning Code, establishing eight Priority Policies. These policies are set forth in Section 101.1(b) and provide as follows: (1) that existing neighborhood serving retail uses be preserved and enhanced and future opportunities for resident employment in, and ownership of, such businesses be enhanced; (2) that existing housing and neighborhood character be conserved and protected to preserve the cultural and economic diversity of our neighborhoods; (3) that the City's supply of affordable housing be preserved and enhanced; (4) that commuter traffic not impede Muni transit service or overburden our streets or neighborhood parking; (5) that a diverse economic base be maintained by protecting the City's industrial and service sectors from displacement due to commercial office development, and that future opportunities for resident employment and ownership in these sectors be enhanced; (6) that the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake; (7) that landmarks and historic buildings be preserved; and (8) that our parks and open space and their access to sunlight and vistas be protected from development.

Policies 1, 2, and 5 are addressed in the CPE Checklist in Topic 1, Land Use and Land Use Planning. Policy 3 is addressed in the CPE Checklist in Topic 2, Population and Housing. Policy 4 is addressed in the CPE Checklist in Topic 4, Transportation and Circulation. Policy 6 is addressed in this EIR in Section 4.C., Geology and Soils. Policy 7 is addressed in the CPE Checklist in Topic 3, Cultural and Paleontological Resources. Policy 8 is addressed in this EIR in Section 4.B., Wind and Shadow.

The Proposed Project would not conflict with any of the eight Priority Policies. The Planning Commission and the Board of Supervisors (on appeal) will review the Proposed Project for consistency with the Priority Policies during the public hearing on the Proposed Project prior to acting on the Conditional Use and Planned Unit Development Applications. The case report and approval motions for the Proposed Project that are presented to the Planning Commission will contain the Planning Department's comprehensive project analysis and findings regarding the Proposed Project's consistency with the Priority Policies, plans, policies, and Planning Code provisions that do not relate to physical environmental issues. The Planning Commission and the Board of Supervisors will also consider the information in this EIR when they determine whether to approve, modify, or disapprove the Proposed Project.

5. San Francisco Transit First Policy

The City's Transit First Policy was adopted by the Board of Supervisors in 1973, amended in 1999, and is contained in Section 8A.115 of the City Charter. The Transit First Policy is a set of principles that

emphasize the City's commitment that the use of public rights of way by pedestrians, bicyclists, and public transit be given priority over the private automobile. These principles are embodied in the policies and objectives of the Transportation Element of the General Plan. All City boards, commissions, and departments are required by law to implement the City's Transit First Policy principles in conducting the City's affairs.

The Proposed Project would provide 163 vehicle parking spaces, inclusive of four car share spaces and one Americans with Disabilities Act-accessible van parking space. The number of off street parking spaces is less than the estimated demand of 603 parking spaces based on the transportation impact study prepared for the Proposed Project, and is less than the maximum number of parking spaces allowed by the Planning Code.¹ Many of the trips associated with the Proposed Project are anticipated to be made via public transportation because of the project site's close proximity to numerous Muni routes and the 16th Street Mission BART station. In addition, the Proposed Project would provide approximately 162 Class I secure bicycle spaces and 30 Class II bicycle spaces along Mission and Capp Streets. Therefore, the Proposed Project would not obviously conflict with the Transit First Policy.

6. San Francisco Bicycle Plan

In August 2009, the San Francisco Board of Supervisors approved the San Francisco Bicycle Plan (Bicycle Plan), which is intended to provide a safe and attractive environment needed to promote bicycling as a transportation mode. In addition to identifying the existing bicycle route network and proposing short term and long term improvements to this network, the Bicycle Plan identifies goals, objectives, and policies to support these proposed improvements. The Proposed Project, which would provide the required number of Class I and Class II bicycle parking spaces and would not affect the bicycle routes or the travel lanes of the streets in the vicinity of the project site and would not conflict with the Bicycle Plan.

7. San Francisco Better Streets Plan

In December 2010, the Better Streets Plan was adopted in support of the City's efforts to enhance the streetscape and the pedestrian environment. The Better Streets Plan carries out the intent of San Francisco's Better Streets Policy, which was adopted by the Board of Supervisors on February 6, 2006. The Better Streets Plan classifies the City's public streets and right of way, and creates a unified set of standards, guidelines, and implementation strategies that guide how the City designs, builds, and maintains its public streets and right of way.

The Better Streets Plan consists of policies and guidelines for the City's pedestrian realm. Major concepts related to streetscape and pedestrian improvements include: (1) pedestrian safety and accessibility features, such as enhanced pedestrian crossings, corner or midblock curb extensions, pedestrian countdown and priority signals, and other traffic calming features; (2) universal pedestrian oriented design, with incorporation of street trees, sidewalk plantings, furnishing, lighting, efficient utility location for unobstructed sidewalks, shared single surface for small streets/alleys, and sidewalk/median pocket parks; (3) integrated pedestrian/transit functions using bus bulb-outs and boarding islands (bus stops in medians within the street); (4) opportunities for new outdoor seating areas; and (5) improved ecological

¹ CHS Consulting Group, 2014. 1979 Mission Street Mixed-Use Residential Project Transportation Impact Study. December 15.

performance with incorporation of stormwater management techniques and urban forest maintenance. The requirements of the Better Streets Plan were incorporated into the Planning Code as Section 138.1.

The Proposed Project would be consistent with the Better Streets Plan by complying with Planning Code Section 138.1 through the implementation of the following measures: constructing streetscape improvements such as a raised crosswalk across Capp Street at Adair Street, widening of the existing sidewalk on the western side of Capp Street between 16th and 15th Streets from 9 feet to 12 feet, and the addition of bulb-outs at the northwestern corner of 16th Street/Capp Street and the western side of the Adair Street/Capp Street intersection. Planted tree wells, special paving, landscaping, bioswales, and bicycle parking corrals would also be installed along Mission, 16th, and Capp Streets.

8. Sustainability Plan

In 1993, the San Francisco Board of Supervisors established the Commission on San Francisco's Environment, which is charged with, among other duties, drafting and implementing a plan for San Francisco's long term environmental sustainability. The goal of the San Francisco Sustainability Plan is to enable the City and its people to meet their current needs without sacrificing the ability of future generations to meet their own needs.

The San Francisco Sustainability Plan is divided into 15 topic areas: 10 that address specific environmental issues (air quality; biodiversity; energy, climate change, and ozone depletion; food and agriculture; hazardous materials; human health; parks, open spaces, and streetscapes; solid waste; transportation; and water and wastewater), and five that are broader in scope and cover many issues (economy and economic development, environmental justice, municipal expenditures, public information and education, and risk management).

Although the San Francisco Sustainability Plan became official City policy in July 1997, the Board of Supervisors has not committed the City to perform all of the actions addressed in the plan. The San Francisco Sustainability Plan serves as a blueprint, with many of its individual proposals requiring further development and public comment.

The San Francisco Building Code was amended in 2008 to add Chapter 13C, Green Building Requirements, which partially implements the energy provisions of the Sustainability Plan. The San Francisco Green Building Requirements establish either Leadership in Energy and Environmental Design (LEED)² certification levels or Green Point Rated³ system points for types of residential and commercial buildings. The new requirements mandate that newly constructed private residential and commercial buildings include energy and water efficient features during construction and operation. The California

² LEED is an internationally recognized green building certification system developed by the U.S. Green Building Council, which provides third party verification that a building or community was designed and built using strategies aimed at improving performance across metrics that include energy savings, water efficiency, reduction of carbon dioxide emissions, improved indoor environmental quality, stewardship of resources, and sensitivity to impacts on resources.

³ Green Point Rated is a program of Build it Green, established for evaluating residential building performance in the areas of resource conservation, indoor air quality, water conservation, energy efficiency, and livable communities (infill development, density, diversity). From "Green Point Rated." Available online at: <http://www.builditgreen.org/greenpoint-rated/>. Accessed on February 2, 2010.

Building Standards Commission adopted a green building code as part of the California Building Code (Title 24 of the California Code of Regulations, paragraph 6). The provisions of the state code became effective on January 1, 2011. Local jurisdictions are allowed to adopt or continue to use their own green building ordinances as long as they are as stringent as, or more stringent than, those adopted by the state.

The Proposed Project would comply with applicable Green Building requirements, including those for construction and recycling; construction materials, including low emitting materials; energy consumption; parking; and water and stormwater. Specifically, the Proposed Project would comply with measures such as diverting a minimum of 75 percent of construction and demolition debris from landfill; using low emitting adhesives, sealants, caulks, paints, coatings, composite wood, and flooring in the building; generating onsite renewable energy or purchasing renewable energy credits; demonstrating a 15 percent energy efficiency compliance margin; designating approximately twelve parking spaces for either low emitting, fuel efficient, or carpool/vanpool vehicles; and reducing potable water demand by 30 percent by using low flow faucets, water closets, showerheads, and urinals.

The Proposed Project would increase residential density in a neighborhood that is well served by transit, and incorporate the abovementioned energy efficiency, water conservation, and waste management measures. Therefore, the Proposed Project would not obviously conflict with the San Francisco Sustainability Plan.

9. Climate Action Plan

In February 2002, the San Francisco Board of Supervisors passed the Greenhouse Gas Emissions Reduction Resolution, committing the City and County of San Francisco to a greenhouse gas (GHG) emissions reduction goal of 20 percent below 1990 levels by 2012. The resolution also directed the San Francisco Department of the Environment, the San Francisco Public Utilities Commission, and other appropriate City agencies to complete a local action plan targeting GHG emissions reduction activities. In September 2004, the San Francisco Department of the Environment and the San Francisco Public Utilities Commission published the Climate Action Plan.

The Climate Action Plan examines the causes of global climate change and human activities that contribute to global warming. It provides projections of climate change impacts on California and San Francisco based on recent scientific reports and presents estimates of San Francisco's baseline GHG emissions inventory and reduction targets. It describes recommended emissions reduction actions in key target sectors—transportation, energy efficiency, renewable energy, and solid waste management—to meet stated goals by 2012. The Climate Action Plan also presents steps required over the near term to implement the plan. Although the Board of Supervisors has not formally committed the City to perform the actions addressed in the Climate Action Plan and many of the actions require further development and commitment of resources, the Climate Action Plan serves as a blueprint for reduction of GHG emissions. Recommended actions of the Climate Action Plan under transportation include the increased use of public transit as an alternative to driving and increased urban infills close to transit service. The Climate Action Plan also promotes the increased use of driving alternatives such as bicycling and walking. The Proposed Project would be adjacent to a major transit hub for Muni and BART. It would also provide 192 bicycle parking spaces. Therefore, the Proposed Project would not obviously conflict with the Climate Action Plan.

B. Regional Plans and Policies

The guiding policy plans for the nine county Bay Area include: the Bay Area 2010 Clean Air Plan produced by the BAAQMD, the Water Quality Control Plan for the San Francisco Bay Basin produced by the RWQCB, and Plan Bay Area, and the integrated long range transportation and land use/housing plan produced jointly by MTC and ABAG.

The BAAQMD's Bay Area 2010 Clean Air Plan requires implementation of "all feasible measures" to reduce ozone and to provide a control strategy to reduce ozone, particulate matter, toxic air contaminants, and GHGs in a single integrated plan. It also requires the review of progress in improving air quality in recent years, and identification of emission control measures to be adopted or implemented during the 2010-2012 timeframe. The Proposed Project would generally be consistent with the Bay Area 2010 Clean Air Plan. Physical impacts of the Proposed Project related to air quality and compliance with these plans are addressed in the CPE Checklist under Topic 6, Air Quality, (see Appendix A).

Water quality control plans (basin plans) provide the basis for protecting water quality in California. Basin plans are mandated by both the Federal Clean Water Act and the State Porter-Cologne Water Quality Act. The goal of the San Francisco Bay Basin Plan is to provide a definitive program of actions designed to preserve and enhance water quality and to protect beneficial uses of water in San Francisco Bay. The stormwater discharge, wastewater management, drainage plan, and water quality control systems for the Proposed Project would comply with, and generally be consistent with, the water quality regulations of the San Francisco Bay Basin Plan. The physical impacts of implementing these systems, and the permitting requirements of the RWQCB, are discussed in the CPE Checklist, Topic 14, Hydrology and Water Quality.

MTC and ABAG's Plan Bay Area is a long range integrated transportation and land use/housing strategy through 2040 for the San Francisco Bay Area, which functions as the Sustainable Communities Strategy mandated by Senate Bill 375. The Proposed Project would generally be consistent with the MTC and ABAG's Plan Bay Area. The physical impacts of the Proposed Project relating to population and housing are discussed in the CPE Checklist, Topic 2, Population and Housing. Impacts of the Proposed Project relating to transportation are discussed in the CPE Checklist, Topic 4, Transportation and Circulation (see Appendix A).

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CHAPTER 4

Environmental Setting, Impacts, and Mitigation Measures

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A. Introduction

This chapter provides a project level impact analysis of the physical environmental effects of implementing the Proposed Project. The Community Plan Exemption Checklist (see Appendix A) determined that the only Project specific significant impacts that were not identified in the Programmatic Environmental Impact Report for the Eastern Neighborhoods Rezoning and Area Plans (Eastern Neighborhoods PEIR)¹ would relate to the topics of wind, shadow, and geology and soils. Impacts on other environmental resources were found to have been adequately covered under the Eastern Neighborhoods PEIR, and would have no Project specific impacts that were not already identified therein.

1. Format of the Environmental Analysis

Each environmental impact topic considered in this chapter contains the following subsections:

- **Introduction.** This subsection briefly introduces the environmental impact topic and identifies the background information used for the analysis.
- **Setting.** This subsection presents a description of the baseline physical environmental conditions in the vicinity of the project with respect to each resource topic, at an appropriate level of detail to allow the reader to understand the impact analysis.
- **Regulatory Framework.** This subsection describes the relevant laws and regulations that apply to each environmental impact topic in the Proposed Project area, and the governmental agencies responsible for enforcing those laws and regulations.
- **Impacts and Mitigation Measures.** This subsection evaluates the potential for the Proposed Project to adversely affect the physical environment described in the setting. Significance criteria for evaluating environmental impacts are defined at the beginning of each impact analysis section. Each impact analysis concludes by determining the significance of the respective impacts, as described further in Section 4.2, below. This subsection also identifies mitigation measures for all of the impacts considered significant or potentially significant, consistent with CEQA Guidelines (Section 15126.4[a][1]), which states that an EIR “shall describe feasible measures which could minimize significant adverse impacts...”

Impacts are numbered and shown in bold type, and the corresponding mitigation measures, where identified, are numbered and indented, and follow impact statements. Impacts and mitigation measures are numbered consecutively within each topic, and begin with an abbreviated reference to the impact section (e.g., TR). The following abbreviations are used for individual topics:

- WS: Wind and Shadow
- GE: Geology and Soil.

2. Significance Determinations

Under CEQA, a significant effect is defined as a substantial, or potentially substantial, adverse change in the physical environment. The guidelines implementing CEQA direct that this determination be based on scientific and factual data, including the entire record for the project, and not on argument, speculation, or unsubstantiated evidence. The significance criteria used in this EIR are based on the

¹ San Francisco Planning Department, 2008. Eastern Neighborhoods Rezoning and Area Plans Programmatic Environmental Impact Report, Planning Department Case No. 2004.0160E, certified August 7, 2008.

Planning Department's Environmental Planning Division guidance regarding the thresholds of significance used to assess the severity of the environmental impacts of the Proposed Project. The specific significance criteria used to analyze wind, shadow, and geology and soils are presented before the discussion of impacts. The categories used to designate impact significance are:

- No Impact (NI). An impact is considered not applicable (no impact) if there is no potential for impacts, or if the environmental resource does not occur in the project area or the area of potential effect.
- Less than Significant Impact, No Mitigation Required (LS). This determination applies if there is a potential for a limited impact that does not exceed the defined significance criteria, or that 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 Impact with Mitigation (LSM). This determination applies if the project would result in an adverse effect that meets the significance criteria, but feasible mitigation is available that would reduce the impact to a less than significant level.
- Significant Impact (S). This determination applies if the project would result in a substantial, or potentially substantial, adverse change that meets the significance criteria, before mitigation.
- Significant and Unavoidable Impact for which Feasible Mitigation is Not Available (SU). This determination applies if the project would result in an adverse effect that meets the significance criteria, but for which there appears to be no feasible mitigation available to reduce the impact to a less than significant level. Therefore, the impact would be significant and unavoidable.
- Significant and Unavoidable Impact with Implementation of Feasible Mitigation (SUM). This determination applies if it is certain that the project would result in an adverse effect that meets the significance criteria, but the residual effect after implementation of the available mitigation measure to lessen the impact would remain significant. Therefore, the impact is significant and unavoidable with mitigation.

3. Approach to Analysis

The following sections describe the approaches to the Project level and cumulative impacts analyses.

a. Project Level Analysis

This focused EIR addresses the Proposed Project's impacts to wind, shadow, and geology and soils. These are the topic areas with site specific impacts, as identified in the Community Plan Exemption (CPE) Checklist. As described in Chapter 2, Project Description, the Proposed Project would result in the demolition of the two existing commercial buildings and surface parking lot on the site, and in the construction of an approximately 388,912 gross square foot (gsf) mixed use residential building ranging from 4 to 10 stories, with a maximum height of 105 feet, and up to 121 feet total height at the elevator penthouse. The Proposed Project would have approximately 331 residential units, approximately 34,198 gsf of ground floor commercial uses, off street ground level loading and basement parking, privately owned publicly accessible open space along the Northeast BART Plaza, and common and private usable open space, including balconies, roof terraces, and a portion of the interior podium courtyard.

At a programmatic level, the Eastern Neighborhoods PEIR identified potential environmental impacts associated with the implementation of the Mission Area Plan, which encompasses the project site. Therefore, impacts and mitigation measures identified in the Eastern Neighborhoods PEIR are applicable to development projects within the Mission Area Plan boundaries. The "Approach to Analysis" of each

respective impact topic under the Impacts and Mitigation Measures subsection identifies the mitigation measures in the Eastern Neighborhoods PEIR that would apply to the Proposed Project for that topic, and if needed, identifies additional project specific mitigation measures to address the Proposed Project's impacts.

b. Approach to Cumulative Analysis

CEQA defines cumulative impacts as "two or more individual effects, which, when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the CEQA Guidelines requires that an EIR evaluate potential environmental impacts that may be individually limited but cumulatively significant. These impacts could result from the Proposed Project alone, or together with other projects. The CEQA Guidelines state: "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects." Cumulative impacts could result from individually minor but collectively significant projects taking place over time.

For the evaluation of cumulative impacts, CEQA allows the use of either a list of past, present, or reasonably anticipated relevant projects, including projects outside the control of the lead agency; a summary of the projections in an adopted planning document; or a combined list-based and growth projections approach. For the Proposed Project, the cumulative analysis primarily relies on the cumulative growth projection assumptions found in the Eastern Neighborhoods PEIR, as described below.

Since the certification of the Eastern Neighborhoods PEIR in 2008, as evidenced by the volume of development applications submitted to the Planning Department since 2012, the pace of development activity has increased in the Eastern Neighborhoods Plan areas (Plan areas). The Eastern Neighborhoods PEIR projected that implementation of the Eastern Neighborhoods Rezoning and Area Plans could result in a substantial amount of growth in the Plan areas, resulting in an increase of approximately 7,400 to 9,900 net dwelling units, and 3,200,000 to 6,600,000 square feet of non-residential space (excluding production, distribution, and repair [PDR] loss) throughout the lifetime of the Eastern Neighborhoods Rezoning and Area Plans (year 2025).² The growth projected in the Eastern Neighborhoods PEIR was based on a soft site analysis (i.e., assumptions regarding the potential for a site to be developed through the year 2025), and not on the created capacity of the rezoning options (i.e., the total potential for development that would be created indefinitely).³

As of February 23, 2016, projects containing 9,749 dwelling units and 2,807,952 square feet of non-residential space (excluding PDR loss) have completed or are proposed to complete environmental review⁴ in the Plan

² Tables 12 through 16 of the Eastern Neighborhoods Draft EIR and Table C&R-2 in the Comments and Responses show projected net growth based on proposed rezoning scenarios. A baseline for existing conditions in the year 2000 was included to provide context for the scenario figures for parcels affected by the rezoning, not projected growth totals from a baseline of the year 2000. Estimates of projected growth were based on parcels that were to be rezoned, and did not include parcels that were recently developed (i.e., parcels with projects completed between 2000 and March 2006) or have proposed projects in the pipeline (i.e., projects under construction, projects approved or entitled by the Planning Department, or projects under review by the Planning Department or Department of Building Inspection). Development pipeline figures for each Plan Area were presented separately in Tables 5, 7, 9, and 11 in the Draft EIR. Environmental impact assessments for these pipeline projects were considered separately from the Eastern Neighborhoods rezoning effort.

³ San Francisco Planning Department, 2003. Community Planning in the Eastern Neighborhoods, Rezoning Options Workbook, Draft, February 2003. This document is available online at: <http://www.sf-planning.org/index.aspx?page=1678>.

⁴ For this and the Land Use and Land Use Planning section, environmental review is defined as projects that have or are relying on the growth projections and analysis in the Eastern Neighborhoods PEIR for environmental review (i.e., Community Plan Exemptions or Focused Mitigated Negative Declarations and Focused Environmental Impact Reports with an attached Community Plan Exemption Checklist).

areas.⁵ This level of development corresponds to an overall population increase of approximately 23,974 to 33,026 persons. Of the 9,749 dwelling units that are under or have completed environmental review, building permits have been issued⁶ for 4,583 dwelling units, or approximately 47 percent of those units (information is not available regarding building permit non-residential square footage).

In the Mission plan area, the Eastern Neighborhoods PEIR projected that implementation of the Eastern Neighborhoods Plan could result in an increase of 800 to 2,100 net dwelling units and 700,000 to 3,500,000 square feet of non-residential space (excluding PDR loss) through the year 2025. This level of development corresponds to an overall population increase of approximately 4,719 to 12,207 persons. As of February 23, 2016, projects containing 2,451 dwelling units and 355,842 square feet of non-residential space (excluding PDR loss) have completed or are proposed to complete environmental review in the Mission plan area. This level of development corresponds to an overall population increase of 8,764 to 10,650 persons. Of the 2,451 dwelling units that have completed or are proposed to complete environmental review, building permits have been issued for 989 dwelling units, or approximately 40 percent of those units. Therefore, anticipated growth from the Eastern Neighborhoods Rezoning and Area Plans is within the Eastern Neighborhoods PEIR growth projections.

Growth that has occurred in the Plan areas since adoption of the Eastern Neighborhoods PEIR has been planned for, and the effects of that growth were anticipated and considered in the Eastern Neighborhoods PEIR. Although the number of housing units under review is approaching or exceeds the residential unit projections for the Mission and Showplace Square/Potrero Hill Area Plans of the Eastern Neighborhoods PEIR, the non-residential reasonably foreseeable growth is well below what was anticipated. Therefore, population growth associated with approved and reasonably foreseeable development is within the population that was projected for 2025. Furthermore, the number of constructed projects in the Eastern Neighborhoods is well below what has been approved for all Plan areas.

The Eastern Neighborhoods PEIR used the growth projections to analyze the physical environmental impacts associated with that growth for the following environmental impact topics: Land Use; Population, Housing, Business Activity, and Employment; Transportation; Noise; Air Quality; Parks, Recreation, and Open Space; Utilities/Public Services; and Water. The analysis took into account the overall growth in the Eastern Neighborhoods and did not necessarily analyze in isolation the impacts of growth in one land use category, although each land use category may have differing severities of effects. The analysis of environmental topics covered in this checklist takes into account the differing severities of effects of the residential and employee population.

In summary, projects proposed in the Plan areas have not exceeded the overall population growth that was projected in the Eastern Neighborhoods PEIR; therefore, foreseeable growth in the Plan areas does not present substantial new information that was not known at the time of the PEIR, and would not result in new significant environmental impacts or substantially more severe adverse impacts than discussed in the PEIR.

The specific approach to the cumulative analysis is discussed in each environmental topic of this chapter. Cumulative projects known to the Planning Department that are in the immediate vicinity of the Proposed Project site that could combine with the Proposed Project to create a cumulatively considerable impact are listed in Table 4.A-1 below. These projects are reasonably foreseeable future projects in the vicinity of the Proposed Project that could cause wind, shadow, or geology and soils impacts that could combine with the impacts caused by the Proposed Project.

⁵ These estimates include projects that have completed environmental review, and foreseeable projects (including the proposed project). Foreseeable projects are those projects for which environmental evaluation applications have been submitted to the San Francisco Planning Department.

⁶ An issued building permit refers to buildings currently under construction or open for occupancy.

Table 4.A-1
List of Relevant Projects in the Cumulative Setting⁷

Project	Project Description
490 South Van Ness Avenue	Seven-story mixed use building up to 68 feet in height (with elevator penthouse, up to 77 feet), having a total of approximately 90,947 gsf; up to 72 dwelling units and 655 gsf of commercial/retail.
1450 15th Street	Five-story residential building up to 50 feet in height, having a total of 24,000 gsf, with 23 dwelling units.
1801 and 1863 Mission Street	Two new residential buildings in existing parking lots. Site 1: 17 dwelling units, 7 parking spaces, and 1,110 gsf of commercial/retail use in a seven-story, 68-foot-tall building; Site 2: 37 residential units, 17 parking spaces, and 22,610 gsf commercial/retail use in a building that would be four stories and 38 feet tall along Minna Street and seven stories and 65 feet tall along Mission Street.
1900 Mission Street	Six-story mixed use building up to 68 feet in height, having a total of 13,387 gsf; 11 dwelling units, and 837 gsf of retail on the ground floor and mezzanine level.
49 Julian Avenue and 1850 Mission Street	Five-story residential building up to 50 feet in height, having a total of 10,583 gsf and eight dwelling units.
80 Julian Avenue	Four-story commercial building up to 44 feet in height, having a total of 16,000 gsf.
2100 Mission Street	Six-story over basement mixed use building up to 65 feet in height, having 29 dwelling units, 3,000 gsf of ground floor commercial space, and 14 parking spaces.
3249 17th Street	Four-story mixed use building up to 50 feet in height, having a total of 6,341 gsf; three dwelling units, and a 1,996 gsf ground floor restaurant.
600 South Van Ness Avenue	Five-story mixed use building up to 58 feet in height, having a total of 32,000 gsf, 27 dwelling units, and 2,540 gsf of ground floor retail.
<p>Sources:</p> <p>San Francisco Planning Department, 2014. Neighborhood Notice of Project Receiving Environmental Review 1900 Mission Street, Case No. 2013.1330E. February 11.</p> <p>San Francisco Planning Department, 2015. CPE for 600 South Van Ness Avenue, Case No. 2013.0614U. April 9.</p> <p>San Francisco Planning Department, 2014. CPE for 490 South Van Ness, Case No. 2010.0043E. June 6.</p> <p>San Francisco Planning Department, 2015. Neighborhood Notice of Project Receiving Environmental Review 2100 Mission Street. Case No. 2009.0880E. June.</p> <p>San Francisco Planning Department, 2010. Categorical Exclusion for 49 Julian Avenue and 1850 Mission Street. Case No. 2005.0233E. January 13.</p> <p>San Francisco Planning Department, 2014. CPE for 1450 15th Street. Case No. 2013.0124E. August 20.</p> <p>San Francisco Planning Department, 2015. CPE for 1801 and 1863 Mission Street. Case No. 2009.1011E. March 19.</p> <p>San Francisco Planning Department, 2010. CPE for 80 Julian Avenue. Case No. 2009.1095E. June 23.</p> <p>San Francisco Planning Department, 2013. Discretionary Review Action DRA-0321 3249 17th Street. Case No. 2005.1155E. May 22.</p> <p>Note:</p> <p>gsf = gross square feet</p>	

⁷ As of February 24, 2016, an environmental evaluation application has been filed with the Planning Department for a proposal at 1950 Mission Street, Case No. 2016-001514ENV. This project has not been included in the cumulative analysis for this project, because baseline conditions for the cumulative analysis were set at the time the Notice of Preparation was issued for the proposed project on January 28, 2015.

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B. Wind and Shadow

Wind

1. Introduction

This section describes existing wind conditions in the vicinity of the project site, and evaluates the potential for the Proposed Project to alter wind in the project area in a manner that would affect public areas. Preliminary wind analysis found that the original massing for the Proposed Project would cause a hazardous wind impact. Therefore, the Proposed Project design was modified subsequent to publication of the CPE Checklist to eliminate the hazardous wind impact. The modification consisted of including a chamfered corner above the third floor at the southwestern corner of the Mission Street residential component. The analysis in this section is based on a wind study prepared by Rowan Williams Davies & Irwin Inc. (RWDI) for the Proposed Project design, as modified as described above.¹ Potential impacts are discussed and evaluated, and appropriate mitigation measures are identified where necessary. The impacts discussion also considers whether the Proposed Project, in combination with other reasonably foreseeable development projects, would contribute to cumulative environmental impacts related to wind.

2. Environmental Setting

In general, winds in San Francisco originate on the Pacific Ocean and blow through the City in an easterly direction. Average wind speeds in San Francisco are highest in the summer and lowest in winter, with the strongest peak winds occurring in winter. Throughout the year, the highest wind speeds occur in mid-afternoon, and the lowest in the early morning. Winds from the northwest, west-northwest, west, and west-southwest have the greatest frequency of occurrence, and make up the majority of the strong winds.

The exposure, massing, and orientation of a building can 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 the 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 due to the friction and drag of the structures. Buildings that are much taller than their surrounding buildings intercept and redirect winds down the vertical face of the building, where they create ground level wind and turbulence. These redirected winds can be relatively strong and also relatively turbulent, and can be incompatible with the intended use of nearby ground level spaces, depending on the level and type of pedestrian use.

Massing affects how much wind a building intercepts and whether wind accelerations would occur at ground level. Generally, slab shaped buildings oriented perpendicular to or with a wide axis perpendicular to the prevailing wind direction would have the greatest potential for wind acceleration. Buildings with setbacks or geometrically complex buildings are expected to generate less ground level wind acceleration. Building orientation also affects the amount of wind a structure intercepts and the corresponding extent of wind acceleration.

¹ RWDI (Rowan Williams Davies & Irwin Inc.), 2015. Pedestrian Wind Study, 1979 Mission Street. Prepared for Maximus Real Estate Partners. June 29.

The comfort of pedestrians varies under different conditions of sun exposure, temperature, and wind speed. Winds up to 4 miles per hour (mph) have no noticeable effect on pedestrian comfort. With velocities between 4 and 8 mph, wind is 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. Winds between 13 and 19 mph will raise loose paper, dust, and dry soil, and will disarrange hair. Winds between 19 and 26 mph will cause the force of the wind to be felt on the body. At 26 to 34 mph, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over 34 mph can result in loss of balance, and gusts can blow people over.

Existing wind speeds on the project site are generally acceptable, with wind speeds ranging from 7 to 18 mph and averaging 12 mph at grade level, as further discussed under Section 4.B.4.b, below.² The windiest location tested is the northeastern corner of the 16th and Capp Streets intersection.

3. Regulatory Framework

This subsection describes the applicable local laws and regulations that pertain to the identification and regulation of impacts related to wind. No federal or state regulations apply to the Proposed Project.

a. Local

San Francisco Planning Code (Planning Code) Section 148 outlines wind speed criteria for certain zoning districts: the Downtown (C-3) Districts, the Downtown Residential (DTR) Districts, the Folsom and Main Residential/Commercial Special Use District, the Van Ness Special Use District, and certain zoning districts in the South of Market neighborhood.²

The project site, located in the Mission Street Neighborhood Commercial Transit Zoning District, is not subject to Section 148. In addition, the comfort criteria do not apply to the Project for the purpose of analysis under CEQA. However, an analysis of the comfort criteria wind speeds defined in Section 148 is provided for the Proposed Project for informational purposes.

Planning Code Section 148 defines “equivalent wind speed” as “an hourly mean wind speed adjusted to incorporate the effect of gustiness or turbulence on pedestrians” and is used to determine comfort wind speeds. The pedestrian comfort wind speed criteria are 7 mph for seating areas and 11 mph for areas of substantial pedestrian use. At 7 mph, wind is felt on the face. At 11 mph, winds will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. A hazardous wind condition is when the wind speed exceeds 26 mph for a single hour of the year and is the threshold for making a finding of significance with respect to wind impacts that would result from the Proposed Project under CEQA.

4. Impacts and Mitigation

a. Significance Thresholds

The thresholds for determining the significance of impacts in this analysis are consistent with the Planning Department’s Initial Study checklist. For the purpose of this analysis, the applicable threshold used to determine whether the Project would result in a significant wind impact is whether the Proposed Project would alter the wind in a manner that substantially affects public areas.

² Ibid.

b. Approach to Analysis

Analysis of the comfort criteria wind speeds does not apply to projects under CEQA, and the Proposed Project is not subject to Planning Code Section 148. Analysis of the comfort criteria is presented for the Proposed Project for informational purposes only. However, the City uses the hazard criterion defined in Section 148 to determine significant wind impacts, and a new exceedance of the hazard criterion is considered a significant impact under CEQA.

Wind impacts are directly related to building design and articulation and the surrounding site conditions. The Eastern Neighborhoods PEIR determined that the area plans would not result in a significant wind impact because the proposed rezoning and community plans would not allow for structures tall enough to create significant impacts. For projects that are found, on initial examination, to result in potentially significant impacts on ground level winds, design modifications could typically be made to reduce these impacts to a less than significant level. The Planning Department, in its review of specific future projects, will continue to require analysis of wind impacts where deemed necessary, to ensure that project-level wind impacts would be reduced to a less than significant level.

Wind tunnel testing was conducted for the Proposed Project as part of the wind study prepared by RWDI. The wind tunnel test employed a 1:400 (1 inch = 33 feet) scale model that included the project site and relevant surrounding buildings, and topography within a 1,125 foot radius of the study site. The model was instrumented with 50 wind speed sensors at the locations shown on Figure 4.B-1 to measure mean and gust wind speeds at a full scale height of approximately 5 feet above local grade. The mean speed profile and turbulence of the natural wind approaching the modeled area were simulated in RWDI's boundary layer wind tunnel, and the 50 sensor locations were analyzed for both the comfort criteria and the hazard criteria under the following three scenarios:

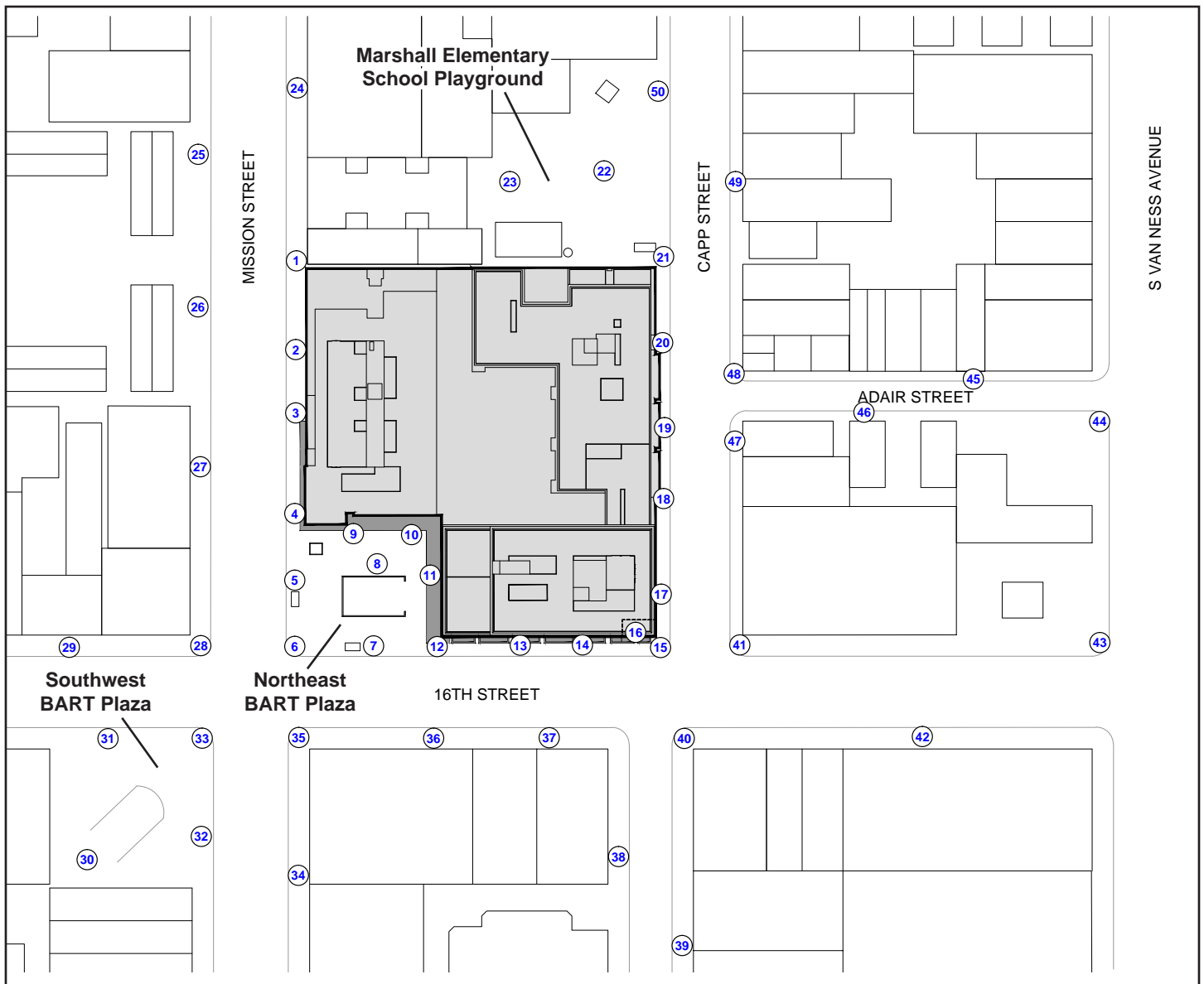
Existing conditions: Existing buildings on site and in the surroundings, including buildings already under construction;

Existing plus Project: The Proposed Project, as well as the surrounding existing buildings, buildings under construction, and approved projects; and

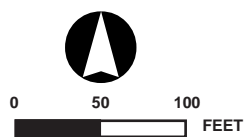
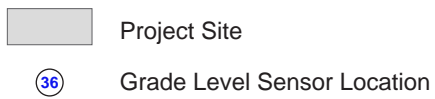
Project plus cumulative: The existing plus Proposed Project as defined above, and proposed projects pending before the City in the immediate project vicinity and listed in Table 4.A-1.

Two of these measurement locations on the project site (locations 11 and 16) were covered by the existing building in the existing conditions. Both of these locations would be accessible to pedestrians under the Existing plus Project condition, and have been presented for the Project plus cumulative condition (see Figure 4.B-1). Consistent with the City's pedestrian wind tunnel testing methodology, all measurements for locations shown on Figure 4B-1 were recorded and analyzed for the west-southwest, west, west-northwest, and northwest wind directions.

The comfort criteria are based on average wind speeds that are measured for 1 minute intervals. The hazard criterion is 26 mph, and is based on winds that are measured for 1 hour and averaged for a single full hour of the year. For consistency between the comfort level and hazardous wind criteria, the hazard criterion speed test result in the wind tunnel report for the Proposed Project in Table 4.B-2 is presented as a 1 minute average, which is equivalent to 36 mph.



Source: RWDI, 2015.



LOCATION OF WIND GROUND-LEVEL TEST POINTS

1979 Mission Street Project
San Francisco, California

FIGURE 4.B-1

c. Impact Evaluation

This section analyzes the Proposed Project's wind impacts.

Impact WS-1: The Proposed Project would not alter wind in a manner that substantially affects public areas in the vicinity of the project site. (*Less than Significant*)

As described below, implementation of the Proposed Project would slightly alter wind patterns in the vicinity of the project site, but not in a way that would substantially diminish the use of public areas.

As noted above under Section 4.B.3.a, the analysis of the comfort criteria wind speeds for the Proposed Project is provided for informational purposes only. The wind tunnel test results for wind comfort conditions at the 50 sensor locations shown on Figure 4.B-1 are summarized in Table 4.B-1. In the vicinity of the project site, wind conditions are generally acceptable under existing conditions, with wind speeds averaging 12 mph for all measurement locations at grade level. Winds at 28 of the 50 locations currently exceed the 11 mph pedestrian comfort criterion established by Planning Code Section 148.

Under the existing plus Project condition, the Mission Street and 16th Street residential components would shelter areas to the east of the site from the prevailing westerly winds. Overall wind comfort conditions and wind speeds would continue to average 12 mph, similar to those under the existing conditions. The number of locations where wind speeds would exceed the 11 mph criterion would decrease from the existing 28 locations to 22 locations under existing plus Project conditions (see Table 4.B-1). Therefore, the Proposed Project would slightly improve wind comfort in the vicinity of the Project site in comparison to existing conditions.

Wind Hazard Analysis

The wind tunnel test results for wind hazard conditions at the 50 sensor locations are summarized in Table 4.B-2. Table 4.B-2 indicates that the wind speed at each sensor location exceeded 1 hour per year. Under the existing conditions, this averages 23 mph, which is below the hazard criterion of 36 mph. Under existing conditions, the only exceedance of the hazard criterion is at the northeastern corner of 16th and Capp Streets (Location 41), where wind speeds would reach 38 mph for 2 hours per year.

Under the existing plus Project conditions, the hazardous wind condition at location 41 would be eliminated, and no other locations would exceed the hazard criterion. Winds would continue to average 23 mph under the existing plus Project conditions. Therefore, the Proposed Project would not result in significant impacts related to the wind hazard criterion, and the wind impacts would result in a less than significant impact related to winds. No mitigation measures are necessary.

d. Cumulative Impacts

Impact C-WS-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects, would not alter wind in a manner that substantially affects public areas in the vicinity of the project site. (*Less than Significant*)

The geographic scope for cumulative wind impacts includes the area within an approximately two-block radius of the project site, because these buildings could affect the wind conditions in the project vicinity.

Other reasonably foreseeable development projects in the immediate project vicinity are listed in Table 4.A-1 and were included in the Project plus cumulative conditions analyzed in the wind tunnel test for both wind comfort and wind hazard criteria at the 50 sensor locations.

Table 4.B-1
Wind Comfort Results

Location Number	Existing			Existing Plus Project				Existing Plus Cumulative			
	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds
1	13	21	E	13	20	0	E	13	19	0	E
2	12	17	E	11	7	-2		11	10	-2	
3	15	25	E	11	10	-3		13	18	-2	E
4	16	29	E	18	38	2	E	16	31	1	E
5	13	20	E	18	37	5	E	17	34	4	E
6	13	19	E	16	28	3	E	15	26	2	E
7	11	10		16	28	5	E	15	27	5	E
8	10	6		11	10	1		11	10	1	
9	10	7		8	2	-2		7	0	-3	
10	11	10		11	10	-1		10	6	-1	
11*	n/a	n/a	n/a	14	20	n/a	E	14	21	n/a	E
12	15	26	E	19	42	4	E	20	45	5	E
13	12	15	E	11	10	-1		10	8	-2	
14	10	5		9	24	-1		8	2	-1	
15	10	7		9	04	-1		9	2	-2	
16*	n/a	n/a	n/a	5	0	n/a		5	0	n/a	
17	11	10		7	1	-4		7	1	-3	
18	10	7		8	2	-2		10	5	-1	
19	12	14	E	9	3	-3		9	2	-3	
20	12	12	E	9	4	-2		9	2	-3	
21	13	19	E	14	24	1	E	13	18	0	E
22	9	4		9	4	0		9	2	-1	
23	7	1		6	0	-1		6	0	-1	
24	15	27	E	15	27	0	E	15	24	0	E
25	10	6		13	19	3	E	14	20	4	E
26	9	3		14	23	5	E	14	21	5	E
27	8	2		13	19	5	E	12	16	4	E
28	11	10		12	12	0	E	11	10	0	
29	12	14	E	11	10	-1		11	10	-1	

Table 4.B-1
Wind Comfort Results (Continued)

Location Number	Existing			Existing Plus Project				Existing Plus Cumulative			
	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds
30	8	1		8	1	0		8	1	0	
31	13	21	E	13	20	0	E	13	19	-1	E
32	11	10		12	13	1	E	11	10	1	
33	11	10		11	10	0		11	10	0	
34	12	17	E	12	16	0	E	12	16	0	E
35	18	39	E	17	37	0	E	17	34	-1	E
36	11	10		13	20	2	E	13	20	2	E
37	14	23	E	18	38	4	E	18	39	5	E
38	11	10		9	5	-2		9	4	-2	
39	13	19	E	9	6	-4		11	10	-2	
40	12	13	E	12	12	0	E	13	17	1	E
41	17	34	E	10	5	-8		10	5	-8	
42	12	14	E	10	8	-1		11	10	-1	
43	14	21	E	11	10	-3		11	10	-3	
44	13	19	E	10	7	-2		14	20	1	E
45	13	20	E	11	10	-2		11	10	-2	
46	13	21	E	8	3	-5		7	1	-6	
47	12	13	E	9	4	-3		8	2	-4	
48	15	29	E	15	28	0	E	14	24	-1	E
49	12	15	E	13	17	1	E	13	16	1	E
50	11	10		10	7	0		10	5	-1	
Average mph, Average %, and Total Exceedances	12	15	28	12	14	0	22	12	14	0	22

Notes:

* Locations 11 and 16 are currently covered by the existing building on the project site.

mph = miles per hour

E= exceeds

Source: RWDI (Rowan Williams Davies & Irwin Inc.), 2015. Pedestrian Wind Study, 1979 Mission Street. Prepared for Maximus Real Estate Partners. June 29.

Table 4.B-2
Wind Hazard Results

Location Number	Existing			Existing Plus Project				Existing Plus Cumulative			
	Wind Speed Exceeded 1 hour/ year (mph)	Hours Per Year Wind Speeds Exceed Hazard Criteria	Exceeds	Wind Speed Exceeded 1 hour/ year (mph)	Hours Per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 hour/ year (mph)	Hours Per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds
1	23	0		25	0	0		24	0	0	
2	23	0		19	0	0		19	0	0	
3	27	0		21	0	0		23	0	0	
4	31	0		35	0	0		32	0	0	
5	27	0		36	0	0		34	0	0	
6	23	0		32	0	0		29	0	0	
7	21	0		35	0	0		35	0	0	
8	20	0		19	0	0		19	0	0	
9	19	0		16	0	0		13	0	0	
10	23	0		22	0	0		19	0	0	
11*	n/a	n/a	n/a	28	0	n/a		27	0	n/a	
12	28	0		35	0	0		36	0	0	
13	21	0		24	0	0		22	0	0	
14	19	0		17	0	0		17	0	0	
15	21	0		20	0	0		18	0	0	
16*	n/a	n/a	n/a	12	0	n/a		12	0	n/a	
17	21	0		14	0	0		15	0	0	
18	21	0		15	0	0		18	0	0	
19	23	0		16	0	0		16	0	0	
20	22	0		16	0	0		15	0	0	
21	23	0		27	0	0		25	0	0	
22	18	0		17	0	0		15	0	0	
23	13	0		11	0	0		11	0	0	
24	26	0		28	0	0		26	0	0	
25	18	0		24	0	0		25	0	0	
26	17	0		28	0	0		25	0	0	
27	16	0		27	0	0		24	0	0	
28	21	0		25	0	0		22	0	0	
29	21	0		20	0	0		19	0	0	

Table 4.B-2
Wind Hazard Results (Continued)

Location Number	Existing			Existing Plus Project				Existing Plus Cumulative			
	Wind Speed Exceeded 1 hour/ year (mph)	Hours Per Year Wind Speeds Exceed Hazard Criteria	Exceeds	Wind Speed Exceeded 1 hour/ year (mph)	Hours Per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 hour/ year (mph)	Hours Per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds
30	14	0		14	0	0		14	0	0	
31	24	0		23	0	0		23	0	0	
32	20	0		22	0	0		21	0	0	
33	20	0		20	0	0		20	0	0	
34	22	0		21	0	0		21	0	0	
35	31	0		30	0	0		28	0	0	
36	18	0		24	0	0		25	0	0	
37	25	0		36	0	0		35	0	0	
38	21	0		19	0	0		19	0	0	
39	23	0		21	0	0		25	0	0	
40	22	0		26	0	0		27	0	0	
41	38	2	E	19	0	-2		19	0	-2	
42	20	0		22	0	0		22	0	0	
43	28	0		21	0	0		21	0	0	
44	23	0		20	0	0		32	0	0	
45	24	0		22	0	0		22	0	0	
46	24	0		17	0	0		16	0	0	
47	24	0		18	0	0		17	0	0	
48	29	0		29	0	0		26	0	0	
49	25	0		25	0	0		25	0	0	
50	21	0		20	0	0		18	0	0	
Average mph, Total Hours, and Total Exceedances	23	2	1	23	0	-2	0	22	0	-2	0
Notes: * Locations 11 and 16 are currently covered by the existing building on the project site. mph = miles per hour E= exceeds Source: RWDI (Rowan Williams Davies & Irwin Inc.), 2015. Pedestrian Wind Study, 1979 Mission Street. Prepared for Maximus Real Estate Partners. June 29.											

For wind comfort conditions, as shown in Table 4.B-1, average wind speeds would remain at 12 mph under the Project plus cumulative conditions, which is similar to existing and existing plus Project conditions. Wind speeds at 22 of the 50 sensor locations are shown to exceed the comfort criterion under the Project plus cumulative conditions, similar to the existing plus Project condition. For wind hazard conditions, Table 4.B-2 shows the average wind speed to be 22 mph under the Project plus cumulative conditions, which is similar to existing and existing plus Project conditions. As is the case under the Existing plus Proposed Project conditions, the existing hazardous wind condition at sensor location number 41, located at the northeastern corner of 16th and Capp Streets, would be eliminated under Cumulative plus Proposed Project conditions. The wind speed test results at all locations under the Project plus cumulative condition would be below the hazard criterion. Therefore, the Proposed Project, combined with other foreseeable development in the immediate vicinity, would result in less than significant cumulative wind impacts. No mitigation measures are necessary.

Shadow

5. Introduction

This section describes the existing shadow conditions at the project site and its vicinity, and evaluates the potential for the Proposed Project to have shadow impacts on the surrounding outdoor recreation facilities and other public open spaces. The analysis in this section is based on the shadow study prepared for the Proposed Project by CADP.³ Potential impacts are discussed and evaluated, and appropriate mitigation measures are identified where necessary. The impact discussion also considers whether the Proposed Project, in combination with other reasonably foreseeable development projects, would contribute to cumulative impacts related to shadow.

6. Environmental Setting

Shadow conditions are described with reference to the Theoretical Available Annual Sunlight (TAAS), which is the amount of sunlight that would be available in a park or open space in the course of a year if there were no shadows from structures, trees, or other objects. TAAS is calculated in square foot hours (sfh), which is the expression of shadow, based on 15-minute sample times over the course of an hour, by multiplying the area in square feet of the park/open space by 3,721.4 (the maximum number of hours of sunlight available on an annual basis in San Francisco). Existing and new shadows cast by the Proposed Project are measured by the annual amount of shadow, expressed in sfh as a percent of TAAS.

There are several outdoor recreation facilities and other public open spaces in the project site vicinity that are potentially within reach of the Proposed Project's shadow. These facilities and open spaces are: Marshall Elementary School, including the Playground and the outdoor learning area, which is a San Francisco Unified School District (SFUSD) property; and the Northeast and Southwest 16th Street Mission BART Plazas (Northeast and Southwest BART Plazas, respectively), which are BART properties (see Figure 4.B-2).

None of the outdoor recreation facilities or other public open spaces in the project vicinity that are potentially within reach of the Proposed Project's shadow are under the jurisdiction of the San Francisco Recreation and Park Commission.

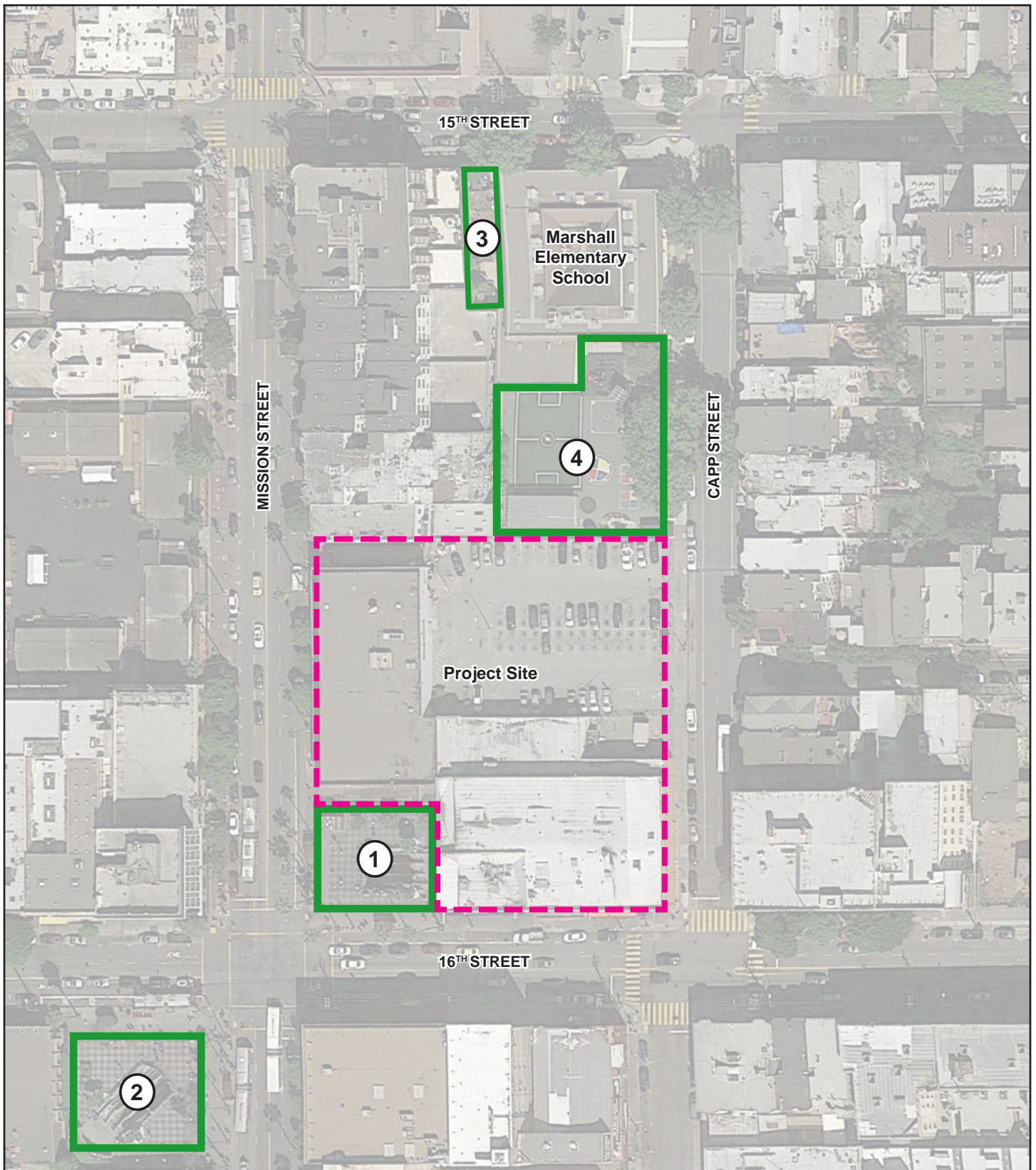
Schools are not clearly "public open space." However, because the school serves an open space function in a neighborhood with limited public play areas, an assessment of shadow on the playground was considered an impact on the environment for the purposes of this EIR.

a. Marshall Elementary School

Marshall Elementary School is located on the corner of 15th and Capp Streets adjacent to the project site. Marshall Elementary School is part of the SFUSD, with kindergarten through 5th grade students, and also provides a Spanish/English Two Way Immersion Program. Total enrollment for school year 2013/2014 was 256 students.⁴ The annual school year is typically from mid-August through mid-June. The school facilities, including the Playground, are used on Monday through Friday from 8:15 a.m. through 6:00 p.m.

³ CADP, 2015. 1979 Mission Street Shadow Analysis. Prepared for Maximus Real Estate Partners. November.

⁴ San Francisco Unified School District, 2015. School Accountability Report Card, School Year 2013-2014. Marshall Elementary School. Available online at: <http://www.sfusd.edu/en/schools/school-information/marshall.html>. Accessed November 1, 2015.



Project Site

①

Northeast BART Plaza

②

Southwest BART Plaza

③

Marshall Elementary School
Outdoor Learning Area

④

Marshall Elementary School Playground



OUTDOOR RECREATION FACILITIES AND PUBLIC AREAS WITHIN REACH OF THE PROPOSED PROJECT'S SHADOW

1979 Mission Street Project
San Francisco, California

FIGURE 4.B-2

The school day ends at 2:40 p.m., and the After School Program begins at 2:40 p.m. and ends at 6:00 p.m.⁵ The Playground is used for recess and lunch times between 10:15 a.m. and 1:00 p.m., and for physical education classes during the rest of the time.

In past years, a Summer Program was held at the school during the summer break, which included activities in the Marshall Elementary School Playground (Playground) from 8:15 a.m. to 3:15 p.m. SFUSD has consolidated the number of school sites at which the Summer Program is offered, and there currently is no summer program at Marshall Elementary School.⁶

The Playground, located on the southern portion of the school site along Capp Street between the Marshall Elementary School building and the project site (designated as #4 on Figure 4.B-2), is approximately 14,676 square feet in size and relatively flat. The Playground consists of a paved play area with a designated kickball diamond, foursquare game area, basketball hoop, jungle gym, and a turf field. A temporary trailer used as a library is situated at the southwestern corner of the Playground (see Figure 4.B-3).⁷

An approximately 2,577 square foot outdoor learning area that provides a garden and classroom space is west of the main school building (designated as #3 on Figure 4.B-2) and is typically in use from 9:00 a.m. through 5:00 p.m., Monday through Friday.⁸

Marshall Elementary School Playground – Existing Shadows

The TAAS for the Playground is approximately 54,615,706 sfh, which is the amount of sunlight that would be available on the Playground in the course of a year if there were no shadows from existing structures, trees, or other objects. Existing buildings around the Playground, including the two buildings at the project site, shade the Playground approximately 22 percent of the time with an existing shadow load of approximately 12,061,131 sfh. The existing shadow is caused primarily by the existing one to four story buildings to the east across Capp Street, and the existing two to three story buildings west of the Playground.

During the winter, the Playground is completely shaded by existing buildings at 8:00 a.m. More than 80 percent of the Playground, including approximately 80 percent of the turf field, all of the athletic courts, and the jungle gym areas, is in sunlight between approximately 9:00 a.m. and 1:00 p.m. After 1:00 p.m., the Playground is covered by shadows from existing buildings to the west of the Playground and from the existing trailer at the southwestern corner of the Playground. Half of the Playground is shaded by 3:00 p.m., and is almost entirely shaded by 4:00 p.m. (see Figures 4.B-4 and 4.B-5, pages 4.B-22 and 4.B-23 in Section 4.B.8.c, Impact Evaluation).⁹ As the season transitions from winter to summer, the Playground experiences less shadow from existing buildings throughout the day.

During the summer, the Playground is largely shaded at 6:00 a.m., is more than 90 percent sunny by 8:00 a.m., and remains sunny until approximately 4:00 p.m. (see Figures 4.B-6 and 4.B-7, pages 4.B-25 and 4.B-26 in Section 4.B.8.c, Impact Evaluation). Between 4:00 p.m. and 6:00 p.m., the shadows from existing buildings to

⁵ Avila, Peter, 2014. Telephone record of communication between Debra Dwyer, Planning Department staff, and Peter Avila, Principal, Marshall Elementary School. November 20.

⁶ Ibid.

⁷ Avila, Peter, 2014. Telephone record of communication between Debra Dwyer, Planning Department staff, and Peter Avila, Principal, Marshall Elementary School. November 20.

⁸ Ibid.

⁹ Figures in this section of the EIR show shadows at 9:00 a.m., 11:00 a.m., 1:00 p.m., and 3:00 p.m., which generally covers the range of times corresponding with peak day use of the outdoor facilities and open space. For a complete set of figures and hours analyzed, please refer to the shadow study prepared for the Project:

CADP, 2015. 1979 Mission Street Shadow Analysis. Prepared for Maximus Real Estate Partners. November.

the west and from the temporary trailer on the Playground begin to shade the Playground. By 7:00 p.m., the Playground is predominantly shaded. As the season transitions from summer to autumn, the Playground experiences more morning shadow from the existing buildings to the east, and from 2:00 p.m. until sunset, the shadow on the Playground increases in size from the existing buildings to the west.

During the autumn and spring, the Playground is mostly shaded at 8:00 a.m. It becomes largely sunny by approximately 9:00 a.m. The Playground remains sunny until approximately 3:00 p.m., when the shadows from the existing buildings to the west and from the temporary trailer on the Playground start to shade the Playground (see Figures 4.B-8 and 4.B-9, pages 4.B-27 and 4.B-28 in Section 4.B.8.c, Impact Evaluation). By 6:00 p.m., the Playground is almost entirely shaded by the existing buildings to the west. As the season transitions from autumn to winter, the shadows from existing buildings shade an increasingly larger area of the Playground throughout the day.

Marshall Elementary School Outdoor Learning Area – Existing Shadows

The Marshall Elementary School Outdoor Learning Area provides a garden and classroom space, and is typically in use from 9:00 a.m. through 5:00 p.m., 5 days per week (Monday through Friday).¹⁰ The TAAS for the Marshall Elementary School outdoor learning area is approximately 9,592,307 sfh, which is the amount of sunlight that would be available on the outdoor learning area in the course of a year if there were no shadows from existing structures, trees, or other facilities. Under existing conditions, the outdoor learning area is shaded approximately 63 percent of the time, and has an existing shadow load of approximately 6,022,990 sfh. The existing shadow on the outdoor learning area is caused by the school building, as well as the existing four to five story buildings to the west of the outdoor learning area.

During the winter, the outdoor learning area is completely shaded until after 10:00 a.m. It becomes completely sunny by 11:00 a.m., and remains so until after 1:00 p.m., when the existing buildings to the west begin to cast a shadow on the outdoor learning area. The area is completely shaded by 2:00 p.m. (see Figures 4.B-4 and 4.B-5, pages 4.B-22 and 4.B-23 in Section 4.B.8.c, Impact Evaluation). As the season transitions from winter to summer, the outdoor learning area experiences decreasing amounts of shadow from existing buildings throughout the day.

During the summer, the outdoor learning area is completely shaded until 10:00 a.m. The shadow recedes, and the outdoor learning area is largely sunny by 11:00 a.m. After 3:00 p.m., the existing buildings to the west start to cast a shadow on the outdoor learning area (see Figures 4.B-6 and 4.B-7, pages 4.B-25 and 4.B-26 in Section 4.B.8.c, Impact Evaluation). By 5:00 p.m., the outdoor learning area is fully in the shade. As the season transitions from summer to autumn, the outdoor learning area experiences increasing morning shadow due to the existing school building.

During autumn and spring, the outdoor learning area is completely shaded in the morning until after 10:00 a.m., when the shadow begins to recede. By 12:00 p.m., the outdoor learning area is almost entirely sunny. The existing buildings to the west start to cast a shadow on the outdoor learning area around 3:00 p.m. and the outdoor learning area is fully shadowed by 4:00 p.m. (see Figures 4.B-8 and 4.B-9, pages 4.B-27 and 4.B-28 in Section 4.B.8.c, Impact Evaluation). As the season transitions from autumn to winter, the outdoor learning area becomes sunny slightly earlier in the morning, although it also becomes shaded earlier in the afternoon.

¹⁰ Avila, Peter, 2014. Telephone record of communication between Debra Dwyer, Planning Department staff, and Peter Avila, Principal, Marshall Elementary School. November 20.

b. 16th Street Mission BART Station Plazas

The project site forms the northern and eastern boundaries of the street level plaza of and northeastern entrance to the 16th Street Mission BART Station (see Figure 4.B-2), which is one of two BART stations in the Mission neighborhood and has an average weekday ridership of about 12,989 persons.¹¹ The two plazas of the 16th Street Mission BART Station, set diagonally opposite each other at the intersection of 16th and Mission Streets, provide access to the BART station. The plazas also serve as passive open space for the community.

The Northeast BART Plaza (designated as #1 on Figure 4.B-2) is approximately 5,821 square feet in size, and the Southwest BART Plaza (designated as #2 on Figure 4.B-2) is approximately 8,678 square feet in size. The plazas were renovated in 2006 and 2003, respectively, and incorporate artwork into both the functional elements (such as fencing) and the sculptural elements (such as work atop the elevator). Both plazas also include seats and benches, trash collection receptacles, and palm and magnolia trees.

The Northeast BART Plaza is bordered by single story commercial uses on the project site to the north and east, 16th Street to the south, and Mission Street to the west. The escalators and stairs in the southeastern portion of the plaza and a BART elevator in the northwestern portion of the plaza provide access to the BART trains. Bus stops are adjacent to the plaza on both Mission and 16th Streets. There are seats and benches to the west and south of the BART escalator railing, and trees along areas of the periphery of the plaza.

The Southwest BART Plaza is bordered by single story commercial uses to the south, with two and three story buildings beyond, buildings ranging from one to four stories to the west, 16th Street to the north, and Mission Street to the east. The plaza provides access to the BART station escalators and stairs in the southwestern portion of the plaza, and there is a public restroom near the northwestern corner of the plaza along the sidewalk. There are bus stops adjacent to the plaza on Mission and 16th Streets. There are seats and benches along the northern and eastern periphery of the plaza, with the steps around the BART escalator railing used as additional seating. Several trees are located along the periphery of the plaza.

There are two bus stops along each of the BART Plazas. At each plaza, there is a stop along 16th Street and a stop along Mission Street. The 16th Street bus stops serve the 22 Fillmore, the 55 16th Street, and the 33 Stanyan bus routes. The Mission Street bus stops serve the 14 Mission, the 14R Mission Rapid (formerly the 14L Mission Limited), and the 49 Van Ness-Mission bus routes. For the 33 Stanyan route, the inbound stop is on Mission Street adjacent to the Southwest BART Plaza, but the outbound stop is on 16th Street, across the street from the Northeast BART Plaza.

The Planning Department surveyed the use of the BART Plazas as part of the Mission Public Life Plan.¹² The surveys assessed how people use the public open space in each plaza, as well as at the bus stop on 16th Street and the bus stop on Mission Street. Based on the survey, the majority of the use of the BART Plazas occurs in the open plaza areas, rather than at the bus stops. During weekdays, the plazas are used mostly during the late morning/early afternoon (11:00 a.m. through 2:00 p.m.), then in late afternoon (4:00 p.m. through 5:00 p.m.). During weekends, the use of the Northeast BART Plaza generally increases throughout the afternoon, and peaks in the late afternoon (4:00 p.m. through 5:00 p.m.), while use of the

¹¹ BART (Bay Area Rapid Transit), 2015. BART Fiscal Year Weekday Average Exits By Station. Available online at: bart.gov/about/reports/ridership. Accessed October 22, 2015.

¹² The surveys were conducted as part of the Planning Department's community based planning effort to develop the Mission Public Life Plan. The Mission Public Life Plan looks at how Mission Street is used between its intersections with Van Ness Avenue and Randall Street, and explores ideas that can express the needs and identity of its users. More information regarding the Mission Public Life Plan can be found at the Planning Department web page for the plan, available online at: http://www.sf-planning.org/ftp/files/Citywide/mission_street_public_life_plan/Mission_PLP_final_web.pdf.

Southwest BART Plaza remains relatively constant throughout the day. The bus stops adjacent to the BART Plazas generally experience peak use during weekday morning hours (8:00 a.m. through 12:00 p.m.). The use of the Mission Street bus stops also increases during weekday late afternoons (4:00 p.m. through 5:00 p.m.). Peak use of bus stops on weekends is generally mid-day from 11:00 a.m. through 2:00 p.m., and also in the late afternoon (3:00 p.m. through 5:00 p.m.).¹³

Northeast BART Plaza – Existing Shadows

The TAAS for the Northeast BART Plaza is approximately 21,663,099 sfh, which is the amount of sunlight that would be available on the plaza in the course of a year if there were no shadows from existing structures, trees, or other objects. The Northeast BART Plaza is shaded approximately 24 percent of the time and has an existing shadow load of 5,229,783 sfh under existing conditions. The existing shadow on the Northeast BART Plaza is caused by the existing three to five story buildings to the south of the plaza, across 16th Street, and by the existing one story building east of the Northeast BART Plaza, on the project site.

In the winter, the Northeast BART Plaza is fully shaded until approximately 9:00 a.m. by the existing buildings to the south, across 16th Street, and the buildings at the corner of Capp and 16th Streets. After 9:00 a.m., the existing shadow begins to recede. The majority of the Northeast BART Plaza is in the sun by 11:00 a.m., and remains sunny until 4:00 p.m. By 4:00 p.m., shadows from the existing buildings across Mission Street to the southwest begin to shade the plaza (see Figures 4.B-4 and 4.B-5, pages 4.B-22 and 4.B-23 in Section 4.B.8.c, Impact Evaluation). As the season transitions from winter to summer, the Northeast BART Plaza experiences decreasing amounts of shadow from existing buildings throughout the day.

During the summer, the Northeast BART Plaza is fully shaded by existing buildings to the east of the project site at 7:00 a.m. The existing shadow decreases throughout the morning; the plaza becomes predominantly sunny by 10:00 a.m. and is entirely sunny by 1:00 p.m. Shadows from buildings across Mission Street to the west begin to shade the Northeast BART Plaza around 6:00 p.m., and most of the plaza is in shade by 8:00 p.m. (see Figures 4.B-6 and 4.B-7, pages 4.B-25 and 4.B-26 in Section 4.B.8.c, Impact Evaluation). As the season transitions from summer to autumn, the Northeast BART Plaza experiences more shadow from existing buildings throughout the day.

During the autumn and spring, the majority of the plaza is shaded by existing buildings on the project site at 8:00 a.m., and the shadow decreases throughout the morning. The majority of the plaza is in the sun by noon. Shadows from existing buildings to the west, across Mission Street, start to shade the plaza around 5:00 p.m. Most of the plaza is in the shade by 6:00 p.m. (see Figures 4.B-8 and 4.B-9, pages 4.B-27 and 4.B-28 in Section 4.B.8.c, Impact Evaluation). As the season transitions from autumn to winter, the Northeast BART Plaza experiences increasing amounts of shadow from existing buildings throughout the day.

Southwest BART Plaza – Existing Shadows

The TAAS for the Southwest BART Plaza is 32,295,798 sfh, which is the amount of sunlight that would be available on the plaza in the course of a year if there were no shadows from existing structures, trees, or other objects. Under existing conditions, the Southwest BART Plaza is shaded approximately 32 percent of the time, and has an existing shadow load of 10,330,082 sfh. The existing shadow on the Southwest BART Plaza is caused by the existing buildings east across Mission Street, and the buildings immediately to the south and west of the plaza.

¹³ BART Plaza use data from Mission Public Life Survey. Microsoft Excel file. October 19, 2015. Provided in email from Debra Dwyer, Planning Department staff, to Julian Bobilev, AECOM.

During the winter, the entire plaza is shaded by existing buildings at 8:00 a.m. The existing shadow decreases throughout the morning until around 3:00 p.m., but the southern half of the plaza remains largely shaded by existing buildings to the south and west. After 3:00 p.m., the majority of the plaza is shaded again (see Figures 4.B-4 and 4.B-5 on pages 4.B-22 and 4.B-23, Section 4.B.8.c, Impact Evaluation). As the season transitions from winter to summer, the Southwest BART Plaza experiences decreasing amounts of shadow from existing buildings throughout the day.

During the summer, the Southwest BART Plaza is partially shaded by existing buildings to the east from 6:00 a.m. to approximately 9:00 a.m. The shadows decrease until the entire plaza is in the sun by 9:00 a.m. Minimal shadows from buildings to the west begin to shade the plaza around 3:00 p.m., and the shadow continues to increase throughout the afternoon. By 7:00 p.m., the majority of the western portion of the plaza is shaded, and it is almost entirely shaded by existing buildings by 8:00 p.m. (see Figures 4.B-6 and 4.B-7, pages 4.B-25 and 4.B-26 in Section 4.B.8.c, Impact Evaluation). As the season transitions from summer to autumn, the Southwest BART Plaza experiences increasing amounts of shadow from existing buildings throughout the day.

During the autumn and spring, the entire plaza is shaded by existing buildings at 8:00 a.m. The shadows decrease until 10:00 a.m., when the plaza is almost entirely sunny except for a small portion of the southern end of the plaza shaded by existing buildings to the south. Shadows from the buildings to the west start to shade the plaza around 2:00 p.m. The plaza is approximately half shaded by 5:00 p.m., and is fully shaded by 6:00 p.m. (see Figures 4.B-8 and 4.B-9, pages 4.B-27 and 4.B-28 in Section 4.B.8.c, Impact Evaluation). As the season transitions from autumn to winter, the Southwest BART Plaza experiences increased shadows from existing buildings throughout the day.

7. Regulatory Framework

This section describes the applicable local laws and regulations that pertain to the identification and regulation of impacts related to shadow. No federal or state regulations apply to the Proposed Project with regard to shadow.

a. Local

Planning Code Section 295

Planning Code Section 295, also known as Proposition K – the Sunlight Ordinance, mandates that the Planning Commission may only approve new structures that would cast shadows on properties under the jurisdiction of, or designated to be acquired by, the San Francisco Recreation and Park Commission (RPC) if such shadows are insignificant or will not adversely affect the use of the park. Section 295 does not apply to structures that do not exceed 40 feet in height; to public open space not under the jurisdiction of RPC; or to structures that cast a shadow on RPC property or property designated for acquisition by RPC, only during the first hour after sunrise and/or the last hour before sunset.

Because there are no properties under the jurisdiction of RPC, or designated to be acquired by RPC within the potential area of shading by the Proposed Project, as shown by the shadow fan prepared for the Proposed Project,¹⁴ the Proposed project does not require approvals pursuant to Section 295.

¹⁴ San Francisco Planning Department, 2014. 1979 Mission Street Shadow Fan Analysis. May 21.

8. Impacts and Mitigation Measures

a. Significance Thresholds

The thresholds for determining the significance of impacts in this analysis are consistent with the Planning Department's Initial Study checklist. The applicable threshold used to determine whether the Proposed Project would result in a significant shadow impact is whether implementing the Proposed Project would create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas.

b. Approach to Analysis

The voters of San Francisco adopted Proposition K in 1984, mandating that all future development projects in the City that are more than 40 feet in height would be subject to the review process codified as Planning Code Section 295. The Eastern Neighborhoods PEIR determined that implementation of the Eastern Neighborhood Rezoning and Area Plans could result in new shadow on plan area parks; possibly in substantial amounts, depending on the specifics of the future individual proposals. The feasibility of mitigating potential new shadow impacts of all future development proposals to less than significant levels could not be determined at the time of publication of the Eastern Neighborhoods PEIR. Therefore, no mitigation measures were identified and the Eastern Neighborhoods PEIR identified a significant and unavoidable shadow impact. None of the outdoor recreation facilities or public open spaces affected by the Proposed Project was specifically analyzed in the Eastern Neighborhoods PEIR.

Because the Proposed Project includes structures that exceed 40 feet in height, the Planning Department prepared a "shadow fan" analysis to determine whether the Proposed Project would cast any shade or shadow on any property under the jurisdiction of, or designated for acquisition by, the RPC. It was found that the Proposed Project would not shade any properties under the jurisdiction of the RPC, and therefore is not subject to the provisions of Planning Code Section 295. However, further quantitative shadow analysis was determined to be required because the Proposed Project has the potential to shade public plazas and other public open spaces.

The significance threshold for environmental review for open space considers usage; time of day and/or time of year; physical layout and facilities affected; the intensity of use; the size and location of the shadow; and the percentage of the open space affected. If the Planning Department determines, based on these factors, that the use and enjoyment of the outdoor recreation facilities or open space would be substantially and adversely affected, then the impact is considered "significant" pursuant to CEQA.

The outdoor recreation facilities and public areas that could be affected by the Proposed Project include the Marshall Elementary School Playground and outdoor learning area and the two public plazas at the 16th Street Mission BART Station. A shadow analysis was prepared to quantify the amount of new shadow that would be cast by the Proposed Project on these areas consistent with the Planning Department's shadow analysis procedures.¹⁵ Quantitatively, new shadows cast by a Proposed Project are measured by the net new annual amount of shadow (i.e., shadow load) expressed in sfh. The analysis was conducted based on a solar year (June 21 through December 20) to provide a sample of

¹⁵ San Francisco Planning Department, 2014. Shadow Analysis Procedures and Scope Requirements Memorandum. July.

representative sun angles throughout the entire calendar year. The sun angles during December 21 through June 20 mirror the solar year sun angles, and an analysis of the other portions of the calendar year was not conducted. December 20, June 21, and September 20 were examined in the analysis, representing the winter, summer, and autumn/spring seasons, respectively.

Shadow diagrams are “snapshots” taken at a particular representative time of day and day of the year. They illustrate the extent and location of shadows cast by existing buildings, new shadow from a proposed development project, and the remaining sunlight on the subject open space. A series of shadow diagrams from the same day demonstrates how the shadow moves across the space over a specific period of time. Shadow diagrams are presented in this section, and serve as the basis for the qualitative discussion of shadow impacts. Fog, rain, and shadows from trees either existing or proposed are not taken into account in the shadow analysis.

Figures 4.B-4 through 4.B-9 show shadows at 9:00 a.m., 11:00 a.m., 1:00 p.m., and 3:00 p.m., which includes the time period of peak use of the Playground and the 16th Mission Street BART Plazas in the project vicinity. A complete set of figures and data for the time snapshots analyzed is provided in the shadow study prepared for the Project.¹⁶

c. Impact Evaluation

This section analyzes the Proposed Project’s impacts related to shadow.

Impact WS-2: The Proposed Project would create new shadow in a manner that could substantially affect the Marshall Elementary School outdoor recreation facilities and open space. (*Significant and Unavoidable*)

The Proposed Project’s shadow impacts on the Marshall Elementary School Playground are discussed first, followed by the outdoor learning area.

Marshall Elementary School Playground – New Shadow

The Marshall Elementary School Playground includes a paved play area with drawn kickball diamond and foursquare game area, a basketball hoop, a jungle gym, and a turf field. The Playground is generally used throughout the day, from 8:15 a.m. through 6:00 p.m. In addition to being used for recess and lunch/recess periods, the playground is used during the school day for physical education classes. After 2:40 p.m., the Playground is used for the After School Program.¹⁷

Since filing its initial applications, the design of the Proposed Project has been refined to set back the fifth floor of the Capp Street residential component 13 feet from the northern property line and the Mission Street residential component above 65 feet approximately 17.5 to 30 feet from the northern property line to allow additional sunlight access to the Playground (see Chapter 2, Project Description).

¹⁶ CADP, 2015. 1979 Mission Street Shadow Analysis. Prepared for Maximus Real Estate Partners. November.

¹⁷ Avila, Peter, 2014. Telephone record of communication between Debra Dwyer, Planning Department staff, and Peter Avila, Principal, Marshall Elementary School. November 20.

As shown in Table 4.B-3, the Proposed Project would reduce the annual available sunlight on the Playground by approximately 22 percent, resulting in approximately 44 percent of the Playground being shaded annually (compared with 22 percent under existing conditions). The Proposed Project would increase the shadow load on the Playground by 11,785,129 sfh, resulting in a total shadow load of 23,846,259 sfh. As described in detail below, a substantial portion of the Playground would be shaded by the Proposed Project (new shadow) during the morning through afternoon hours in the winter, with lesser shading in the autumn and spring, and minor shading in the summer.

Table 4.B-3
Shadow Load on Marshall Elementary School

	Available Sunlight	Existing Shadow Load	New Shadow Load from Proposed Project	Total Shadow Load with Proposed Project
Playground				
Square foot hours	54,615,706	12,061,131	11,785,129	23,846,259
Percentage of TAAS	100	22.08	21.57	43.66
Outdoor Learning Area				
Square foot hours	9,592,307	6,022,990	17,286	6,040,276
Percentage of TAAS	100	62.79	0.18	62.97
Note: TAAS= Theoretical Available Annual Sunlight Square foot hours rounded to the nearest whole number.				

During the winter, the Proposed Project would begin to cast new shadow on the southwestern portion of the Playground by approximately 8:30 a.m. Under existing conditions, some existing shadow from the trailer in the Playground already occurs at that time. Otherwise, the Playground is sunny from just after 9:00 a.m. until just after 1:00 p.m. The Proposed Project's new shadow would increase shadow on the Playground throughout the morning, moving west to east toward Capp Street; most of the Playground would be shaded by the Proposed Project by 2:00 p.m., except for a small area on the northeastern corner. The new shadow created by the Proposed Project would start to diminish in the afternoon as it is replaced by existing shadows from the buildings to the west. By approximately 3:00 p.m., the Playground would be half shaded by new shadow from the Proposed Project, and half by the existing buildings. On December 20, the largest shadow cast by the Proposed Project on the Playground, covering approximately 74 percent of the overall Playground surface area (approximately 10,826 square feet) (see Figures 4.B-4 and 4.B-5), would occur at 2:15 p.m. At that time, the remaining 26 percent of the Playground surface area would already be shaded by existing buildings. Under existing conditions, the maximum shadow on December 20, covering approximately 74 percent of the Playground, occurs at 3:54 p.m. As the season transitions from winter to summer, the Proposed Project would cast less and less shadow on the Playground. By summer, the shadow cast on the Playground by the Proposed Project would be minimal, and would occur along the property line between the project site and the Playground.



Source: CADP, 2015

DETAIL OF MARSHALL ELEMENTARY SCHOOL PLAYGROUND LAYOUT

1979 Mission Street Project
San Francisco, California

FIGURE 4.B-3





9:00am

- ① Northeast BART Plaza ③ Marshall Elementary School Outdoor Learning Area
- ② Southwest BART Plaza ④ Marshall Elementary School Playground



11:00am



Not to Scale

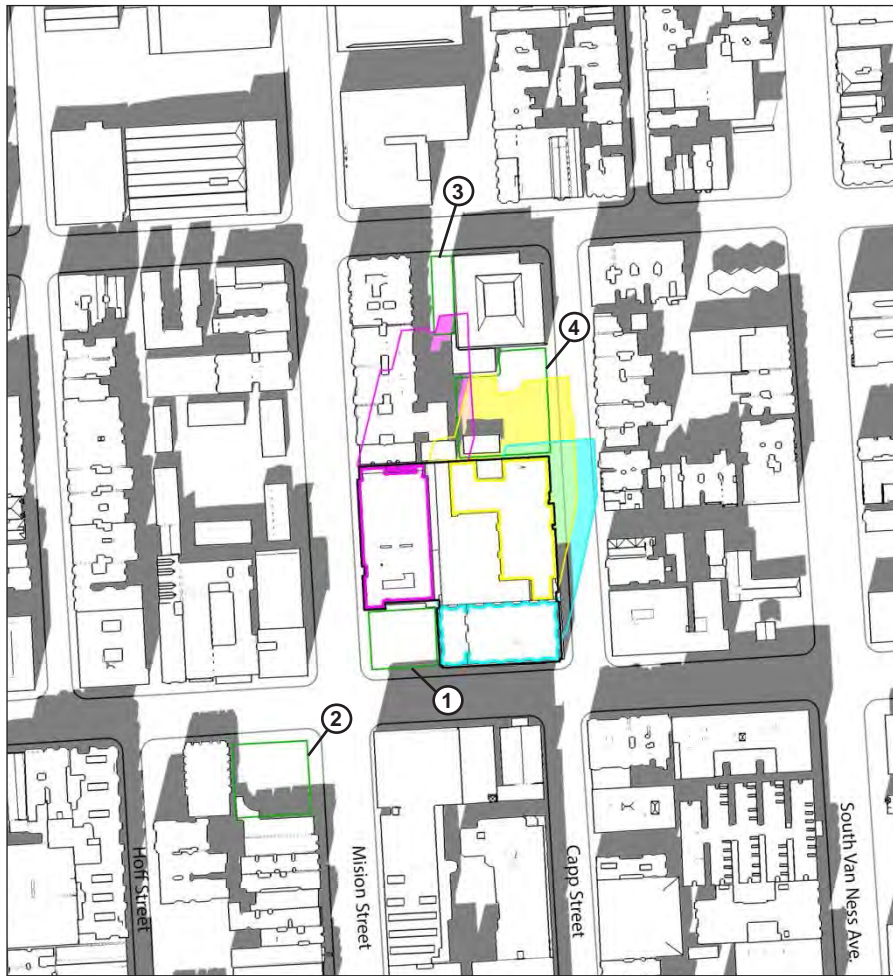
Source: CADP, 2015.

- | | |
|---------------------------------------|--|
| Mission Street Building | Mission and Capp Street Buildings New Combined Shadows |
| Mission Street Building New Shadows | Capp and Sixteenth Street Buildings New Combined Shadows |
| Sixteenth Street Building | Sixteenth and Mission Street Buildings New Combined Shadows |
| Sixteenth Street Building New Shadows | Mission, Capp, and Sixteenth Street Buildings New Combined Shadows |
| Capp Street Building | Existing Shadows |
| Capp Street Building New Shadows | |

**PROJECT SHADOW
AT 9:00 AM AND 11:00 AM
ON DECEMBER 20 (WINTER)**

1979 Mission Street Project
San Francisco, California

FIGURE 4.B-4



1:00pm

- ① Northeast BART Plaza
- ② Southwest BART Plaza
- ③ Marshall Elementary School Outdoor Learning Area
- ④ Marshall Elementary School Playground



3:00pm



Not to Scale

Source: CADP, 2015.

- | | |
|---|--|
| Mission Street Building | Mission and Capp Street Buildings New Combined Shadows |
| Mission Street Building New Shadows | Capp and Sixteenth Street Buildings New Combined Shadows |
| Sixteenth Street Building | Sixteenth and Mission Street Buildings New Combined Shadows |
| Sixteenth Street Building New Shadows | Mission, Capp, and Sixteenth Street Buildings New Combined Shadows |
| Capp Street Building | Existing Shadows |
| Capp Street Building New Shadows | |

**PROJECT SHADOW
AT 1:00 PM AND 3:00 PM
ON DECEMBER 20 (WINTER)**

1979 Mission Street Project
San Francisco, California

FIGURE 4.B-5

During the summer, the Proposed Project would not cast any shadow on the Playground from sunrise until approximately 10:00 a.m., and would cast minimal new shadow on the Playground's southern boundary in the morning, including a small southern section of the turf field. The Proposed project would continue to cast minimal amounts of new shadow along the southern boundary through the day, while the rest of the Playground would be largely sunny throughout this time. By 5:00 p.m., the Proposed Project would not cast any new shadow on the Playground. However, shadows from existing buildings to the west would begin to encroach on and would completely shade the Playground just after 7:00 p.m. On June 21, the Proposed Project would cast the largest shadow, covering approximately 7 percent (approximately 1,095 square feet) of the Playground surface area, at 1:15 p.m., when approximately 2 percent of the Playground surface area would already be shaded by existing buildings¹⁸ (see Figures 4.B-6 and 4.B-7). Under existing conditions, the maximum shadow on June 21 covers approximately 16 percent of the Playground and occurs at 4:15 p.m. As the season transitions from summer to autumn, the Playground would experience increasing amounts of new shadow from the Proposed Project throughout the day.

During the autumn and spring, the Playground would experience a small amount of new shadow from the Proposed Project along its southern portion, in the southern area of the turf field, and in portions of the foursquare game area. Starting at 8:00 a.m., the Proposed Project would cast a small amount of shadow on the Playground. The new shadow caused by the Proposed Project would increase slowly throughout the day along the southern portion of the Playground. On September 20 and on March 22, the shadow would peak at approximately 4:15 p.m., when the Proposed Project would cast shadow on approximately 31 percent of the Playground surface area (approximately 4,524 square feet), and when approximately 34 percent of the Playground surface area would already be shaded by existing buildings.

After 4:15 p.m., the new shadow cast by the Proposed Project would begin to diminish, while the Playground would increasingly be shaded by the existing buildings to the west. The Playground would be entirely shaded at just after 6:00 p.m., by the existing buildings to the west. As the season transitions from autumn to winter, the Playground would experience increasing amounts of new shadow from the Proposed Project throughout the day (see Figures 4.B-8 and 4.B-9).

Summary. The shadow analysis shows that shadow cast by the Proposed Project would have the greatest impact on the Playground in the winter, and would cast substantial shadow throughout the day. Only the northeastern corner of the Playground would remain sunny until 2:00 p.m. The maximum new shadow cast by the Proposed Project would cover approximately 74 percent of the Playground surface area on December 20 at 2:15 p.m., when the remaining 26 percent of the Playground surface area would already be shaded by existing buildings. Under existing conditions, the maximum shadow on December 20 covers approximately 74 percent of the Playground and occurs at 3:54 p.m.

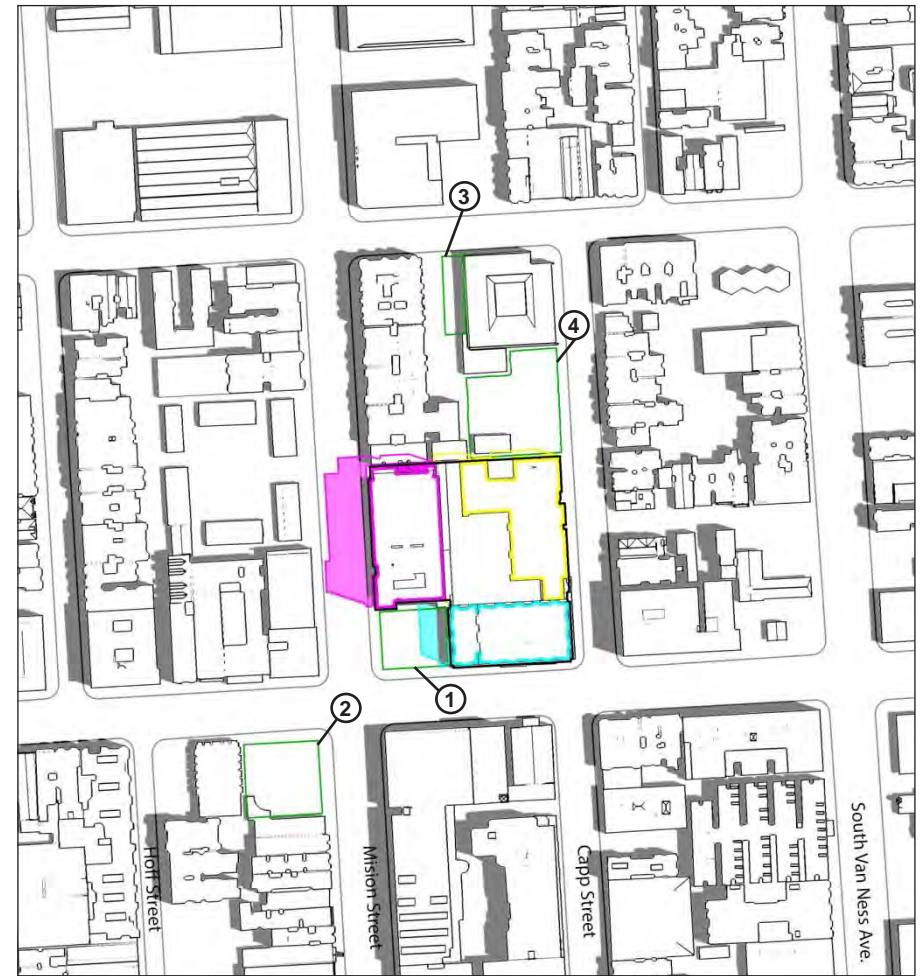
Following construction of the Proposed Project, during the winter the Playground would be mostly shaded from sunrise until approximately 2:30 p.m., when it would be fully shaded until sunset. Under existing conditions, in the winter the Playground would be mostly sunny from 9:00 a.m. until just after 1:00 p.m., approximately half shaded by 3:00 p.m., and mostly shaded by 4:00 p.m. until sunset. Therefore, with the Proposed Project, the Playground would be largely shaded throughout the day, compared with the approximately 5 to 6 hours of sunlight it receives under existing conditions.

¹⁸ Ibid.



9:00am

- ① Northeast BART Plaza
- ② Southwest BART Plaza
- ③ Marshall Elementary School Outdoor Learning Area
- ④ Marshall Elementary School Playground



11:00am



Not to Scale

Source: CADP, 2015.

- | | |
|---|--|
| Mission Street Building | Mission and Capp Street Buildings New Combined Shadows |
| Mission Street Building New Shadows | Capp and Sixteenth Street Buildings New Combined Shadows |
| Sixteenth Street Building | Sixteenth and Mission Street Buildings New Combined Shadows |
| Sixteenth Street Building New Shadows | Mission, Capp, and Sixteenth Street Buildings New Combined Shadows |
| Capp Street Building | Existing Shadows |
| Capp Street Building New Shadows | |

**PROJECT SHADOW
AT 9:00 AM AND 11:00 AM
ON JUNE 21 (SUMMER)**

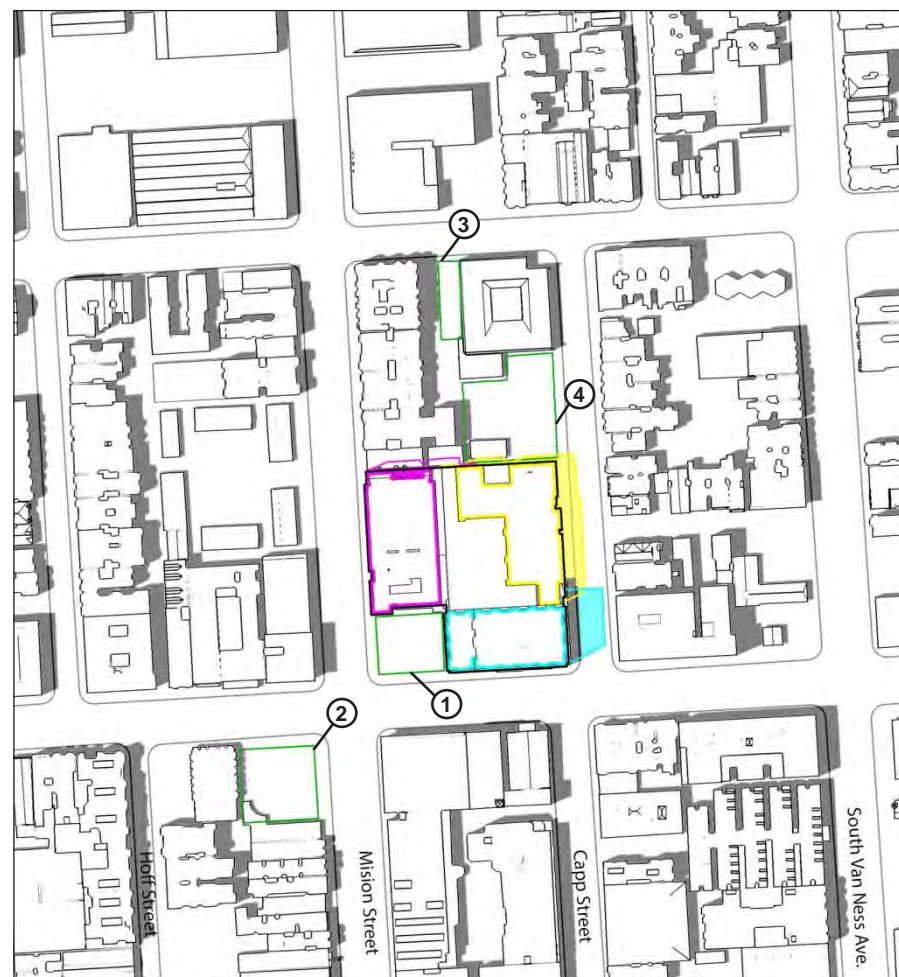
1979 Mission Street Project
San Francisco, California

FIGURE 4.B-6



1:00pm

- ① Northeast BART Plaza
- ② Southwest BART Plaza
- ③ Marshall Elementary School Outdoor Learning Area
- ④ Marshall Elementary School Playground



3:00pm



Not to Scale

Source: CADP, 2015.

- | | |
|---------------------------------------|--|
| Mission Street Building | Mission and Capp Street Buildings New Combined Shadows |
| Mission Street Building New Shadows | Capp and Sixteenth Street Buildings New Combined Shadows |
| Sixteenth Street Building | Sixteenth and Mission Street Buildings New Combined Shadows |
| Sixteenth Street Building New Shadows | Mission, Capp, and Sixteenth Street Buildings New Combined Shadows |
| Capp Street Building | Existing Shadows |
| Capp Street Building New Shadows | |

**PROJECT SHADOW
AT 1:00 PM AND 3:00 PM
ON JUNE 21 (SUMMER)**

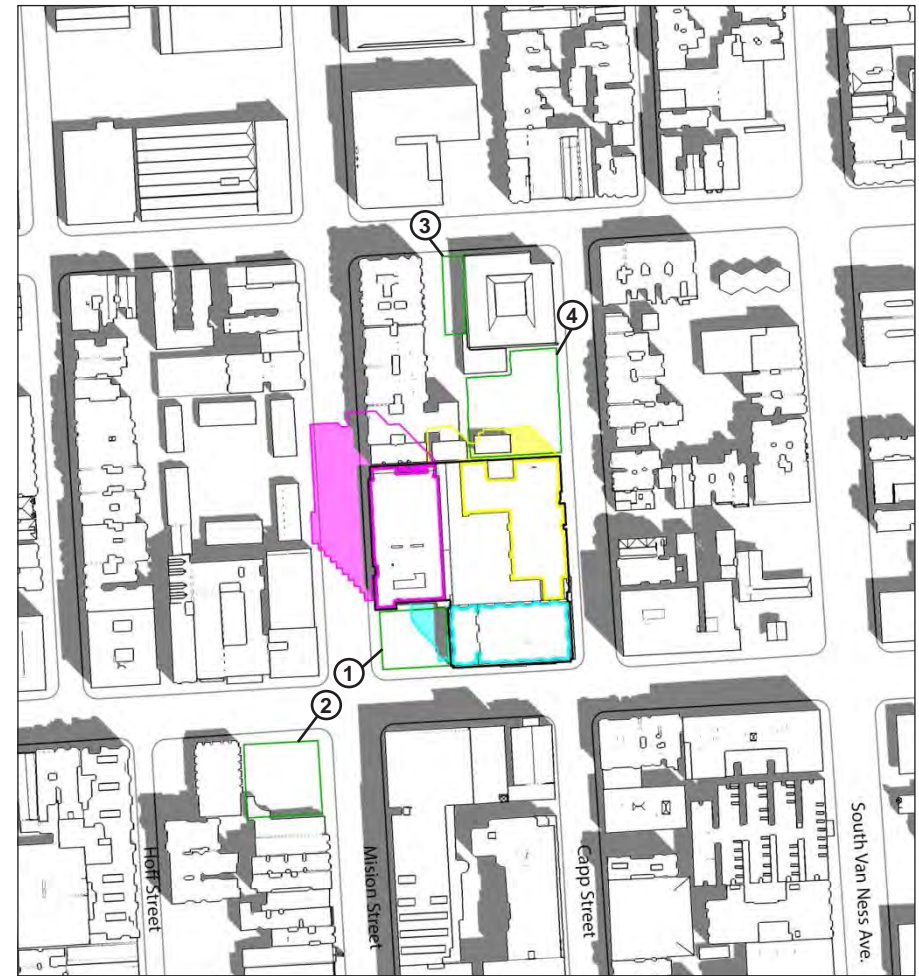
1979 Mission Street Project
San Francisco, California

FIGURE 4.B-7



9:00am

- ① Northeast BART Plaza
- ② Southwest BART Plaza
- ③ Marshall Elementary School Outdoor Learning Area
- ④ Marshall Elementary School Playground



11:00am



Not to Scale

Source: CADP, 2015.

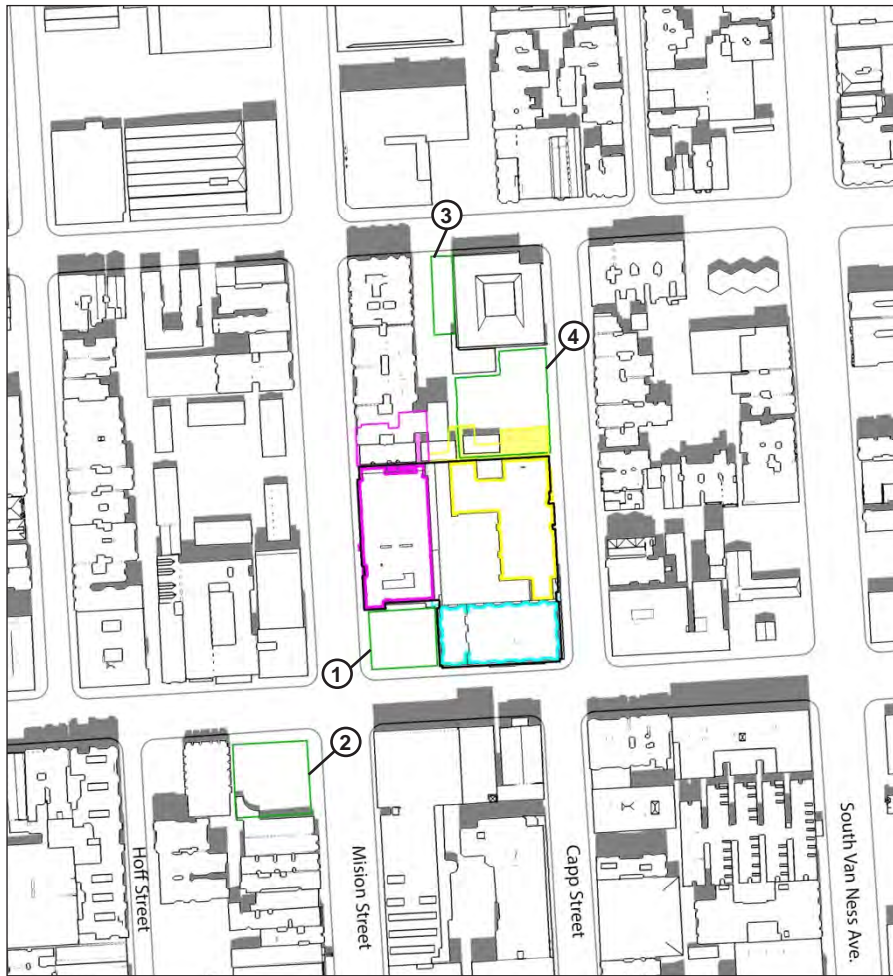
- | | |
|---------------------------------------|--|
| Mission Street Building | Mission and Capp Street Buildings New Combined Shadows |
| Mission Street Building New Shadows | Capp and Sixteenth Street Buildings New Combined Shadows |
| Sixteenth Street Building | Sixteenth and Mission Street Buildings New Combined Shadows |
| Sixteenth Street Building New Shadows | Mission, Capp, and Sixteenth Street Buildings New Combined Shadows |
| Capp Street Building | Existing Shadows |
| Capp Street Building New Shadows | |

Note: March 22 Similar (Spring)

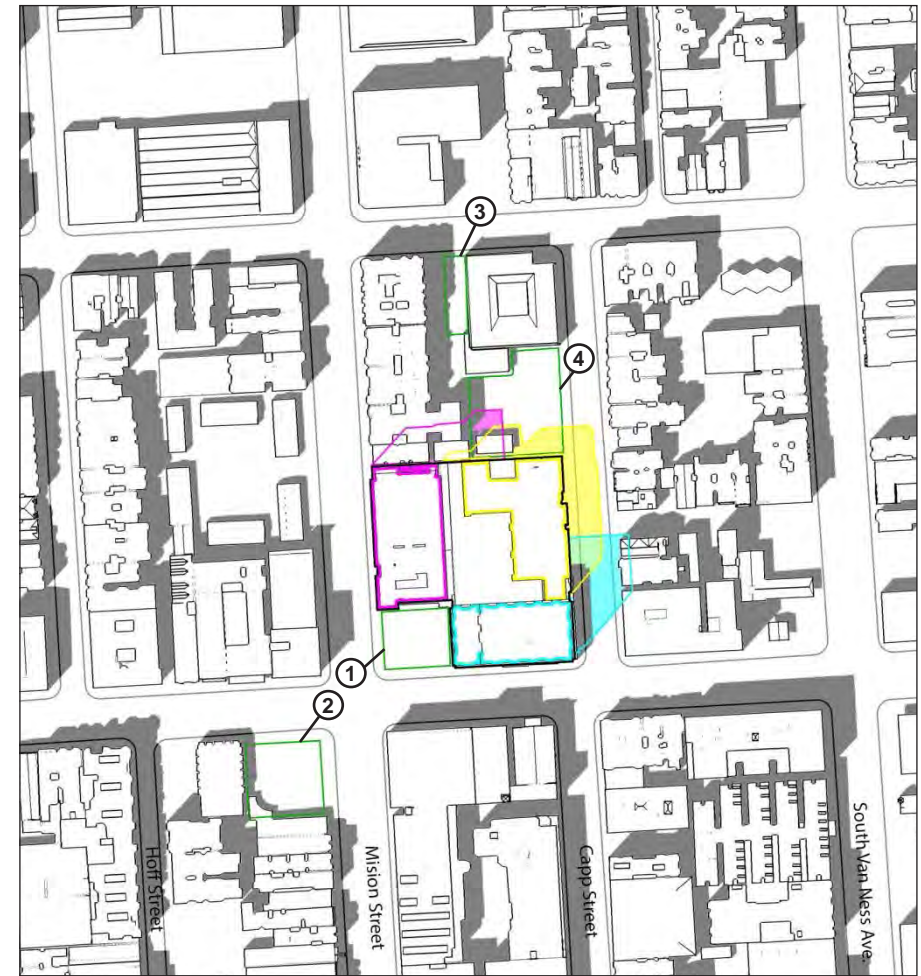
PROJECT SHADOW AT 9:00 AM AND 11:00 AM ON SEPTEMBER 20 (AUTUMN)

1979 Mission Street Project
San Francisco, California

FIGURE 4.B-8



1:00pm



3:00pm

- ① Northeast BART Plaza
- ② Southwest BART Plaza
- ③ Marshall Elementary School Outdoor Learning Area
- ④ Marshall Elementary School Playground



Not to Scale

Source: CADP, 2015.

- Mission Street Building
- Mission Street Building New Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth and Mission Street Buildings New Combined Shadows
- Mission, Capp, and Sixteenth Street Buildings New Combined Shadows
- Existing Shadows

Note: March 22 Similar (Spring)

PROJECT SHADOW AT 1:00 PM AND 3:00 PM ON SEPTEMBER 20 (AUTUMN)

1979 Mission Street Project
San Francisco, California

FIGURE 4.B-9

During the summer, under the Proposed Project, the Playground would experience minor shadow throughout the day along its southern boundary. However, similar to existing conditions, most of the Playground would remain sunny throughout the day under the Proposed Project. On June 21, the maximum new shadow cast by the Proposed Project would cover approximately 7 percent of the overall Playground surface area at 1:15 p.m. Under existing conditions, the maximum shadow covers approximately 16 percent of the Playground and occurs at 4:15 p.m. along its western boundary. Following construction of the Proposed Project, the Playground would be largely sunny for approximately 10 hours a day, similar to existing conditions.

During the spring and autumn, the Playground would experience increasing shadow cast by the Proposed Project throughout the day. On September 20 (and March 22), the maximum new shadow cast by the Proposed Project would cover the southern portion at approximately 31 percent of the overall Playground surface area at 4:15 p.m. Under existing conditions, the maximum shadow covers approximately 94 percent of the Playground, and occurs at 6:09 p.m. Following construction of the Proposed Project, the Playground would be largely sunny for approximately 6 hours a day, compared with approximately 7 hours a day under existing conditions.

The Playground is used throughout the day for physical education classes, recess, and lunch periods. During these periods of time, students and teachers are using the Playground for extended periods of time. Therefore, the sunlight access to the Playground is one of the characteristics that partially determine the comfort level of students and teachers at these times. Under the Proposed Project, the Playground would be mostly or fully shaded during the entire range of school activities in the winter and partially shaded in the autumn and spring. For the above reasons, the Proposed Project's new shadow would adversely affect the Playground, and would be significant.

The shadow study shows that the Proposed Project would create new shadow that would substantially shade the Playground, which would adversely affect school activities.

There is no feasible available mitigation measure for the Proposed Project's impact on the Playground. Any potential mitigation measure would fundamentally alter the Project's basic design. Therefore, shadow impacts on the Playground would be significant and unavoidable.

Marshall Elementary School Outdoor Learning Area – New Shadow

The Marshall Elementary School Outdoor Learning Areas provides a garden and classroom space, and is typically in use from 9:00 a.m. through 5:00 p.m., 5 days per week (Monday through Friday). As shown in Table 4.B-3, the Proposed Project would reduce the annual available sunlight on the Marshall Elementary School outdoor learning area by approximately 0.18 percent, resulting in approximately 63 percent of the outdoor learning area being shaded annually. This represents a minor incremental increase in the shadow experienced by the outdoor learning area annually. Under existing conditions, the outdoor learning area is shaded in the mornings and afternoons, and sunny around mid-day throughout the year. The Proposed Project would increase the new shadow load on the outdoor learning area by 17,286 sfh, resulting in a total shadow load of 6,040,276 sfh on a portion of the outdoor learning area during the early to mid-afternoon from late autumn to early winter, with no new shadow cast during the rest of the year.

During the winter, the Proposed Project would cast new shadow on the outdoor learning area from approximately 12:15 p.m. through 2:00 p.m. On December 20, the largest new shadow cast by the Proposed Project on the outdoor learning area would occur at 12:45 p.m., covering approximately 18 percent (459 square feet) of the outdoor learning area (see Figures 4.B-4 and 4.B-5). As the season

transitions from winter to summer, the outdoor learning area would no longer experience new shadow from the Proposed Project (see Figures 4.B-6 and 4.B-7).

Summary. Impacts from the Proposed Project's new shadow on the outdoor learning area would be relatively minor. Although portions of the area would be shadowed by the Proposed Project in the early afternoon during the winter, the area that would be shaded by the Proposed Project would be minor and of short duration. Uses in the outdoor learning area as a garden and classroom space would not be substantially affected.

For the above reasons, the Proposed Project would not create new shadow in a manner that would substantially affect the outdoor learning area. Therefore, the Proposed Project's impacts on the Marshall Elementary School outdoor learning area would be less than significant, and no mitigation measures are necessary.

Impact WS-3: The Proposed Project would not create new shadow in a manner that would substantially affect the 16th Street Mission BART Station plazas. (*Less than Significant*)

The Proposed Project's shadow impacts on the BART Plazas are described below for each plaza.

Northeast BART Plaza – New Shadow

As shown in Table 4.B-4, the Proposed Project would reduce the annual available sunlight on the Northeast BART Plaza by approximately 8 percent, resulting in approximately a total of 32 percent of the plaza being shaded annually (compared with 24 percent under existing conditions), which is a low to moderate increase of the shadow. The Proposed Project would increase the shadow load on the plaza by 1,685,083 sfh, resulting in a total shadow load of 6,914,865 sfh. The Proposed Project would cast new shadow on a portion of the plaza generally during part of the morning throughout the year, with the greatest shadow in the summer, and minor shadow in the winter.

Table 4.B-4
Shadow Load on 16th Street BART Station – Northeast Plaza

	Available Sunlight	Existing Shadow Load	New Shadow Load from Proposed Project	Total Shadow Load with Proposed Project
Square foot hours	21,663,099	5,229,783	1,685,083	6,914,865
Percentage of TAAS	100	24.14	7.78	31.92
Note: TAAS= Total Annual Available Sunlight Square foot hours rounded to the nearest whole number.				

During the winter, the Northeast BART Plaza would experience only a small area of new shadow from the Proposed Project from 9:45 a.m. through 12:00 p.m. The largest shadow cast by the Proposed Project on December 20 would occur at 11:30 a.m., covering approximately 2 percent or approximately 135 square feet of the plaza area. After 12:00 p.m., the Proposed Project would not cast any new shadow on the Northeast BART Plaza (see Figures 4.B-4 and 4.B-5). As the season transitions from winter to summer, the Northeast BART Plaza would experience more new shadow over time from the Proposed Project starting in the late morning, and lasting until the early afternoon. In addition, a minor amount of

new shadow would begin to be cast on the plaza by the Proposed Project in the evening as the season transitions to summer.

During the summer, the greatest amount of shading from the Proposed Project would occur. From 7:30 a.m. to 9:00 a.m., the plaza is partially shaded by the existing building directly east of the plaza; the Proposed Project would cast new shadow on the unshaded western portion of the plaza, causing the plaza to be fully shaded during this time. On June 21, the largest shadow cast by the Proposed Project would occur at 9:15 a.m., covering approximately 64 percent of the Northeast BART Plaza (approximately 3,726 square feet). The Project's shadow would start to recede eastward, and the plaza would be in sunlight at 1:00 p.m. By 1:00 p.m., all new shadows from the Project would be gone, and the entire Northeast BART Plaza would be sunny until approximately 6:00 p.m. After 6:00 p.m., a minor amount of shadow would be cast on the plaza by the Proposed Project (see Figures 4.B-6 and 4.B-7). As the season transitions from summer to autumn, new Project shadow on the Northeast BART Plaza would decrease over time in the early morning, but would be similar to existing conditions in the late morning. The very minor amount of shadow cast on the plaza by the Proposed Project in the evening would disappear by late summer.

During the autumn (and spring), starting around 9:00 a.m., new shadows from the Proposed Project would fall on the northwestern portion of the Northeast BART Plaza, and move to the northeastern portion of the plaza by 11:00 a.m. On September 20, the largest shadow cast by the Proposed Project on the Northeast BART Plaza would occur at 9:45 a.m., covering approximately 29 percent of the plaza (approximately 1,677 square feet). After 9:45 a.m., new shadow from the Proposed Project would begin to diminish. By 12:45 p.m., no further new shadow would occur during the day due to the Proposed Project (see Figures 4.B-8 and 4.B-9). As autumn transitions to winter, the Northeast BART Plaza would experience decreasing new shadow from the Proposed Project in the morning. No new shadows would be cast by the Proposed Project on the Northeast BART Plaza by approximately mid-day in either autumn or winter.

Summary. As described above, in winter, Project shadow would be limited to the morning. On December 20, the Project shadow would cover approximately 2 percent of the Northeast BART Plaza area at its maximum. The plaza would be largely sunny for approximately 5 hours a day, generally similar to existing conditions. During the summer, the Proposed Project would cast shadow on the plaza from approximately 7:30 a.m. to 1:00 p.m., with a minor amount of shadow cast after 6:00 p.m. On June 21, it would shade approximately 68 percent of the plaza at its maximum. The plaza would be largely sunny for approximately 9 hours a day, compared with approximately 10 hours under existing conditions. During the spring and autumn, the Project would cast shadow from approximately 8:00 a.m. to 1:00 p.m. On September 20 (and March 22), it would shade approximately 29 percent of the plaza at its maximum. The plaza would be largely sunny for approximately 6 hours a day in the autumn (and spring), similar to existing conditions.

Shadow cast by the Proposed Project would primarily impact the Northeast BART Plaza in the mornings from late spring until early autumn. During weekdays, the Northeast BART Plaza experiences peak use from about 11:00 a.m. to 1:00 p.m., and portions of the plaza, including some of the seating areas, would be shaded by the Proposed Project during this time. However, users congregate in the Northeast BART Plaza to access the BART trains through the BART escalators, stairs, and elevator, and wait for the transit buses and shuttle services that pass nearby. Additional shadow resulting from the Proposed Project would not substantially impact the uses of the Northeast BART Plaza.

For the above reasons, the Proposed Project would not create new shadow that would adversely affect the use of the Northeast BART Plaza. Therefore, the Proposed Project's shadow impacts on the Northeast BART Plaza would be less than significant, and no mitigation measures are necessary.

Southwest BART Plaza – New Shadow

As shown in Table 4.B-5, the Proposed Project would reduce the annual available sunlight on the Southwest BART Plaza by approximately 0.19 percent, resulting in approximately 32 percent of the plaza being shaded annually. This would result in a largely imperceptible change in shading of the plaza annually. The Proposed Project would increase the shadow load on the plaza by 62,330 sfh, resulting in a total shadow load of 10,392,412 sfh. A portion of the plaza would be shaded by the Proposed Project (new shadow) during the early morning from late spring through late summer, with no new shadow cast during the rest of the year.

Table 4.B-5
Shadow on 16th Street BART Station – Southwest Plaza

	Available Sunlight	Existing Shadow Load	New Shadow Load from Project	Total Shadow Load with Project
Square foot hours	32,295,798	10,330,082	62,330	10,392,412
Percentage of TAAS	100	31.99	0.19	32.18
Note: TAAS= Total Annual Available Sunlight Square foot hours rounded to the nearest whole number.				

The Proposed Project would not cast new shadow on the Southwest BART Plaza during the winter (see Figures 4.B-4 and 4.B-5). As the season transitions from winter to summer, the Southwest BART Plaza would begin to experience new shadow from the Proposed Project for a brief time period early in the morning before 7:00 a.m.

During the summer, the Southwest BART Plaza would experience shadows from the Proposed Project in the early morning. Between approximately 6:00 a.m. and 7:00 a.m., the Proposed Project would shadow the northern portion of the plaza. By 7:15 a.m., there would be no new shadow from the Project on the Southwest BART Plaza. On June 21, the largest shadow cast by the Proposed Project on the Southwest BART Plaza would occur at 6:46 a.m., covering approximately 44 percent (3,810 square feet) of the overall Southwest BART Plaza area (see Figures 4.B-6 and 4.B-7). As the season transitions from summer to autumn, the Southwest BART Plaza would no longer experience new shadow from the Proposed Project in the early morning. In autumn, the Proposed Project would not cast new shadow on the plaza (see Figures 4.B-8 and 4.B-9).

Summary. Shadow cast by the Proposed Project would impact the Southwest BART Plaza in the early mornings from late spring until late summer. During the summer, the Proposed Project would cast shadow on the plaza from approximately 6:00 a.m. to 7:00 a.m., shading approximately 44 percent of the plaza at its maximum. The plaza would be largely sunny for approximately 10 hours during the summer, slightly less than under existing conditions. The Proposed Project would not cast any new shadow on the Southwest BART Plaza in the autumn, winter, or early spring.

Impacts from the Proposed Project's new shadow on the plaza would be minor. Although portions of the plaza, including some of the seating areas, could be shadowed by the Proposed Project in the early morning, the Southwest BART Plaza is mostly used to access the BART station escalators, stairs, and the public restroom, and to wait for the transit buses and shuttle services that pass nearby. The peak use of the plaza does not occur during the early morning hours. Therefore, the small amount of additional shadow that would result from the Proposed Project would not substantially affect this usage. For the above reasons, the Proposed Project would not create new shadow that would substantially affect the Southwest BART Plaza. Therefore, the Proposed Project's impacts on the Southwest BART Plaza would be less than significant, and no mitigation measures are necessary.

d. Cumulative Impacts

Impact C-WS-2: The Proposed Project would have a cumulatively considerable contribution to significant cumulative shadow impacts, substantially affecting outdoor recreation facilities and open space. (*Significant and Unavoidable*)

The geographic scope for cumulative shadow impacts includes the area within an approximately 2 block radius of the project site, because buildings in this area could affect the shadows in the project vicinity.

Other reasonably foreseeable development projects in the immediate project vicinity are listed in Table 4.A-1 under Approach to Cumulative Analysis. However, none of these projects would cast a shadow on the open space areas affected by the Proposed Project (i.e., the 16th Street Mission BART Station plazas or the Playground or outdoor learning area). Existing buildings cast shadow on the open space affected by the Proposed Project. Existing buildings shade 22.08 percent of the Playground and 62.79 percent of the outdoor learning area. The Northeast and Southwest BART Plazas are shaded by existing buildings by 24.14 percent and 31.99 percent, respectively. As described above under Impact WS-2, the Proposed Project would result in a significant and unavoidable impact to the Playground. Cumulative shadow impacts from past and present projects and the Proposed Project are assumed to be significant.

As described above under Impact WS-2, the greatest amount of Playground shading would occur during the winter, when implementation of the Proposed Project would cause the Playground to be largely shaded throughout the day, in comparison with the approximately 6 hours of sunlight it receives under existing conditions. In addition, during the spring and autumn, the Playground would receive approximately 1 hour less of sunlight (total 6 hours a day), in comparison with 7 hours a day under existing conditions. The Playground would be shaded by the Proposed Project during peak use times, including during recess and lunch, which would substantially affect the use of the Playground. On an annual basis, the Proposed Project would result in 21.57 percent new shadow at the Playground. The Proposed Project's contribution to the cumulative shadow impacts at the Playground would be cumulatively considerable, and cumulative impacts would be significant. There are no feasible mitigation measures, resulting in a cumulatively significant and unavoidable impact.

The Proposed Project, in combination with other past and present projects, would result in approximately 63 percent of the outdoor learning area being shaded annually. This would be a cumulatively significant impact. However, the Proposed Project would add only 0.18 percent new shadow at the outdoor learning area. As described above under Impact WS-2, this contribution would be minor, and this small addition of shadow would not be cumulatively considerable. Therefore, the Proposed project's contribution to cumulative shadow impacts at the outdoor learning area would be less than significant.

The Proposed Project, in combination with other past and present projects, would result in approximately 32 percent of the Northeast Plaza being shaded annually, and a similar percentage of the Southwest Plaza being shaded annually. The BART Plazas are mostly used to access the BART station escalators and elevator and the public restroom, and to wait for the transit buses and shuttle services that pass nearby. Cumulative shadow impacts would not alter the uses of the BART Plazas and would not be significant. The Proposed Project's contribution to cumulative shadow impacts would be 7.78 percent at the Northeast Plaza and 0.19 percent shadow at the Southwest BART Plaza. As described above under Impact WS-3, the Proposed Project would not create new shadow in a manner that would substantially affect either of the 16th Street Mission BART Plazas. Therefore, cumulative shadow impacts of the Proposed Project at the BART Plazas would be less than significant.

C. Geology and Soils

1. Introduction

This section describes the geologic and seismic conditions of the project site and its vicinity, and evaluates the potential for the Proposed Project to result in significant impacts related to exposing people or structures to significant, adverse geologic hazards, soils, and/or seismic conditions. The analysis in this section is based on the geotechnical investigation prepared for the Proposed Project by Treadwell & Rollo.¹ Potential impacts are described and evaluated, and appropriate mitigation measures are identified, where necessary. The impacts discussion also considers whether the Proposed Project, in combination with additional reasonably foreseeable development, would contribute to cumulative environmental impacts related to geology and soils.

2. Environmental Setting

a. Regional Geology

The project site is on the San Francisco Peninsula in the Coast Ranges geomorphic province, which extends northward from the Transverse Ranges in Santa Barbara County to beyond the Oregon border. This geologic region consists of northwest trending mountain ranges and parallel elongated valleys. Most of the valleys are associated with folds or differential erosion along faults that are generally parallel to the San Andreas Fault. In the Coast Ranges, older, consolidated rocks are characteristically exposed in the mountains and are buried beneath younger, unconsolidated alluvial sediments in the valleys. In the coastal lowlands adjacent to San Francisco Bay, the younger sediments commonly interfinger² with marine deposits. The major geographic features in the vicinity include San Francisco Bay and the Diablo Range to the east and north, the Santa Cruz Mountains to the south and west, and the Santa Clara Valley to the south and east.

The principal basement rock on the San Francisco Peninsula is the Franciscan Complex, which commonly consists of greenstone, sandstone, serpentinite, chert, and mélange (a mixture of lithologies typically in a sheared, clay rich matrix). On the San Francisco Peninsula, the Franciscan Complex is locally overlain by Tertiary, Quaternary, and Holocene marine and non-marine sedimentary deposits of variable degrees of cementation or consolidation. In this area, these are assigned to the Santa Clara Formation and the Merced Formation. Unconsolidated geological materials encountered in the area include artificial fill, colluvium, alluvium, and alluvial fans.

The project site is located in a seismically active geologic region near the boundary between two major tectonic plates: the Pacific Plate to the southwest, and the North American Plate to the northeast. In California, this plate boundary begins north of the Gulf of California near the Mexican border, and traverses much of the state before terminating off the coast of Humboldt County.

¹ Treadwell & Rollo, 2013. Geotechnical Investigation, 1979 Mission Street. Prepared for Maximus Real Estate Partners. January 30.

² Interfinger, as related to sedimentary rocks, means to change laterally from one type of rock to another in a zone where the two types form interpenetrating wedges.

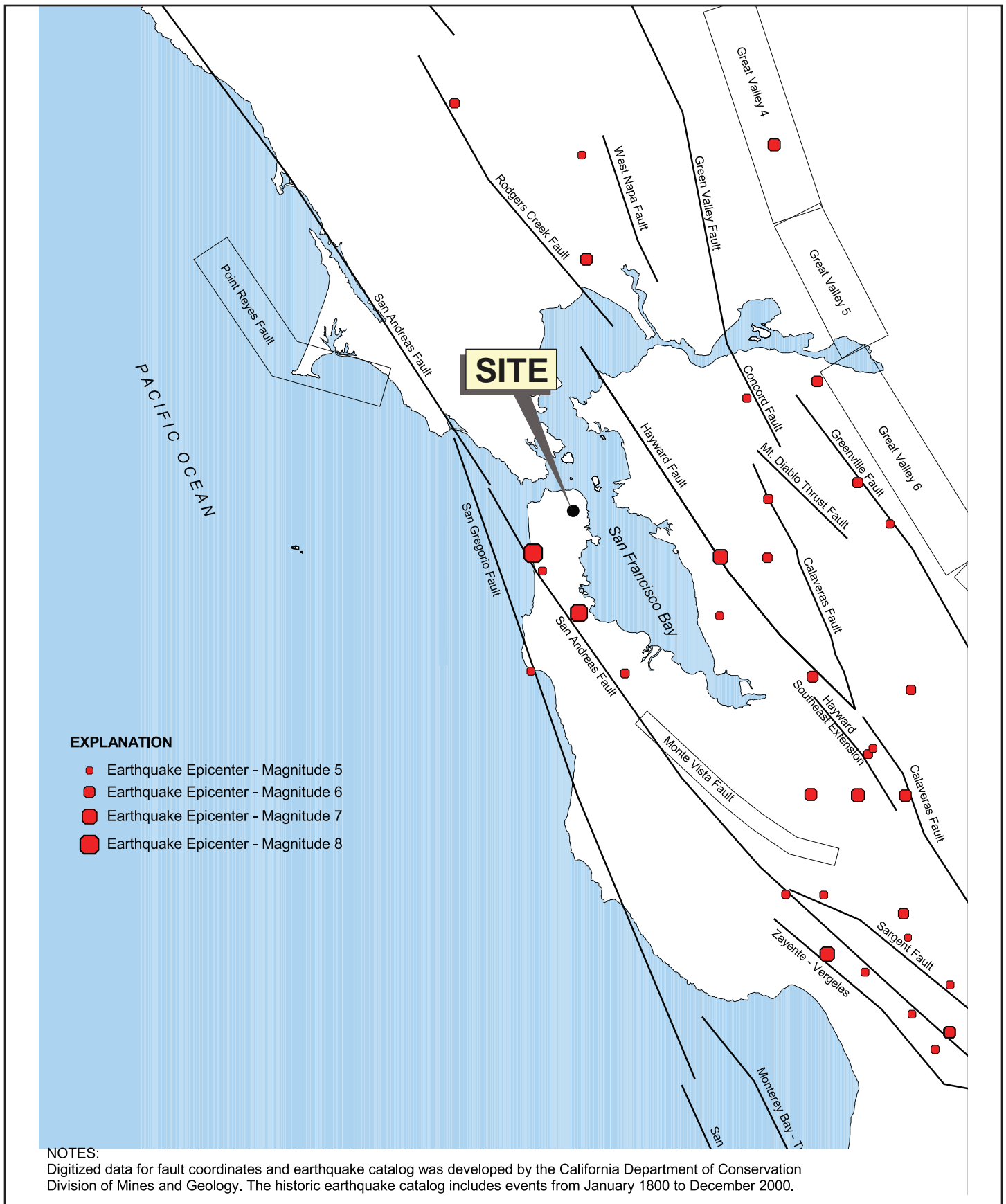
The major active faults in the San Francisco Bay area comprise a complex system of right lateral, strike slip faults known as the San Andreas Fault system. The principal active fault in the immediate project vicinity is the San Andreas Fault. Other substantial faults in the San Andreas Fault system in the San Francisco Bay area are the San Gregorio, Hayward, and Calaveras faults. Other more distant active faults in the region include the Concord-Green Valley and Greenville faults. Earthquakes occurring along these and other faults are capable of generating strong ground shaking. Figure 4.C-1 shows the regional faults in the vicinity of the project site, and Table 4.C-1 lists the active faults in the San Francisco Bay Area.

Table 4.C-1
Regional Faults and Seismicity

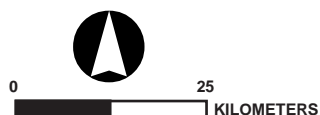
Regional Faults and Seismicity Fault Name	Distance (kilometers)	Direction from Site	Mean Characteristic Maximum Moment Magnitude
San Andreas – 1906 Rupture	10	West	7.9
San Andreas – Peninsula	10	West	7.2
San Andreas – North Coast South	14	West	7.5
Northern San Gregorio	16	West	7.2
Total San Gregorio	16	West	7.4
North Hayward	19	Northeast	6.5
Total Hayward	19	Northeast	6.9
Total Hayward-Rodgers Creek	19	Northeast	7.3
South Hayward	19	East	6.7
Rodgers Creek	36	North	7.0
Mt. Diablo	36	East	6.7
Total Calaveras	37	East	6.9
Monte Vista-Shannon	39	Southeast	6.8
Concord/Green Valley	40	East	6.7
Source: Treadwell & Rollo, 2013. Geotechnical Investigation, 1979 Mission Street. Prepared for Maximus Real Estate Partners. January 30.			

b. Site Geology

The southern and western sides of the project site are occupied by two retail/commercial buildings: one currently occupied by Walgreens, and the other occupied by smaller commercial uses such as a Burger King restaurant and a vacant retail space. The commercial buildings are one-story-plus-mezzanine and have a partial basement. The surface parking lot elevations range from elevation +17 to +20 feet (City and County of San Francisco datum). Test borings from the Walgreens parking lot indicate that the site is underlain by 2 to 4 feet of sandy fill that contains debris, including bricks and wood. Below the fill to a depth of about 33 feet below ground surface (bgs) are interbedded layers of alluvial deposits, consisting of loose to dense sand, stiff silt, and medium stiff to stiff clay. Below a depth of about 33 feet, very dense sand is present. Estimated groundwater depth at the project site ranges from approximately 8 to 10 feet bgs, depending on the time of year.



Source: Treadwell and Rollo, 2013.



REGIONAL FAULT MAP

1979 Mission Street Project
 San Francisco, California

FIGURE 4.C-1

c. Seismicity and Geologic Hazards

Ground shaking is the product of a specific earthquake as manifested at a particular location with specific geologic conditions. The intensity of the ground shaking (also referred to as strong ground motion) during an earthquake is dependent on the distance between a site and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the site. Other conditions being equal, earthquakes with closer epicenters or higher magnitudes produce more intense ground shaking. Geologic conditions have a substantial impact on the intensity of local ground shaking.

Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill or alluvium. The composition of underlying soils in areas relatively distant from earthquake epicenters can intensify ground shaking from specific earthquakes. For instance, locations in the San Francisco Bay Area that experienced the worst structural damage during the 1989 Loma Prieta earthquake were not those closest to the epicenter. Instead, the greatest damage was on Bay Muds and artificial fill, because those soils magnified the effects of ground shaking.

d. Surface Fault Rupture

The project site is not in an earthquake fault zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no mapped active faults are known to pass through the immediate vicinity of the project site. Therefore, the risk of ground rupture at the site is very low.

e. Ground Shaking

During a major earthquake on one of the active faults in the region, the project site would experience strong ground shaking similar to other areas of the seismically active San Francisco Bay Region. The intensity of the earthquake ground motion at the site would, as stated above, depend on the characteristics of the generating fault, distance to the earthquake epicenter, magnitude and duration of the earthquake, and specific site geologic conditions. Historically, the site has been subjected to strong ground shaking from moderate to large earthquakes on the San Andreas, Hayward, Calaveras, and San Gregorio faults, and future strong ground shaking should be expected.

f. Seismically Induced Ground Deformations

Ground deformations include liquefaction, lateral spreading, and cyclic densification. Liquefaction is a transformation of soil from a solid to a liquefied state, during which saturated soil temporarily loses strength when subjected to a buildup of excess pore water pressure, especially during earthquake induced cyclic loading. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low plasticity silt, and some low plasticity clay deposits. Lateral spreading refers to the finite, lateral displacement of sloping ground toward a free face (such as an open excavation or stream bank) as a result of pore pressure build-up or liquefaction during an earthquake. Differential compaction (cyclic densification) refers to compaction of non-saturated granular materials (sand and gravel above the groundwater table) caused by earthquake vibrations. The sandy fill and the native sand above the groundwater level are susceptible to differential compaction during a major earthquake on a nearby fault.

The project site is in an area “where historic occurrence of liquefaction, or local geological, geotechnical, or groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693 (c) would be required.” The test borings drilled on the site

indicate that interbedded layers of alluvial deposits, consisting of loose to dense sand, stiff silt, and medium stiff to stiff clay are below the fill to a depth of about 33 feet bgs. Below a depth of about 33 feet bgs, very dense sand is present to the end of the borings, at about 90 feet bgs. The geotechnical investigation indicated that these sand layers could liquefy during a strong earthquake. Should liquefaction occur, it would be localized in or adjacent to the project, because the sand layers are relatively thin and discontinuous.³ Because the risk of extensive liquefaction at the site is low, the risk of lateral spreading at the site during a strong earthquake is also low.

g. Landslides

As shown on the official State of California Seismic Hazards Zone Map for San Francisco, prepared under the Seismic Hazards Mapping Act of 1990, the project site is not in an area subject to landslides.⁴

3. Regulatory Framework

This subsection describes the pertinent state and local laws and regulations that are applicable to the Proposed Project.

a. Federal

There are no federal regulations governing geologic and seismic hazards that are applicable to the Proposed Project.

b. State

Alquist-Priolo Earthquake Fault Zoning Act

California's Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code Section 2621 et seq.), originally enacted in 1972 as the Alquist-Priolo Special Studies Zones Act, and renamed in 1994, is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults, and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in and adjacent to Earthquake Fault Zones.

Under the Alquist-Priolo Act, faults are zoned, and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the Alquist-Priolo Act as referring to approximately the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment.

³ Treadwell & Rollo, 2013. Geotechnical Investigation, 1979 Mission Street. Prepared for Maximus Real Estate Partners. January 30.

⁴ California Department of Conservation, 2000. City and County of San Francisco Seismic Hazard Zones Official Map. November 17. Available online at: http://gmw.consrv.ca.gov/shmp/download/quad/SAN_FRANCISCO_NORTH/maps/ozn_sf.pdf. Accessed November 9, 2015.

Seismic Hazards Mapping Act

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (California Public Resources Code Sections 2690-2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development in mapped Seismic Hazard Zones.

Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites in Seismic Hazard Zones until appropriate site specific geologic and/or geotechnical investigations have been carried out, and measures to reduce potential damage have been incorporated into the development plans. The San Francisco Department of Building Inspection (DBI) is the local agency empowered by the City to enforce the regulatory requirements of the Seismic Hazards Mapping Act.

California Building Code

The California Building Code (CBC), which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, egress facilities, and general building stability. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which by law is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. Local building codes may not include standards less stringent than those in the CBC.

The 2010 CBC is based on the 2009 International Building Code. In addition, the CBC contains necessary California amendments that are based on the American Society of Civil Engineers Minimum Design Standards 7-05. American Society of Civil Engineers 7-05 provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (flood, snow, wind, etc.) for inclusion in building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure, or any appurtenances connected or attached to such buildings or structures throughout California.

The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, all of which are used to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site, and ranges from SDC A (very small seismic vulnerability) to SDC E/F (very high seismic vulnerability and near a major fault). Design specifications are then determined according to the SDC.

c. Local

San Francisco Building Code

The applicable San Francisco Building Code for the Proposed Project is the 2010 San Francisco Building Code, which was in effect at the time the site or building permit was submitted. The San Francisco

Building Code consists of the 2010 CBC, the 2010 San Francisco Building Code Amendments to the 2010 CBC, the 2010 California Green Building Standards Code, and the 2010 California Residential Code. The San Francisco Building Code is implemented by DBI and is mandatory for all developments in the City. Sections of the San Francisco Building Code address geology and soils, seismic safety, foundations, soil investigations, safety of excavations, slopes on construction sites, and erosion control.

San Francisco General Plan

The goals of the Community Safety Element of the General Plan include reducing the structural and non-structural hazards to life safety and minimizing property damage resulting from future disasters. The following policies are from the Community Safety Element of the General Plan:

- Policy 1.3: Assure that new construction meets current structural and life safety standards.
- Policy 1.6: Consider site soils conditions when reviewing projects in areas subject to liquefaction or slope instability.
- Policy 1.7: Consider information about geologic hazards whenever City decisions that will influence land use, building density, building configurations, or infrastructure are made.

The Community Safety Element includes maps of potential hazard areas, including liquefaction and potential liquefaction areas.

The San Francisco Planning Code, Section 101.1(b), lists the Priority Policies for the City's General Plan. The following Priority Policy is from the City's General Plan:

- (6) That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.

Bay Area Rapid Transit District

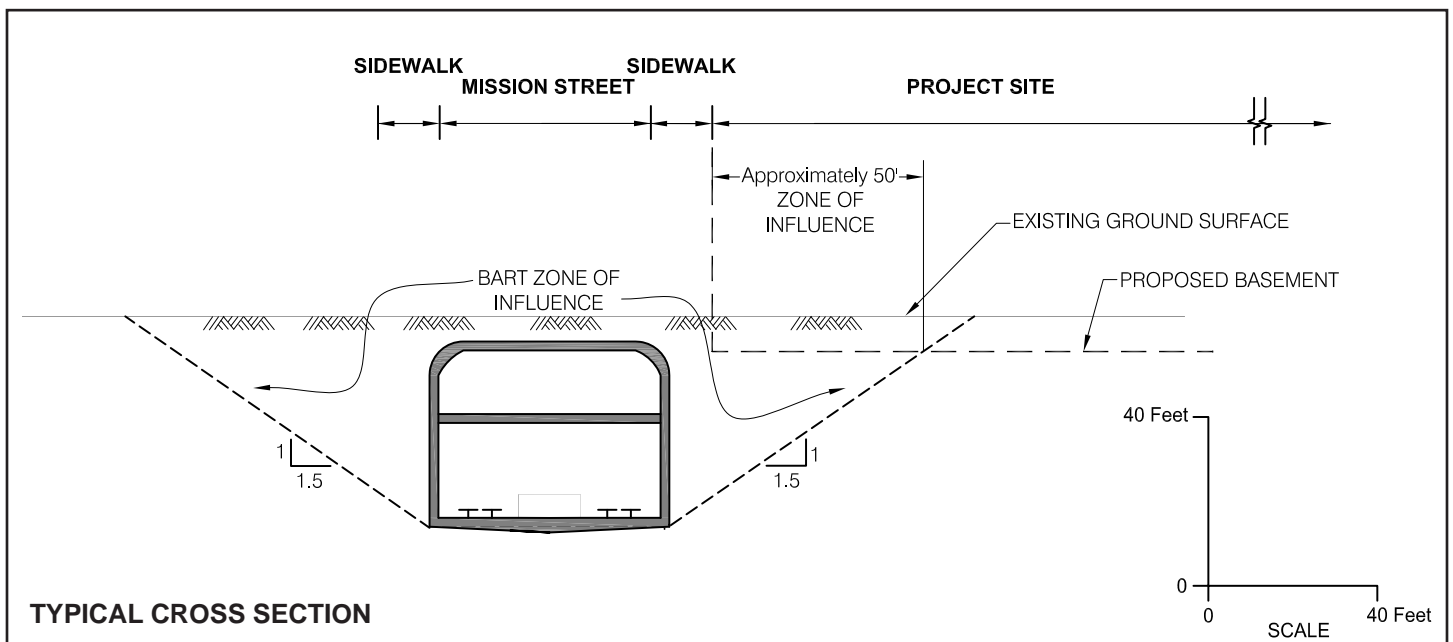
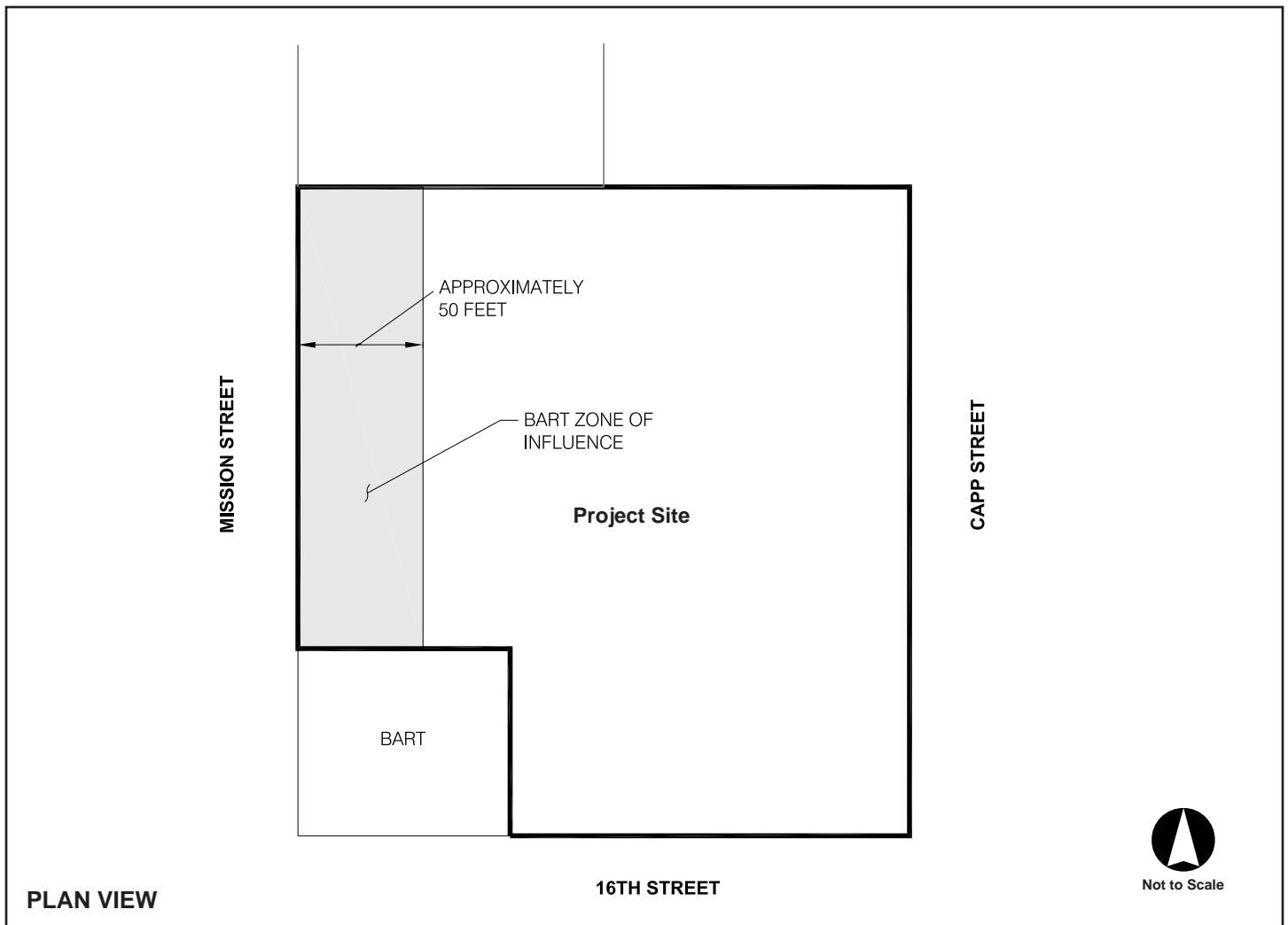
BART design and engineering requirements must be complied with where new construction is planned over or adjacent to BART's structures, in BART's zone of influence (ZOI).^{5,6} The ZOI is defined as the zone above an imaginary line drawn from the bottom the BART's substructure at a slope of 1.5 horizontal to 1 vertical toward the ground surface. BART requires that building loads in the BART ZOI do not impose surcharge pressure on the BART tunnel or the station walls.

BART's General Guidelines for Design and Construction over or adjacent to BART's Subway Structures address the allowable loads (i.e., surcharges) on the BART subway structures; shoring requirements for work near these structures; construction, including excavation, dewatering, pile driving; and monitoring for groundwater levels and vibration. Project sponsors are required to submit design and construction documents to BART for review and approval.

As described in Chapter 2, Project Description, the first approximately 50 horizontal feet of the project site parallel to Mission Street would be in the BART ZOI, as shown on Figure 4.C-2, and therefore would be subject to BART design and engineering requirements.

⁵ BART (Bay Area Rapid Transit District), 2012. Procedures for Permit and Plan Review. June. Available online at: bart.gov/sites/default/files/docs/Permits_and_Plan_Review_062012.pdf.

⁶ BART (Bay Area Rapid Transit District), 2003. General Guidelines for Design and Construction Over or Adjacent to BART's Subway Structures. July. Available online at: bart.gov/sites/default/files/docs/Gen_Guide_Subway_062012.pdf.



Source: Treadwell and Rollo, 2013.

BART ZONE OF INFLUENCE IN VICINITY OF PROJECT SITE

1979 Mission Street Project
San Francisco, California

FIGURE 4.C-2

4. Impacts and Mitigation

a. Significance Thresholds

Thresholds for determining the significance of impacts in this analysis are based on the environmental checklist in Appendix G of the CEQA Guidelines, which has been adopted and modified by the Planning Department. For the purpose of this analysis, the following applicable thresholds were used to determine whether implementation of the Proposed Project would result in a significant geology and soils impact. Implementation of the Proposed Project would have a significant effect on geology and soils resources if the project would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - 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);
 - Strong seismic ground shaking;
 - Seismically related ground failure, including liquefaction; or
 - Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in an on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property;
- 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 wastewater;
- Substantially change the topography or any unique geologic or physical features of the site; or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

b. Approach to Analysis

The Initial Study prepared for the Eastern Neighborhoods PEIR found that implementation of the Area Plans would not result in significant impacts with regard to geology, and no mitigation measures were identified. This issue was therefore not discussed in the Eastern Neighborhoods PEIR.

For the purposes of this analysis and due to the nature of the Proposed Project, there would be no Project impacts related to the following significance criteria. Therefore, an impact analysis is not provided for the reasons described below.

- Result in substantial soil erosion or the loss of topsoil. The project site is flat and fully developed. Soils are not currently exposed. During construction, soil would be exposed for a short time during demolition of existing structures and excavation for the building foundation and basement level. The Proposed Project would be required to comply with the City requirements for protection of exposed soils from erosion and runoff during project construction. As required by the Dust Control Ordinance and described under Topic 6, Air Quality, on pages 49 through 53 of the CPE Checklist (see Appendix A, attached), the Project Sponsor would submit a Dust Control Plan to ensure that Project construction dust impacts would not be significant. Therefore, the significance criterion related to soils erosion in the project area is not applicable to construction or operation of the Proposed Project, and is not analyzed further.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property. The project site is underlain by several clay layers, which could experience expansion. The Proposed Project would comply with the City Building Code and its requirements that the foundation of the building be designed and installed to protect against expansive soil. Therefore, the significance criterion related to expansive soils in the project area is not applicable to construction or operation of the Proposed Project, and is not analyzed further.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. The Proposed Project would connect to the City's sewer and stormwater collection and treatment system and would not use a septic waste disposal system. Therefore, the significance criterion related to the capacity of soils in the project area to support septic tanks or alternative wastewater disposal systems is not applicable to construction or operation of the Proposed Project, and is not analyzed further.
- Substantially change the topography or any unique geologic or physical features of the site. The Proposed Project would entail excavation activities during construction for the foundation and basement level. Because there are no unique geologic or physical features on the site and the project site has previously been modified from its natural state, the Project would not result in substantial changes to topography or unique features. Therefore, the significance criterion related to substantial changes in topography or unique geologic or physical features of the site is not applicable to construction or operation of the Proposed Project, and is not analyzed further.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. This topic was addressed in the CPE Checklist under Topic 3, Cultural and Paleontological Resources, starting on page 35 of the CPE Checklist, which determined that no significant impacts not previously identified in Eastern Neighborhoods PEIR would occur as a result of the construction or operation of the Proposed Project.

c. Impact Evaluation

This section analyzes the Proposed Project's impacts related to geology and soils.

Impact GE-1: The Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture, ground shaking, liquefaction, or landslides. (*Less than Significant*)

There are no earthquake faults on or less than 1 mile from the project site, and the project site is not in an Alquist-Priolo Earthquake Fault Zone. Therefore, no fault rupture at the Project would be expected to occur. However, the project site has a 63 percent chance of experiencing at least one major earthquake (magnitude 6.7 or higher) within the next 30 years.⁷ The intensity of such an event at the project site would depend on the distance to the causative fault and the earthquake epicenter, the depth of the rupture bgs, the moment magnitude, and the related duration of shaking. A strong seismic event in the Bay Area could potentially produce considerable ground accelerations at the project site.

During construction, the site would be excavated up to approximately 22 feet below grade. Approximately 34,523 cubic yards of soil would be excavated at the site. All excavated soil would be removed from the site and disposed of at an appropriate facility, except for a small amount to be used under the vehicle ramp in the parking garage. Due to the estimated groundwater depth of 8 to 10 feet bgs, and depending on the time of year, dewatering during construction and operations may be required. During excavation, the shoring system could yield and deform laterally if not properly designed. Such deformation could cause surrounding improvements to settle and move laterally. A pre-drilled soldier pile and lagging system⁸ with internal bracing would be used for stabilizing the area of excavation adjacent to Mission Street and the Northeast BART Plaza. The shoring system would be designed and installed in compliance with BART requirements, as described under Impact GE-3, below. Tiebacks⁹ would be used where the excavation abuts existing buildings on the northern side of the project site and the public right of way.

The Proposed Project is required to comply with the seismic safety standards set forth in the San Francisco Building Code. DBI is the City agency responsible for reviewing the Proposed Project's building permit application, structural drawings and calculations, and geotechnical report, and ensuring that the proposed project complies with the seismic safety standards and other applicable requirements of the Building Code. Project compliance with the Building Code would ensure that the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides would be low. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-2: The Proposed Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project. (*Less than Significant*)

Strong shaking during an earthquake can result in ground failure such as that associated with soil liquefaction, cyclic densification, and lateral spreading. The analyses in the geotechnical investigation prepared for the Proposed Project indicates that the sand layers underlying the site could liquefy during a strong earthquake. It is anticipated that if liquefaction occurs it would be localized. Furthermore,

⁷ USGS Working Group on Earthquake Probabilities, 2008. Forecasting California's Earthquake – What Can We Expect in the Next 30 Years? – USGS Fact Sheet 2008-3027, page 1. Available online at: <http://pubs.usgs.gov/fs/2008/3027/>. Accessed November 9, 2015.

⁸ A soldier pile and lagging system is a construction technique for retaining soil during excavation using vertical piles (i.e., column elements) with horizontal lagging (i.e., panel elements).

⁹ A tieback is a horizontal rod or wire used to reinforce retaining walls for stability; typically, one end of the tieback is secured to the wall that needs to be secured and the other end is anchored into a stable structure.

available geologic reports and maps pertaining to ground failures in San Francisco caused by previous earthquakes indicate that the site did not experience ground failures during the 1906 earthquake.¹⁰ The risk of extensive liquefaction at the site is low, because there are no unsupported steep slopes nearby toward which a destabilized soil mass could translate. Therefore, the risk of lateral spreading at the site during a strong earthquake is considered to be very low.¹¹ Depending on the thickness of loose fill, the geotechnical investigation estimated that up to ½ inch of earthquake induced settlement could occur at the ground surface outside the building, which could possibly lead to small displacements. Within the building footprint, the loose sand would be removed during basement excavation; therefore, differential compaction would not occur beneath the building.

The potential impacts related to a geologic unit or soil that is unstable, or that would become unstable as a result of the project, would be less than significant. No mitigation measures are necessary.

Impact GE-3: The Proposed Project could impose lateral surcharge pressures on the BART subway. (*Less than Significant with Mitigation*)

The first approximately 50 horizontal feet of the project site parallel to Mission Street is in the BART ZOI, and Project construction could result in temporary or permanent adverse impacts on the BART subway, such as placing loads or causing vibrations that exceed the allowable thresholds for BART subway structures.

BART has stringent requirements regarding construction adjacent to their facilities, including disallowing additional loads on the subway structures beyond the design thresholds established for the structures, requiring recharge if groundwater is lowered by more than 2 feet, and limiting vibrations from construction activities, as described above under Regulatory Framework.

The geotechnical investigation prepared for the Proposed Project recommended that a mat foundation be used to support the Proposed Project, as described in Chapter 2, Project Description. In the BART ZOI, the mat foundation would be supported on drilled piers that would transfer the building load to the soil below the ZOI. During construction adjacent to the BART station, the basement excavation would be shored and a soldier pile with lagging with internal bracing would be used. Elsewhere, a tied back soldier pile and lagging system with tiebacks would be used. The foundations of the two-story buildings north of the site would be underpinned using hand excavated piers. Basement walls would be designed to resist lateral at rest pressures imposed by the adjacent soil and any surcharge loads.

Construction in the BART ZOI and placement of additional loads in the ZOI could cause adverse effects on the BART subway during construction or operation of the Proposed Project if it is not properly designed and constructed, resulting in a potentially significant impact. The Proposed Project would comply with BART Guidelines for Design and Construction Over or Adjacent to BART's Subway Structures, and Procedures for Permit and Plan Review. The information required for this review would be included in the structural plan addendum to the site permit. Once these documents have been prepared by the project sponsor in consultation with the structural engineer, they would be submitted for review by BART. Such compliance would reduce potential impacts to the BART subway to less than significant. However, the geotechnical report prepared for the Proposed Project also made specific

¹⁰ Treadwell & Rollo, 2013. Geotechnical Investigation, 1979 Mission Street. Prepared for Maximus Real Estate Partners. January 30.

¹¹ Ibid.

recommendations for construction monitoring for this Project described in Mitigation Measure M-GE-3. These measures are imposed on the Proposed Project in addition to any requirements identified by BART through its review of the permit, and would reduce impacts related to the Project's lateral surcharge pressures on the BART subway to *less than significant with mitigation*.

Mitigation Measure M-GE-3: Design Approval and Construction Monitoring for BART Subway Structure described below would require compliance with BART's design and construction guidelines, development of construction related plans as required by BART, and construction monitoring for groundwater levels, vibration, and shoring movement or movement of adjacent structures. Impacts related to the project's lateral surcharge pressures on the BART subway would be *less than significant with mitigation*.

M-GE-3: Design Approval and Construction Monitoring for BART Subway Structure

Prior to submission of structural plan addendum to the site permit for the Proposed Project to DBI, the Project Sponsor shall submit such plans to BART for its review and approval to ensure that the plans comply with BART guidelines for the construction activity in the BART ZOI, including the General Guidelines for Design and Construction Over or Adjacent to BART's Subway Structures, and Procedures for Permit and Plan Review.¹²

The Project Sponsor and their structural engineer shall coordinate with BART to determine which of the following guidelines must be included in the plans to be submitted to BART for review:

- Geologic Hazards Evaluation and Geotechnical Investigation reports, which shall include an engineering geology map, a site plan showing the location of subway structures and BART easement, a soil reworking plan, and the geological conclusion and recommendations;
- Dewatering monitoring and recharging plans;
- A vibration monitoring plan and/or movement and deformation monitoring plans for steel lined tunnels. These plans shall include locations and details of instruments in subways;
- A foundation plan showing the anticipated total foundation loads;
- An excavation plan for area in the ZOI, showing excavation slope or shoring system; and
- A description of the procedures and control of the soil compaction operation.

The Project Sponsor and their consultant shall monitor the groundwater level in the BART ZOI, and piezometers shall be installed on the Mission Street sidewalk adjacent to the site if requested by BART.

The following guidelines would apply to the adjacent property owners within 50 feet of the project site:

¹² BART (Bay Area Rapid Transit District), 2012. Procedures for Permit and Plan Review. June. Available online at: bart.gov/sites/default/files/docs/Permits_and_Plan_Review_062012.pdf.

BART (Bay Area Rapid Transit District), 2003. General Guidelines for Design and Construction over or Adjacent to BART's Subway Structures. July. Available online at: bart.gov/sites/default/files/docs/Gen_Guide_Subway_062012.pdf.

Prior to start of construction, the Project Sponsor shall engage the service of a licensed land surveyor to prepare a pre-construction survey of the adjacent permanent structures within 50 feet of the project site by a licensed surveyor. The scope of the pre-construction survey shall include, but shall not be limited to, the following tasks.

- Establish survey measurements of the exterior elevations of adjacent properties to monitor any movement or settlement of adjacent permanent structures during excavation.
- Photograph and/or video the exterior and interior of the adjacent permanent structures which shall provide a complete documentation of existing conditions prior to commencement of the Work. The photographic and video survey shall be adequate in scope to provide a legally binding “before and after” comparison of the conditions of the adjacent permanent structures. The Project Sponsor shall provide copies of the survey report, photographs and video and all other documents disclosing the results of the pre-construction inspection to the adjacent property owners within 5 working days of receipt from the surveyor.
- Provide the adjacent property owners with the business addresses, telephone numbers, and names of (i) the shoring and underpinning engineer for the Project; and (ii) the contact persons for the general contractor and the subcontractor(s) responsible for completing the work at least 5 working days prior to commencement of the work.
- Install inclinometers and piezometers if necessary to monitor movement of the shoring system and to monitor groundwater levels, respectively, during excavation and construction.
- Notify the adjacent property owners of any change order affecting the scope of the work or the plans within 3 calendar days of such changes being proposed.

Upon start of construction, the Project Sponsor's licensed land surveyor shall perform the following tasks.

- Monitor the adjacent permanent structures within 50 feet of the project site. Monitoring shall be performed weekly until shoring and underpinning work has been completed; thereafter, monitoring shall be performed monthly during construction of foundation and retaining walls.
- In the event that there is more than one half inch of lateral movement, or one quarter inch of vertical movement, the Project Sponsor's surveyor shall immediately notify the adjacent property owner, the Project Sponsor's general contractor, the shoring and excavation sub-contractor, and DBI, and the Project Sponsor shall instruct his contractor and subcontractor to stop work until such time that appropriate remedial steps have been approved by DBI.

d. Cumulative Impacts

Impact C-GE-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects in the vicinity, would not result in a significant cumulative impact related to geology and soils. (*Less than Significant*)

The geographic scope for cumulative geology and soils impacts includes the project site and immediate vicinity, because these impacts are generally site-specific and depend on the local geology and soil conditions.

The Proposed Project, combined with other reasonably foreseeable development in the immediate project vicinity, and listed in Section 4.A.3 under Approach to Cumulative Analysis, would increase the population and development in an area subject to seismic risks and hazards. However, the Proposed Project and all other foreseeable projects in the immediate vicinity would be required to implement appropriate geotechnical design requirements similar to those discussed in this section, and to adhere to all state and local building codes, including fire, seismic, structural, and policies pertaining to building safety and construction permitting. Therefore, the Proposed Project, combined with other foreseeable development in the immediate vicinity, would result in a less than significant cumulative impact related to geology or soils. No mitigation measures are necessary.

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CHAPTER 5

Other CEQA Issues

This chapter addresses growth inducement impacts, significant environmental impacts that cannot be avoided, significant irreversible environmental changes, and areas of controversy and issues to be resolved if the Proposed Project is implemented.

A. Growth Inducing Impacts

This section analyzes the growth inducement potential of the Proposed Project, as required by CEQA Guidelines Section 15126.2(d). A project is considered growth inducing if it would directly or indirectly foster substantial economic or population growth, or the construction of substantial amounts of additional housing. Examples of projects likely to result in significant adverse growth inducement include extensions or expansions of infrastructure systems beyond what is needed to serve project specific demand, and development of new residential subdivisions in areas that are sparsely developed or undeveloped. The environmental effects of project induced growth are considered secondary or indirect impacts of the project. Growth can result in a variety of indirect environmental impacts, including increased demand on community services and public service infrastructure, increased traffic and noise, and degradation of air and water quality.

Assessing the growth inducement potential of the Proposed Project involves determining whether construction of the Proposed Project would remove an obstacle to population growth, and therefore directly or indirectly support more economic or population growth or residential construction in the surrounding environment. The project site is located on an infill site and is surrounded on all sides by urban uses. The Proposed Project would increase population density in the project area, replacing 50,915 square feet of retail/restaurant/entertainment uses and a 24,210 square foot surface parking lot with a new 388,912 gsf, mixed use residential and retail project, including 331 residential units. The Proposed Project would provide high density residential growth that would not require expansion to existing infrastructure, public services, community facilities, or public utilities. Although this growth might have otherwise occurred at other Bay Area locations, the Proposed Project would focus growth on an underused infill site that is adjacent to local and regional public transit, employment areas, and public amenities.

The Eastern Neighborhoods PEIR found that an increase of approximately 7,400 to 9,900 dwelling units throughout the lifetime of the Eastern Neighborhoods Rezoning and Area Plans (year 2025) would be expected to occur as a secondary effect of implementation of the Eastern Neighborhoods Rezoning and Area Plans.

As of February 23, 2016, projects containing 9,749 dwelling units and 2,807,952 square feet of nonresidential space have completed or plan to complete environmental review in the Eastern

Neighborhood Plan areas. This level of development corresponds to an overall population increase of approximately 23,758 to 25,332 persons. In the Eastern Neighborhoods PEIR, approximately 782 to 2,054 of these dwelling units were anticipated in the Mission Area Plan subarea, and 700,000 to 3,500,000 square feet of nonresidential space (excluding production, distribution, and repair loss) through the year 2025. This level of development corresponds to an overall population increase of approximately 4,719 to 12,207 persons; and as of February 23, 2016, approximately 2,451 dwelling units and 355,842 square feet of nonresidential space have completed or are planned to complete environmental review in this subarea, including the Proposed Project.¹ This level of development corresponds to an overall population increase of 8,764 to 10,650 persons. Of the 2,451 dwelling units that are under review or have completed environmental review, building permits have been issued for 989 dwelling units, or approximately 40 percent of those units.

The Eastern Neighborhoods PEIR also determined that the Eastern Neighborhoods Rezoning and Area Plans would serve to advance some key City policy objectives, including provision of housing, especially permanently affordable housing, conversion of underused industrial lands to housing, and new opportunities for housing near downtown. In addition, the Eastern Neighborhoods PEIR found that the Eastern Neighborhoods Rezoning and Area Plans would not create a substantial demand for additional housing in San Francisco. However, the Eastern Neighborhoods PEIR determined that the entire Eastern Neighborhoods Rezoning and Area Plans are themselves potentially growth inducing, because they would remove barriers to housing and population growth throughout the plan area, and would result in secondary and cumulative effects due to that growth. These indirect and cumulative effects are fully analyzed in the Eastern Neighborhoods PEIR. The Proposed Project is within the development projected to occur under the Eastern Neighborhoods Rezoning and Area Plans, and there would be no additional impacts related to any growth inducing effects beyond those analyzed in the Eastern Neighborhoods PEIR.

Therefore, implementation of the Proposed Project would increase population growth only to the extent already envisioned in existing regional, local, and area plans, and would not have a direct or indirect growth inducing impact.

B. Significant Unavoidable Impacts

In accordance with Section 21067 of CEQA, and CEQA Guidelines Sections 15126(b) and 15126.2(b), the purpose of this section is to identify Project related environmental impacts that could not be eliminated or reduced to a less than significant level with the implementation of all identified mitigation measures. The findings in this chapter are subject to final determination by the Planning Commission as part of its certification of this EIR.

Previously, the Eastern Neighborhoods PEIR determined that adoption of the Eastern Neighborhoods Rezoning and Area Plans could result in new shadow on project area parks, possibly in substantial amounts, depending on the specifics of the future individual proposals. As stated in the Eastern Neighborhoods PEIR, the feasibility of complete mitigation for potential new shadow impacts of

¹ For this and the Land Use and Land Use Planning section, environmental review is defined as projects that have or are relying on the growth projections and analysis in the Eastern Neighborhoods PEIR for environmental review (i.e., Community Plan Exemptions or Focused Mitigated Negative Declarations and Focused EIRs with an attached Community Plan Exemption Checklist).

unknown development proposals could not be determined at that time. Therefore, no mitigation measures were identified, and the Eastern Neighborhoods PEIR identified a significant and unavoidable impact to shadow. This impact was addressed in a Statement of Overriding Considerations with CEQA Findings, and adopted as part of the Eastern Neighborhoods Rezoning and Area Plans approval in December 2008.

Subsequently, this EIR has identified Project related impacts that would remain potentially significant or significant, even with the implementation of all identified mitigation measures. Chapter 4, Environmental Setting, Impacts, and Mitigation Measures, describes the potential environmental impacts of the Proposed Project, and identifies mitigation measures to reduce those impacts. With the exception of the significant and unavoidable impacts described below, all other significant impacts would be eliminated, or reduced to less than significant levels by the identified mitigation measures.

As evaluated in Section 4.B, Wind and Shadow, the Proposed Project would result in the following significant and unavoidable project specific and cumulative impacts related to shadows:

- Impact WS-2: The Proposed Project would create new shadow in a manner that would substantially affect the Marshall Elementary School outdoor recreation facilities and open space.
- Impact C-WS-2: The Proposed Project would have a cumulatively considerable contribution to significant cumulative shadow impacts, substantially affecting outdoor recreation facilities and open space.

C. Significant Irreversible Environmental Changes

In accordance with Section 21100(b)(2)(B) of CEQA and CEQA Guidelines Sections 15126(c) and 15126.2(c), the purpose of this section is to identify significant irreversible environmental changes that would be caused by implementation of the Proposed Project. Uses of nonrenewable resources during the initial and continued phases of a project may be irreversible, because a large commitment of such resources makes removal or non-use thereafter unlikely. Primary impacts, and particularly secondary impacts (such as a highway improvement that provides access to a previously inaccessible area), generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with a project.

Construction of the Proposed Project would result in a minor irreversible and irretrievable commitment of natural resources through the use of fossil fuels and construction materials. Additionally, Proposed Project operation would involve a minor, incremental use of nonrenewable resources, such as electricity, because the project site is an infill site surrounded by urban uses and located at a transit hub, thereby limiting the irretrievable commitment of resources required to support the Proposed Project. Furthermore, the Project Sponsor would implement applicable Green Building requirements, including those for construction, recycling, construction materials including low emitting materials, energy and water consumption, parking, and stormwater, thereby further reducing the commitment of natural resources to the Proposed Project.

D. Areas of Known Controversy and Issues to be Resolved

The Notice of Preparation (NOP) and Community Plan Exemption (CPE) Checklist for this Project was published on January 28, 2015, beginning a public review and comment period that ended on March 2,

2015. Individuals and agencies receiving these notices included owners of properties within 300 feet of the project site, potentially interested parties, and local, regional and state agencies. In addition, the notice was provided to neighborhood organizations who requested Planning Department notification of projects in the Mission District. During the review and comment period, approximately 282 emails, letters, and comment cards were submitted to the Planning Department by interested parties. The emails, letters, and comment cards received in response to the NOP and CPE Checklist are available for review as part of Case File No. 2013.1543E. The Planning Department has considered the comments made by the public in preparation of the Draft EIR for the Proposed Project.

Comments on the NOP and CPE Checklist pertain to environmental issues as well as to project merits, including the size and design of the Proposed Project, and socioeconomic issues. Comments pertaining to project merits are provided for consideration by decisionmakers in their review of the approval actions for the Proposed Project. Comments are grouped below by environmental topic, and summarized. The location where the topic is addressed in the NOP and CPE Checklist, or in this EIR, is noted. Comments not related to environmental issues are summarized separately.

Project Description

Several comments assert that the Proposed Project would not be an environmentally friendly, transit oriented development, because it would include a 163 car parking garage. Comments suggest that the Project would cater to higher income residents who are more likely to drive, thereby increasing carbon emissions. One of the comments recommended that the parking garage be replaced by community space and bicycle parking. Another comment suggested that the potential elevated playground at Marshall Elementary School (not proposed as part of this Project) be connected to the existing playground area via a ramp. One of the comments stated that the open space provided on the second floor of the Proposed Project would be private and not publicly accessible, and therefore would not constitute a community benefit. To the extent these comments regard the merits of the Proposed Project, they are provided to the decisionmakers for consideration during their review of project approvals.

Conclusions regarding transportation and circulation impacts are addressed in the CPE Checklist attached as Appendix A to this EIR. In addition, in January 2016, OPR published for public review and comment a *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*² (proposed transportation impact guidelines) recommending that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. VMT measures the amount and distance that a project might cause people to drive, accounting for the number of passengers in a vehicle.

OPR's proposed transportation impact guidelines provide substantial evidence that VMT is an appropriate standard to use in analyzing transportation impacts to protect environmental quality, and a better indicator of greenhouse gas, air quality, and energy impacts than automobile delay. Acknowledging this, San Francisco Planning Commission Resolution 19579, adopted on March 3, 2016:

- Found that automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall no longer be considered a significant impact on the environment pursuant to CEQA, because it does not measure environmental impacts and therefore does not protect environmental quality.

² This document is available online at: https://www.opr.ca.gov/s_sb743.php.

- Directed the Environmental Review Officer to remove automobile delay as a factor in determining significant impacts pursuant to CEQA for all guidelines, criteria, and list of exemptions, and to update the Transportation Impact Analysis Guidelines for Environmental Review and Categorical Exemptions from CEQA to reflect this change.
- Directed the Environmental Planning Division and Environmental Review Officer to replace automobile delay with VMT criteria which promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses; and consistent with proposed and forthcoming changes to the CEQA Guidelines by OPR.

The Proposed Project meets the new screening level VMT threshold.³

The components of the Proposed Project, including open space and parking spaces, are described in Chapter 2, Project Description, of this EIR (pages 2-7 through 2-34).

Environmental Review Process

One comment requested an extension of the public comment period following the publication of the NOP and CPE Checklist to submit comments. Chapter 1, Introduction, describes the EIR scoping period (pages 1-3 through 1-5). The NOP, published on January 28, 2015, initiated a 30-day review through March 2, 2015. The Planning Department continued to accept comments after the end of the public comment period. Comments considered in this EIR were received through March 11, 2015.

Comments on Adequacy of Eastern Neighborhoods PEIR

Several comments suggested that the Eastern Neighborhoods PEIR should not be relied on for environmental review of the Proposed Project, because there are project specific environmental effects, and substantial new information has become available since the release of the Eastern Neighborhoods PEIR. These comments state that the increase in housing prices in the Mission District should be considered substantial new information, and that project specific environmental effects would result from the Proposed Project's location next to Marshall Elementary School. These comments suggest that the EIR should analyze other impact topics in addition to wind, shadow, and geology and soils. Other comments expressed that there was no need for an EIR, because the project was already addressed in the Eastern Neighborhoods PEIR. Section 4.A, Introduction to Environmental Setting, Impacts, and Mitigation Measures, addresses the adequacy of the Eastern Neighborhoods PEIR (pages 4.A-2 through 4.A-5). In addition, other environmental topics, aside from wind, shadow, and geology and soils, are addressed in the CPE Checklist (Appendix A of this EIR). As identified in the CPE Checklist, mitigation measures from the Eastern Neighborhoods EIR were applied to the Proposed Project, as well as other improvement measures for transportation and construction emissions.

Land Use

One comment stated that the Proposed Project would divide an existing community by causing gentrification of the neighborhood and displacement. This issue is addressed under Topic 1, Land Use and Land Use Planning, on pages 33 and 34, of the CPE Checklist (Appendix A of this EIR).

³ Planning Department, 2016. Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis for 1979 Mission Street. March 18.

As described in Chapter 2, Project Description, the Proposed Project must comply with the requirements of the City's Inclusionary Affordable Housing program. Topic 2, Population and Housing, on page 35 of the CPE Checklist, addresses this topic. Environmental analysis under CEQA is required to focus on the direct and indirect physical changes to the environment that could reasonably result from a proposed project. Accordingly, the displacement issue addressed under CEQA, and as stated in the CPE Checklist, refers specifically to the direct loss of housing units that would result from proposed demolition of existing housing. The Proposed Project would not remove existing housing. Therefore, there would be no direct physical displacement effects as a result of the proposed project. In addition, the possibility that the Proposed Project would cause gentrification of the neighborhood and displacement is speculative, and is not a physical environmental effect subject to analysis under CEQA.

Transportation and Circulation

One comment stated that the Proposed Project would cause significant impacts on transit, traffic, and parking in the immediate vicinity, as well as the broader area. Another comment stated that widening the sidewalk on Capp Street would increase congestion, because cars would no longer be able to go around other cars that are dropping off or picking up children at Marshall Elementary School. Impacts associated with the proposed streetscape improvements, including sidewalk widening, were analyzed in the Transportation Impact Study (TIS) prepared for the Project.⁴ As noted in the TIS, the proposed streetscape improvements would not impede or modify existing vehicular access to the student drop off/pick up zone along the western side of Capp Street, nor would these improvements impede access to the school by other modes of transportation. As described under Topic 4, Transportation and Circulation, on pages 38 through 46 of the CPE Checklist, the Proposed Project would not result in significant traffic impacts under Existing Plus Project conditions, and would not contribute considerably to 2025 cumulative LOS delay conditions.

Another comment stated that as the lead agency, the City is responsible for all project mitigation, including any needed improvements to state highways, and requested that the Transportation Impact Fees associated with the Project be identified. In addition, the comment requested that pedestrian, bicycling, and transit impacts be identified, and stated that an encroachment permit would be needed for any work or traffic control that encroaches onto the state right of way. A detailed analysis of transportation impacts is contained in the TIS prepared for the Project.⁵

Multiple comments expressed concerns that the new parking garage would exit on Capp Street, which is used by parents and children to access the school, potentially resulting in pedestrian safety issues and increased traffic congestion. These issues are addressed on pages 42 and 43 of the CPE Checklist (Appendix A of this EIR). A complete TIS was prepared for the Project, and is available for review at the Planning Department as part of Case File No. 2013.1543E. The Proposed project would be subject to Area Plan Impact Fees as well as the Transportation Sustainability Fee. As stated above under Project Description, LOS is no longer the metric for measuring traffic impacts. The Proposed project meets the screening criteria for VMT, and would not result in a substantial VMT impact.

⁴ CHS Consulting Group, 2014. 1979 Mission Street Mixed-Use Residential Project Transportation Impact Study. December 15.

⁵ Ibid.

Noise

Multiple comments expressed concerns about construction noise levels that would be generated by the Project in the vicinity of Marshall Elementary School. This issue is addressed under Topic 5, Noise, pages 46 through 49 of the CPE Checklist (Appendix A of this EIR). This is mitigated in the Eastern Neighborhoods EIR, and the applicable construction noise mitigation measure has been applied to this project.

Air Quality

Many comments expressed concerns about construction dust affecting the children attending Marshall Elementary School. This issue is addressed under Topic 6, Air Quality, on page 50 of the CPE Checklist (Appendix A of this EIR). In particular, the Proposed Project is required by the City's Dust Control Ordinance to prepare a Dust Control Plan for review by the Department of Public Health, and to implement measures to minimize dust at the construction site.

Wind and Shadow

Several comments noted that the Proposed Project would have the potential to create wind and shadow impacts, particularly shadows cast on Marshall Elementary School. Wind and shadow are analyzed in the EIR in Chapter 4.B, Wind and Shadow (pages 4.B-1 through 4.B-34). One of the comments specifically noted that shadows would be cast on the Redstone Building at 2940 16th Street, which is designed for passive (sunlight) heating. The Redstone Building is not an outdoor recreation facility or other public open space. Therefore, shadow impacts on this building are not evaluated under CEQA.

Utilities and Service Systems

One comment stated that the Project would use substantial amounts of water for both construction and operation. The comment recommends that the building include water storage and capacity tanks, as well as larger roof rain collection systems to meet water rationing needs. Water use is addressed under Topic 10, Utilities and Service Systems, on page 55 of the CPE Checklist (Appendix A of this EIR).

Hazards and Hazardous Materials

One comment stated that dust from construction of the Proposed Project, particularly the demolition of the existing buildings which are known to contain lead and asbestos, would cause significant health risks. Hazardous materials and hazardous wastes were addressed under Topic 15, Hazards and Hazardous Materials, on pages 59 through 61 of the CPE Checklist (Appendix A of this EIR). This is mitigated in the Eastern Neighborhoods EIR, and the applicable hazards mitigation measure has been applied to this project.

Public Services

One comment stated that public services are already at capacity with longer than normal wait times, and the Project would negatively affect the public infrastructure and services. This issue is addressed under Topic 11, Public Services, on page 55 of the CPE Checklist (Appendix A of this EIR).

Geology and Soils

One comment expressed concern that the Project may have a significant impact on transit systems in the event of an earthquake due to its proximity to the BART tunnel, stating that the size and weight of the

Project design would impact the soils and geological conditions at the site over the course of construction. Geology and Soils, including the BART tunnel, are addressed in Section 4.C of this EIR (pages 4.C-1 through 4.C-15).

Project Merit

The following comments are not related to environmental issues addressed in this EIR, and are provided for consideration by decisionmakers in their review of the approval actions for the Proposed Project.

The majority of the comments received on the NOP/CPE Checklist relate to the impact of the Proposed Project on the housing supply in San Francisco. A number of comments expressed support for the Project because it would increase the housing supply at a time of increasing demand and currently rising housing prices. Other comments expressed a preference for a greater number of units than proposed. A few of the comments also noted that the Project was ideally located in a transit rich location.

Many other comments expressed opposition to the Proposed Project, stating that the Project would not provide enough affordable housing and that the units developed under the Proposed Project would mainly be affordable to wealthy residents. Some comments said that the Proposed Project would increase property values, resulting in increased development pressures, displacement, and evictions in the neighborhood. One comment mentioned that a “luxury development” would be more suitable in other neighborhoods in San Francisco rather than in the Mission District.

Several comments expressed support for the proposed improvements to the streetscape and the Northeast BART Plaza. Comments also stated that the improvements would increase the Northeast BART Plaza’s safety.

A comment speculated that the newly added Northeast BART Plaza open space would be used primarily for sales oriented purposes rather than passive recreation, thereby detracting from the public nature of the plaza.

One comment recommended that the Project construct a publicly accessible urban garden on the roof deck or communal areas of the site.

One comment stated that the Project Sponsor has negatively affected a large rental apartment community in San Francisco (Park Merced).

A comment suggested that a study be prepared on the connection between housing development pressures and gentrification.

Another comment suggested that the Project Sponsor create an endowment dedicated to Marshall Elementary School.

Summary

The comments received on the NOP/CPE Checklist have been addressed and analyzed throughout this EIR and the CPE Checklist, as noted above.

This Draft EIR has been circulated for public review and comment, as described in Chapter 1, Introduction. During this public review period, written comments concerning the accuracy and adequacy of the Draft EIR will be accepted, and a public hearing will be held before the Planning Commission to receive oral comments. After the close of the public comment period, written responses

will be prepared to address substantive comments received on the environmental analysis, and any revisions to the Draft EIR will be identified.

Comments expressing support for the Proposed Project or opposition to it will be considered independently of the environmental review process by City decisionmakers, as part of their decision to approve, modify, or disapprove the Proposed Project.

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CHAPTER 6

Alternatives

State CEQA Guidelines Section 15126.6(a) requires that an EIR evaluate “a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects, and evaluate the comparative merits of the alternatives.” An EIR need not consider every conceivable alternative to a proposed project. Rather, a range of potentially feasible alternatives, governed by the “rule of reason,” must be considered. This is intended to foster informed decision making and public participation (State CEQA Guidelines Section 15126.6[f]).

CEQA generally defines “feasible” to mean the ability to be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors. The following factors may also be taken into consideration when assessing the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and the ability of the proponent to attain site control (*CEQA Guidelines* Section 15126.6[f][1]).

CEQA also requires that a No Project Alternative be evaluated (CEQA Guidelines Section 15126.6[e]). The analysis of the No Project Alternative is based on the assumption that the Project would not be approved. In addition, an environmentally superior alternative must be identified among the alternatives considered. The environmentally superior alternative is generally defined as the alternative that would result in the least adverse environmental impacts to the project site and affected environment. If the No Project Alternative is found to be the environmentally superior alternative, the EIR must identify an environmentally superior alternative among the other alternatives.

The analysis of alternatives is of benefit to decisionmakers because it provides more complete information about the potential impacts of land use decisions. Consequently, there is a better understanding of the interrelationship among all of the environmental topics under evaluation. Decisionmakers must consider approval of an alternative if it would substantially lessen or avoid significant environmental impacts identified for the proposed project, and if the alternative is determined to be feasible.

This chapter identifies alternatives to the Proposed Project, and discusses environmental impacts associated with each alternative. Alternatives were selected that would reduce identified impacts of the Proposed Project. The Proposed Project would result in significant unavoidable impacts related to shadow. Specifically, the Proposed Project would result in significant unavoidable shadow impacts on the Marshall Elementary School Playground (the Playground).

In addition, the Proposed Project, combined with past, present, and reasonably foreseeable future projects, would result in a considerable contribution to significant cumulative shadow impacts on the Playground.

A. Summary of Project Alternatives

This chapter compares six alternatives, summarized below and in Table 6-1:

- Alternative A: No Project Alternative, under which the project site would not be redeveloped, and would remain in its existing condition and uses.
- Alternative B: Bulk Code Compliant Alternative, under which the project site would be redeveloped with a building massing that would comply with the bulk district requirements for the project site. Similar to the Proposed Project, under this alternative the project site would be developed as a mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.
- Alternative C: Raised Playground Alternative, under which the project site would be redeveloped in the same way as the Proposed Project, but the existing Playground would be replaced with a one story structure with a Playground on its roof (referred to as the Raised Playground). In particular, the one story multi use room of the existing school at the northwestern corner of the Playground and the temporary modular building at the southeastern corner of the Playground would be removed. Then a new 15-foot-high structure would be constructed at the location of the existing Playground, the roof of which would be the new Raised Playground. The structure would include a new multi-purpose room, a music room, a library, a classroom, storage space, an area for trash, recycling, and compost bins, and parking for up to eight cars below the new Raised Playground. Similar to the Proposed Project, under this alternative, the project site would be developed as mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.
- Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side), under which the Mission Street and 16th Street residential components would be identical to the Proposed Project. However, the northeastern corner of the Capp Street residential component would be reduced from five stories to three and four stories. Similar to the Proposed Project, under this alternative, the project site would be developed as a mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.
- Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component, under which the Mission Street and 16th Street residential components would be identical to the Proposed Project. However, the northern end of the Capp Street residential component would be further reduced in height through a series of setbacks from the northern property line, ranging between 35 and 55 feet. Similar to the Proposed Project, under this alternative the project site would be developed as mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.
- Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components, under which the 16th Street residential component would be identical to the Proposed Project. However, the northern end of the Capp Street residential component would be set back 70 feet from the northern property line above the podium, and the height of the Mission Street residential component would be reduced from 105 to 65 feet. Similar to the Proposed Project, under this alternative the project site would be developed as a mixed use residential building with ground floor retail uses, off street ground level loading and basement parking, and privately owned, publicly accessible open space along the Northeast BART Plaza.

Table 6-1
Summary of Project Alternatives and Proposed Project

Description	Proposed Project	Alternative A – No Project	Alternative B – Bulk Code Compliant Alternative	Alternative C – Raised Playground Alternative	Alternative D – Reduced Shadow Alternative 1	Alternative E – Reduced Shadow Alternative 2	Alternative F – Reduced Shadow Alternative 3
Ability to Meet Project Sponsor's Objectives	Would meet all Project Sponsor's objectives.	Would not meet any of the Project Sponsor's objectives.	Would meet all Project Sponsor's objectives but to a lesser extent than the Proposed Project.	Would meet all Project Sponsor's objectives.	Would meet all Project Sponsor's objectives but to a lesser extent than the Proposed Project.	Would meet some of the Project's Sponsor's objectives but would have less opportunities to provide affordable and high density housing adjacent to a local and regional public transit hub compared to the Proposed Project.	Would meet some of the Project's Sponsor's objectives but would have less opportunities to provide affordable and high density housing adjacent to a local and regional public transit hub compared to the Proposed Project.
Building Height/Stories	55 to 105 feet (121 feet with elevator penthouse)/6 to 10 stories	Approximately 23 to 30 feet, 1 story	Same as Proposed Project	Same as Proposed Project	35 to 105 feet (121 feet with elevator penthouse)/3 to 10 stories	15 to 105 feet (121 feet with elevator penthouse)/1 to 10 stories	15 to 105 feet (121 feet with elevator penthouse)/1 to 10 stories
Residential Units	331	None	331	331	327	310	243
Parking							
Vehicle	163 spaces (136 residential, 22 commercial, 4 car share, and 1 ADA van space), and 3 freight loading spaces	54 spaces	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project
Bike	192 spaces (162 secured Class I spaces in basement and 30 Class II spaces on street)	None	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project

Table 6-1
Summary of Project Alternatives and Proposed Project Development (Continued)

Description	Proposed Project	Alternative A – No Project	Alternative B – Bulk Code Compliant Alternative	Alternative C – Raised Playground Alternative	Alternative D – Reduced Shadow Alternative 1	Alternative E – Reduced Shadow Alternative 2	Alternative F – Reduced Shadow Alternative 3
Building Characteristics							
Mission Street component ⁶	6 to 10 stories/65 to 105 feet in height/121 feet inclusive of the elevator penthouse	NA	6 to 10 stories/121 feet in height inclusive of the elevator penthouse	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	6 stories/65 feet in height/81 feet inclusive of the elevator penthouse
16th Street component ⁶	7 to 10 stories/75 feet to 105 feet in height/121 feet inclusive of the elevator penthouse	NA	6 to 10 stories/121 feet inclusive of the elevator penthouse	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project
Capp Street component ⁶	5 stories/55 feet in height/71 feet inclusive of the elevator penthouse	NA	Same as Proposed Project	Same as Proposed Project	3 to 5 stories/71 feet in height inclusive of the elevator penthouse	1 to 5 stories/15 to 55 feet in height/71 feet in height inclusive of the elevator penthouse and set back 35 feet from the north property line above the first floor with additional setback on the fourth and fifth floors	1 to 5 stories/15 to 55 feet in height/71 feet in height inclusive of the elevator penthouse and set back 70 feet from the north property line above the first floor

Table 6-1
Summary of Project Alternatives and Proposed Project Development (Continued)

Description	Proposed Project	Alternative A – No Project	Alternative B – Bulk Code Compliant Alternative	Alternative C – Raised Playground Alternative	Alternative D – Reduced Shadow Alternative 1	Alternative E – Reduced Shadow Alternative 2	Alternative F – Reduced Shadow Alternative 3
Ground floor	Retail: 34,198 gsf; Residential: 3 residential lobbies; 3 residential units on Capp Street; Garage: 3 freight/spaces; 1 ADA accessible van parking space; building services; and 4 Class I bicycle parking spaces for commercial tenants.	Retail: 50,915 square feet with mezzanine and partial basements and a 54 car surface parking lot	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project
Basement	162 vehicle parking spaces (22 retail parking spaces; 4 car share spaces; and 136 residential parking spaces); 158 Class I bicycle parking spaces; Building services, including emergency generator.	Partial basement under both buildings	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project	Same as Proposed Project
Open Space							
Publicly accessible open space (square feet)	2,175	None	2,175	2,175	2,175	2,175	2,175
Common (square feet)	28,741	None	25,596	28,741	28,053	25,508	31,508
Number of units with private decks	29	None		29			

1. Overview of Proposed Project's Impacts

As described above, the intent of the alternatives analysis is to consider designs and a development program that could avoid or lessen significant and unavoidable impacts resulting from the Proposed Project. As evaluated in Section 4.B, Wind and Shadow, the Proposed Project would result in the following significant and unavoidable project specific and cumulative impacts related to Wind and Shadow:

- Impact WS-2: The Proposed Project would create new shadow in a manner that could substantially affect the Marshall Elementary School outdoor recreation facilities and open space.
- Impact C-WS-2: The Proposed Project would have a cumulatively considerable contribution to significant cumulative shadow impacts, substantially affecting outdoor recreation facilities and open space.

The shadow analysis prepared for the Proposed Project and described in Chapter 4.B, Wind and Shadow, Section 8c., identified significant and unavoidable shadow impacts on the Playground. The Proposed Project's shadow impacts on the BART Plazas were determined to be less than significant based on the amount, size, and duration of the new shadow, and the affected uses in the shaded areas of the plazas.

The Proposed Project would result in minimal shadow impacts (0.16 percent reduction of the Theoretical Available Annual Sunlight [TAAS]¹ at the Marshall Elementary School outdoor learning area, which is further north of the project site on 15th Street). The Playground, bordered by Capp Street to the east, the project site to the south, other existing buildings to the west, and the school building to the north, would experience a 22 percent reduction of TAAS. As described in Chapter 4.B, (Wind and Shadow), Section 8c., the Proposed Project's shadow would substantially affect the Playground, and this shadow impact would be significant and unavoidable. Therefore, alternatives that would reduce the shadow impact on the Playground were developed and analyzed.

The three residential components of the Proposed Project would create varying degrees of new shadow on the Playground. The Capp Street residential component, up to 55 feet tall, would be located adjacent to the southern boundary of the Playground and would replace an existing surface parking lot that currently casts no shadow on the Playground. As shown in Exhibit C of the shadow study prepared for the Project,² the Capp Street residential component would account for the majority of the new shadow impact on the Playground in the morning and early afternoon. Therefore, alternatives that would reduce the height of the Capp Street residential component of the Proposed Project would achieve the most substantial reduction in the total new shadow load on the Playground.

The 105 foot tall 16th Street residential component would be south of and adjacent to the Capp Street residential component. The 16th Street residential component would add minimal new shadow on the Playground and would minimally overlap the shadow on those parts of the Playground already shaded by the Capp Street residential component. Reducing the height of the 16th Street component would not substantially reduce the new shadow at the Playground as a result of the Proposed Project.

¹ The TAAS is the amount of sunlight that would be available in a park or open space in the course of a year if there were no shadows from structures, trees, or other facilities.

² CADP, 2015. 1979 Mission Street Shadow Analysis. Prepared for Maximus Real Estate Partners. November.

The 105 foot tall Mission Street residential component would be located southwest of the Playground and west of the 16th Street and Capp Street residential components. Due to its location, it would not shade the Playground until the late afternoon when project shadows would occur to the northeast. In addition, some of the shadow impacts that would result from the Mission Street residential component would overlap with shadows from the Capp Street residential component. Therefore, reducing the height of the Mission Street residential component without also reducing the height of the Capp Street residential component would achieve minor reductions in shadow impacts on the Playground. These reductions would occur in the afternoon beginning after 2:00 p.m. in the autumn and after 1:00 p.m. in the winter.

2. Development of Alternatives

As stated above, the alternatives were developed to address the Proposed Project's significant shadow impact on the Playground. The annual school year, including a summer program, is typically from mid-August through mid-July. In past years, there has been a summer program during the summer break, which includes activities in the Playground from 8:15 a.m. to 3:15 p.m. San Francisco Unified School District (SFUSD) has consolidated the number of school sites at which the Summer Program is offered, and currently there is no summer program at Marshall Elementary School.³ The daily schedule for the school is from 8:15 a.m. through 6:00 p.m. Recess and lunch times occur between 10:15 a.m. and 1:00 p.m., and the school day ends at 2:40 p.m. The Playground is generally used throughout the day, from 8:15 a.m. through 6:00 p.m. In addition to being used for recess and lunch/recess periods, the Playground is used for physical education classes; after 2:40 p.m. it is used for the After School Program.⁴

Although the Playground is used throughout the day between 8:15 a.m. and 6:00 p.m., it is more intensively used during the recess and lunch periods between 10:00 a.m. and 1:00 p.m. Under existing conditions, the Playground is largely sunny during this time period throughout the year. Therefore, alternatives to the Proposed Project were designed principally to reduce the Proposed Project's shadow in this time period.

a. Characterization of the Shadow at the Playground

The Playground is directly north of the project site. It includes a paved play area, with a drawn kickball diamond and foursquare game area, a basketball hoop, a jungle gym, and a turf field (see Figure 6-1).

During the winter⁵ in the early morning (at about 8:20 a.m.), the Playground is fully shaded by existing buildings to the east and by the Proposed Project to the west and south. Shadows from existing buildings move off the Playground to the northeast. By 10:00 a.m., the Playground would be shaded by the Proposed Project, covering the turf field, the foursquare game area, and the kickball diamond (see Exhibit C in Appendix B). The Playground would continue to be shaded by the Proposed Project until 2:00 p.m. During this period, shadow on the Playground would move from southwest to northeast. The largest shadow cast by the Proposed Project on the Playground in the winter would occur at 2:15 p.m., covering approximately 10,826 square feet. By 1:00 p.m., shadow from existing structures starts shading the Playground from the west and moves to the east. By 3:55 p.m., shadow on the Playground is mostly due to existing buildings. Sunset occurs at about 4:55 p.m. on this day (December 20).

³ Ibid.

⁴ Avila, Peter, 2014. Telephone record of communication between Debra Dwyer, Planning Department staff, and Peter Avila, Principal, Marshall Elementary School. November 20.

⁵ Winter is represented by conditions on December 20, which is the day with the greatest amount of Proposed Project's shadow.



Source: CADP, 2015

DETAIL OF MARSHALL ELEMENTARY SCHOOL PLAYGROUND LAYOUT

1979 Mission Street Project
San Francisco, California



Not to Scale

FIGURE 6-1

In the spring and autumn, the Playground is completely shaded by existing buildings at 7:57 a.m. By 9:00 a.m., shadow from existing buildings starts to move off the Playground to the northeast. During that time, a small area in the southern part of the Playground would start to be shaded by the Proposed Project. This shadow would increase throughout the day, reaching its greatest extent at 4:15 p.m., with a shaded area of 4,524 square feet. By late afternoon at 6:00 p.m., a small portion of the Playground along the southern boundary would be shadowed by new shadow from the Proposed Project. The rest of the Playground would be shadowed due to existing buildings to the west.

In summer, the Proposed Project would not cast any shadow on the Playground from sunrise until approximately 10:00 a.m. Starting at 10:00 a.m., the Proposed Project would cast minimal new shadow on the Playground's southern boundary in the morning, including a very small southern section of the turf field, but not the court areas. The minimal new shadow would continue along the southern boundary throughout the day. The largest shadow cast by the Proposed Project on the Playground during the summer would occur at 1:15 p.m. and would cover approximately 1,095 square feet. By 5:00 p.m., the Proposed Project would not cast any new shadow on the Playground. Shadow cast by existing buildings starts at approximately 4:00 p.m. along the western boundary of the Playground. Shadows cast on the Playground after 5:00 p.m. would be due entirely to existing buildings.

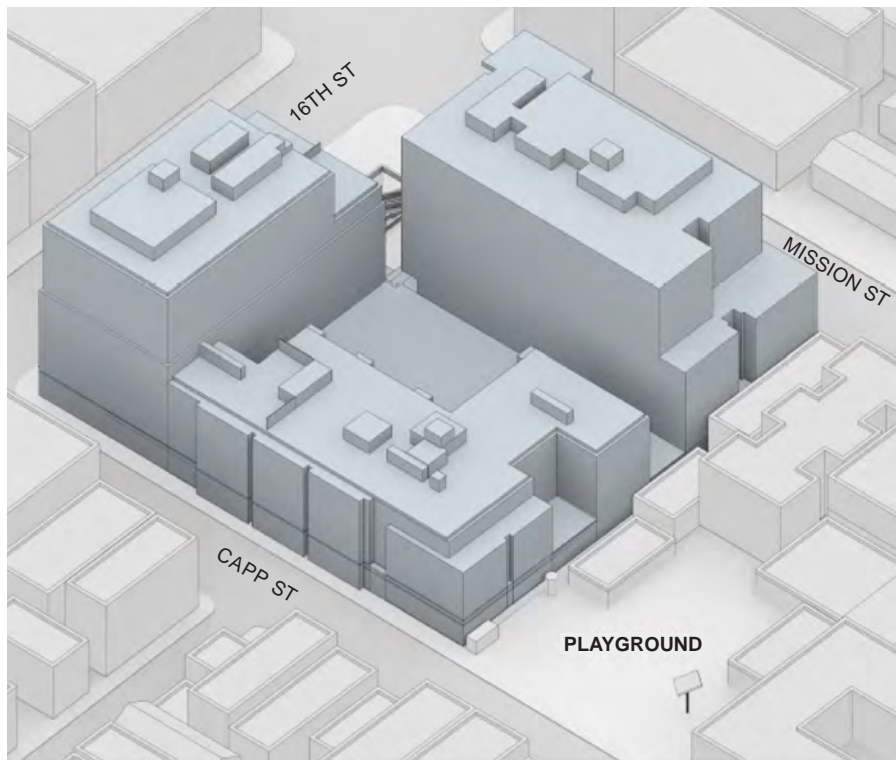
b. No New Shadow Alternative

As part of developing alternatives that would reduce or avoid the Proposed Project's shadow impact, a No New Shadow Alternative (shown on Figure 6-2) was prepared to determine the height of development that could be built on the project site that would not result in new shadow on the Playground. The resulting No New Shadow Alternative would have 105 residential units, about 226 units fewer than the project design under the Proposed Project. The height of the Mission Street residential component and the height of the Capp Street residential component would be substantially reduced, as shown on Figure 6-2. Under this alternative, the Mission Street component would only have a 15 foot high ground floor retail space with no residential units (163 fewer residential units than those under the Proposed Project). The ground floor of the Capp Street residential component would be set back 75 feet from the northern property line. The second setback would be 92 feet from the north property line at the second floor. The third setback would be 127 feet from the north property line at 35 feet height. The Capp Street residential component would have 23 residential units, which would be 55 residential units fewer than those under the Proposed Project. The 16th Street residential component would have eight residential levels and 82 residential units, which would be eight fewer units than those under the Proposed Project.

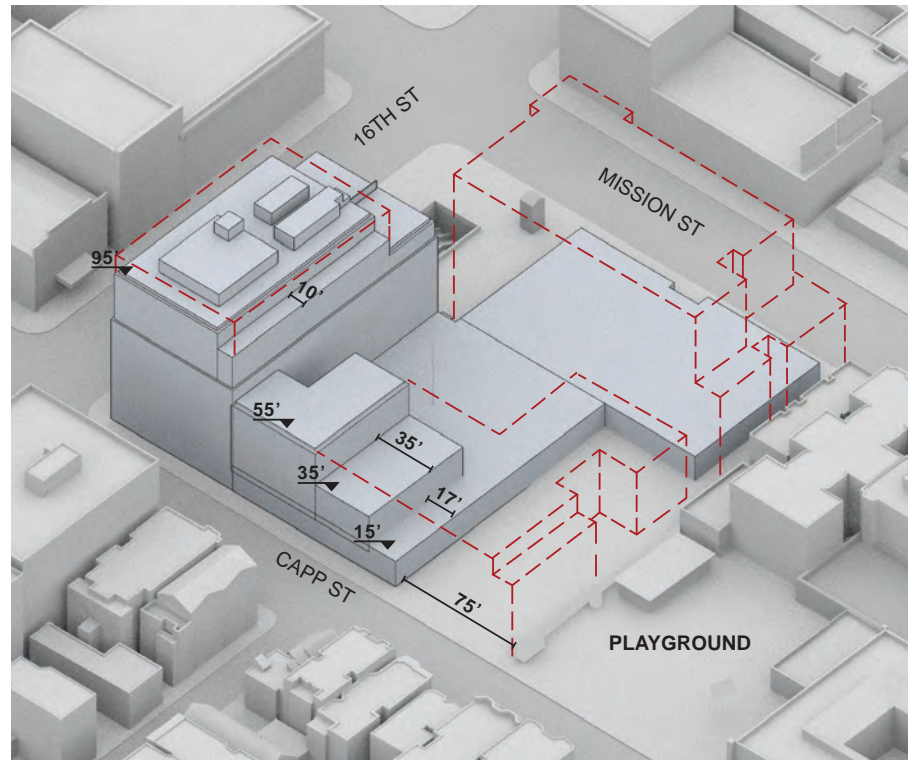
The No New Shadow Alternative would not achieve the Project Sponsor's objectives. It would not advance the City's policies of (1) encouraging and allowing high density mixed use development at a transit hub, such as the project site, which is adjacent to a BART station and Muni transit lines, and (2) constructing housing at the development density anticipated by the Mission Area Plan. This alternative would further substantially reduce the number of market rate and affordable housing units provided by the Proposed Project. This alternative was rejected from further consideration in this EIR because it would not meet the sponsor's objectives and further analysis would not provide additional information for decisionmakers.

c. Alternative Development

Based on the characterization of the shadow as described above, reducing the size of the Capp Street residential component would have the greatest reduction in shadow impact on the Playground. Reducing the size of the Mission Street residential component would have a smaller reduction in shadow impact during the recess and lunch time (between 10:00 a.m. and 1:00 p.m., and reducing the size of the 16th Street residential



Proposed Project



No Shadow Alternative

Not to Scale

Source: Skidmore, Owings & Merrill LLP, 2015.

NO NEW SHADOW ALTERNATIVE

1979 Mission Street Project
San Francisco, California

FIGURE 6-2

component would have minimal shadow reduction. Also, given that there is no existing structure on the Capp Street side of the project site (surface parking lot), even developing the project site with a 40-foot-tall building, as is typical in the project area, would add a substantial amount of shadow on the Playground (see Figure 6-3). As described under the characterization of shadow above, the largest area of shadow resulting from the Proposed Project would be in the winter, and would gradually decrease during the other seasons. In addition, shadow cast on the Playground before 1:00 p.m. would mostly result from the Proposed Project. Existing buildings start to cast shadow on the Playground after 1:00 p.m. By approximately 5:00 p.m., most of the shadow would be from existing buildings. Therefore, development of alternatives focused on reducing the shadow resulting from the Proposed Project before 1:00 p.m., and in particular during the lunch and recess time between 10:00 a.m. and 1:00 p.m.

Five additional alternatives were developed, four of which would reduce shadow impacts on the Playground and one of which is provided for informational purposes to comply with the bulk designation for the project site. Alternative C would reduce the overall shadow on the Playground by raising the Playground by 15 feet in height, thereby reducing the amount of shadow on the play area from existing buildings, and decreasing the total shadow load with the Proposed Project. Alternatives D, E, and F would reduce the overall shadow on the Playground by reducing the Proposed Project's massing in select portions of the building components. These alternatives are analyzed in this chapter. Alternative B (Bulk Code Compliant Alternative) would comply with the Planning Code regulations for the E bulk district, the bulk district designation for the project site. However, this alternative would not reduce the shadow on the Playground. The shadow analysis included herein is based on an evaluation of the project alternatives conducted by CADP.⁶

3. Methodology of Shadow Impacts

Shadow impacts that would result from the project alternatives are described quantitatively as a percentage of TAAS. In addition, a narrative qualitative analysis is provided to describe the size of new shadow, time of the year, times and duration in a given day, and location of new shadow in relation to the different Playground activities.

The shadow analysis included in this chapter is based on an evaluation conducted by CADP of the new shadow that would result from construction of the alternatives to the Proposed Project, as well as a consideration of how the new shadow would affect the use and enjoyment of the affected areas.⁶ The shadow study uses an accurately Geo-located 3D computer model of the alternatives, the Playground, and the surrounding urban environment to simulate and calculate both existing amounts of shading and levels of shading that would be present with the addition of the project alternatives, from 1 hour after sunrise through 1 hour before sunset. Between these boundary times, snapshot analyses are performed at 15 minute intervals, and this process is repeated every 7 days between the summer and winter solstices. This half-year is referred to as a "solar year" for the purposes of the analysis, and the data taken from these 27 sample dates throughout the course of the solar year are then mirrored with interim times and dates extrapolated to arrive at the full year shading calculation. The difference between the current levels of shading and the levels of shading that would be present with the addition of the Proposed Project yields the total annual increase, measured in square foot hours (sfh) of shade. This increase is shown as a percentage

⁶ CADP, 2016. Shadow Evaluation of Alternatives for the 1979 Mission Street. Prepared for Maximus Real Estate Partners. November.



December 21 – 40' Building

Not to Scale

Source: Skidmore, Owings & Merrill LLP, 2016.

SHADOW IMPACTS FROM A 40 FOOT BUILDING

1979 Mission Street Project
San Francisco, California

FIGURE 6-3

of total theoretical sfh of sun (TAAS) on the Playground (the amount of sun that would fall on the Playground throughout the year if there were no shading present at any time). The TAAS is calculated by multiplying the area of the park or open space in square feet by 3,721.4 (the maximum number of hours of sunlight available on an annual basis in San Francisco). To determine the Playground's TAAS, the 14,676 square foot existing Playground area was multiplied by 3,721.4 to arrive at 54,615,706 sfh. The Playground currently has a "shadow load" of 12,061,131 sfh under existing conditions, which represents 22.08 percent of its TAAS.

Annual shadow impacts are analyzed and compared with those of the Proposed Project. As noted above, the analysis describes the shadow throughout the year but also focuses on the shadow impacts in relation to the different activities on the Playground between 10:00 a.m. and 1:00 p.m., when the Playground is used more intensively.

4. Evaluation of Alternatives

The following sections analyze the impacts associated with the Alternatives to the Proposed Project.

A. Alternative A – No Project Alternative

1. Description

Under the CEQA-required No Project Alternative, the site would generally remain in its existing condition and would not be redeveloped with a mixed use building. This alternative would avoid impacts associated with construction of a new building, and the effects associated with a larger building on the project site. The two existing one story buildings and the 25,210 square foot surface parking lot on the site would remain. Under this alternative, the project site would continue to contain two buildings ranging in height from 23 to 30 feet and comprising approximately 50,915 gross square feet (gsf) of retail pharmacy, restaurants, grocery store, a bar, and vacant retail space.

Because the physical environment of the site would remain unchanged, the No Project Alternative would not achieve any of the Project Sponsor's objectives for the Project, including but not limited to development of a mixed use residential project in close proximity to a transit hub, providing high quality housing, new employment opportunities, and streetscape improvements.

2. Impacts

a. Wind

Under the No Project Alternative, the wind conditions in the vicinity of the project site would remain the same as under Existing Conditions. As described in Chapter 4.B (Wind and Shadow), Section 4c., (Impact Evaluation [see page 4.B-5]), under existing conditions, wind speeds at 28 of the 50 measurement locations exceed the 11 mph comfort criterion established by Planning Code Section 148. Under the Proposed Project, the 11 mph comfort criterion would be exceeded at 22 of the 50 measurement locations. In addition, under the No Project Alternative, winds would exceed the 26 mph hazardous wind criterion for a single full hour annually at the northeastern corner of 16th and Capp Streets. This hazardous wind condition at the northeastern corner of 16th and Capp Streets would not occur with the Proposed Project.

b. Shadow

The No Project Alternative would not cast new shadow on open space facilities in the vicinity of the project site, including the Playground and outdoor learning area and the Northeast and Southwest BART Plazas at the 16th Street Mission BART Station. Significant and unavoidable shadow impacts on the Playground that would result under the Proposed Project would be avoided under this alternative, and the Playground would remain shaded approximately 22 percent of the time.

c. Geology and Soils

Under the No Project Alternative, construction within the BART ZOI would not occur. No impacts related to geology and soils would occur under this alternative. Unlike the Proposed Project, implementation of Mitigation Measure M-GE-3: Design Approval and Construction Monitoring for BART Subway Structure, described in Chapter 4.C (Geology and Soils), Section 4.c– (Impact Evaluation [pages 4.C-12 and 4.C-13]), would not be required.

d. Resource Topics Analyzed in the Community Plan Exemption Checklist

Under the No Project Alternative, the existing onsite structures would not be demolished, and a mixed use building that includes three residential components (Capp Street, 16th Street, and Mission Street) and ground floor retail would not be constructed. This alternative would not include any demolition, excavation, or construction activities. Therefore, it would have no impacts to the following environmental topics analyzed in Community Plan Exemption (CPE) Checklist (Appendix A): land use and land use planning, population and housing, cultural and paleontological resources, transportation and circulation, noise, air quality, greenhouse gas emission, recreation, utilities and service systems, public services, biological resources, hydrology and water quality, hazards and hazardous materials, minerals and energy resources, and agriculture and forest resources.

B. Alternative B – Bulk Code Compliant Alternative

1. Description

Similar to the Proposed Project, all existing on site structures would be demolished under Alternative B, and the project site would be redeveloped with a mixed use building that includes three residential components (Capp Street, 16th Street, and Mission Street) and ground floor retail along Mission Street and 16th Street. The Bulk Code Compliant Alternative would comply with Planning Code Section 270 Bulk Limitations governing the maximum length and maximum diagonal dimensions of buildings above 65 feet and is being provided for informational purposes. It is not a CEQA alternative and is not intended to address significant environmental effects of the Proposed Project.

- Capp Street Residential component. Under Alternative B, unlike the Proposed Project, the fifth floor of the Capp Street residential component would not be set back from the northern property line.
- 16th Street Residential component. Above a height of 65 feet, the 16th Street residential component under Alternative B would be set back 40 feet from the Northeast BART Plaza; in comparison, the Proposed Project would have a 40-foot setback above a height of 75 feet. Below a height of 65 feet, the 16th Street residential component under Alternative B would be identical to the Proposed Project.

- Mission Street Residential component. Above a height of 65 feet, the Mission Street residential component under Alternative B would be set back 6 feet from the Mission Street property line, 45 feet from the northern property line, and 25 feet from the common property line with the Northeast BART Plaza. The Proposed Project would have the same setback from the Mission Street property line (6 feet) as Alternative B. However, above a height of 65 feet, the Proposed Project would have a setback ranging from 17.5 to 30 feet from the northern property line (compared to 45 feet under Alternative B) and a 10-foot setback from the Northeast BART Plaza (compared to 25 feet under Alternative B). To meet the bulk limitation requirements, the corner of the Mission Street residential component would have chamfered corners.⁷ Below a height of 65 feet, the southwestern corner of the Mission Street residential component under Alternative B would have a 90 degree angled corner (see Figure 6-4).

This alternative would also include a privately owned publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project.

Construction duration for Alternative B would be approximately 21 months, similar to that of the Proposed Project, and the construction activities for this alternative would also require truck trips and construction equipment similar to those for the Proposed Project.

Alternative B would require the same approvals listed for the Proposed Project in Chapter 2 under Section 2 on pages 2-36 through 2-37, except for the conditional use authorization and deviations from the Planning Code pursuant to Section 270. This alternative would comply with Planning Code 270 and would not require deviation from Planning Code Section 270 for the bulk limitations.

2. Impacts

a. Wind

Under the Bulk Code Compliant Alternative, the Mission Street residential component above 65 feet would be set back 25 feet from the southern property line. The chamfered corners of this residential component and the wide setback above 65 feet from the main façade facing the Northeast BART Plaza would help reduce downwashing of winds⁸ (see Appendix D). The massing below 65 feet would be taller than most of the surrounding buildings to the west and the northwest. Without chamfered corners up to this elevation of 65 feet, winds would slightly accelerate and flow into the Northeast BART Plaza.

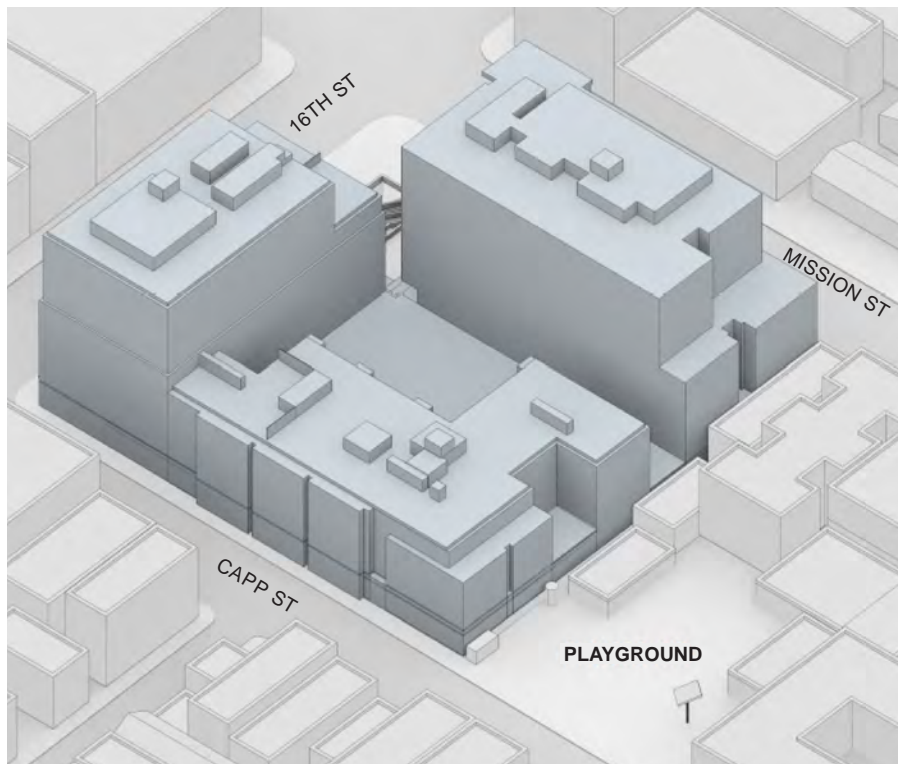
Overall, the wind conditions under Alternative B are expected to be less than significant, similar to those under the Proposed Project. The contribution of this alternative to cumulative wind impacts would be less than significant, similar to that of the Proposed Project, and for the same reasons as the Proposed Project.

b. Shadow

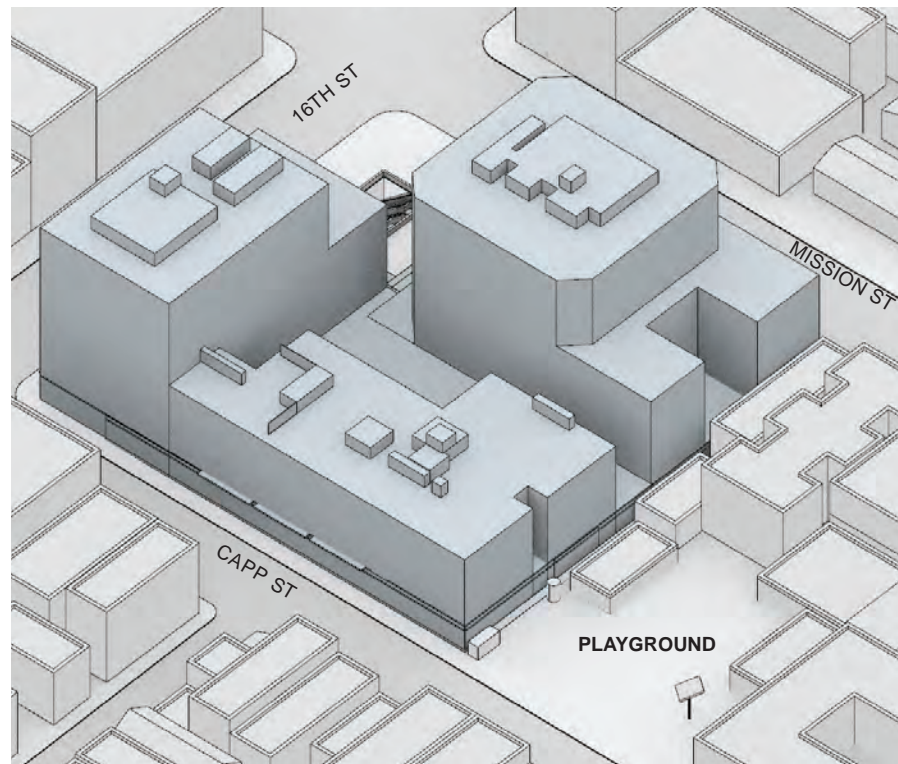
Because the 16th Street residential component under Alternative B would be set back 40 feet from the Northeast BART Plaza above a height of 65 feet compared to a similar setback above a height of 75 feet under the Proposed Project, Alternative B would cast slightly less shadow on the Northeast BART Plaza than would the Proposed Project, which would be in the sun earlier in the day. Alternative B would have shadow impacts on the Southwest BART Plaza similar to those identified for the Proposed Project.

⁷ Chamfered corners are flat surfaces resulting from cutting off the edge of a volume.

⁸ RWDI, 2016. Pedestrian Wind Study – Review of EIR Alternatives 1979 Mission Street San Francisco, California. February 18.



Proposed Project



Alternative B

Not to Scale

Source: Skidmore, Owings & Merrill LLP, 2015.

**ALTERNATIVE B
BULK CODE COMPLIANT ALTERNATIVE**

1979 Mission Street Project
San Francisco, California

FIGURE 6-4

Alternative B would result in a new shadow load of 20.35 percent of TAAS (11,051,242 sfh) on the Playground (see Table 6-2). The total shadow load on the Playground under Alternative B would be 42.43 percent of TAAS, which is a reduction of 1.22 percent from the total shadow of 43.65 percent under the Proposed Project. This small reduction in shadow under the Bulk Code Compliant Alternative would result from the 45 foot setback of the Mission Street residential component from the northern property line above 65 feet. With the deeper setback from the north property line, the Playground would experience slightly less shadow in the afternoon hours (after 1:00 p.m.). However, the new shadow from the Capp Street residential component would increase in the morning and afternoon because, unlike the Proposed Project, the fifth floor would not be set back 13 feet from the northern property line. Similar to the Proposed Project, this alternative would result in significant unavoidable shadow impacts on the Playground and would contribute considerably to significant cumulative shadow impacts at the Playground, for the same reasons as described in Section 4.B.8.d. There are no feasible mitigation measures for this shadow impact other than a different building design and massing.

Therefore, unlike the Proposed Project in combination with past, present, and reasonable foreseeable projects, Alternative B would result in a cumulatively considerable significant and unavoidable shadow impact.

Table 6-2
Summary Table
Annual Shadow Load on Marshall Elementary School Playground

Scenario	New Shadow Load (square foot hours)	New Shadow (percentage of TAAS)	Total Shadow Load (square foot hours)	Total Shadow (percentage of TAAS)
Existing Shadow Conditions	N/A	N/A	12,061,131	22.08
Proposed Project	11,785,129	21.57	23,846,260	43.65
Alternative B	11,051,242	20.35	23,112,373	42.43
Alternative C	11,203,056	20.95	15,360,603 ¹	28.70
Alternative D	9,276,878	16.99	21,338,009	39.07
Alternative E	6,257,143	11.46	18,318,274	33.54
Alternative F	4,814,316	8.82	16,875,447	30.90
Notes: N/A = Not applicable. TAAS = The amount of theoretically available annual sunlight on a park or playground is calculated by multiplying the area of the park (in square feet) by the total hours of sunlight available on an annual basis, ignoring shadows from structures or other natural phenomena, such as clouds, fog, or solar eclipses, that may obscure sunlight. For San Francisco, there are approximately 3,721.4 hours of sunlight available on an annual basis. ¹ Raising the surface of the Playground under this alternative which would decrease the amount of shadow on the Playground from existing buildings.				

c. Geology and Soils

Similar to the Proposed Project, the mixed use building under Alternative B would be partially sited within the BART ZOI, and could result in adverse effects on the BART subway during construction or operation if it is not properly designed and constructed. Similar to the Proposed Project, implementation of Mitigation Measure M-GE-3: Design Approval and Construction Monitoring for BART Subway Structure, described in Chapter 4.C (Geology and Soils), Section 4.c– (Impact Evaluation [pages 4.C-12 and 4.C-13]), would ensure that these impacts would be less than significant with mitigation. The contribution of this alternative to cumulative impacts to geology and soil would be less than significant, similar to that of the Proposed Project and for the same reasons as the Proposed Project.

d. Resource Topics Analyzed in the Community Plan Exemption Checklist

Alternative B would have demolition, excavation, and construction activities similar to those of the Proposed Project. Similar to the Proposed Project, Alternative B would include the demolition of the two existing commercial buildings and surface parking lot on the project site. Also similar to the Proposed Project, Alternative B would include the construction of a new, five to ten story mixed use building with a maximum height of 105 feet, exclusive of the mechanical penthouse. In addition, Alternative B would have a similar number of residential units and retail spaces. Vehicular and pedestrian access to the project site under Alternative B would be similar to that of the Proposed Project. Therefore, Alternative B would have impacts similar to those of the Proposed Project, as analyzed in the CPE Checklist (Appendix A), for the following environmental topics: land use and land use planning, population and housing, cultural and paleontological resources, transportation and circulation, noise, air quality, greenhouse gas emission, recreation, utilities and service systems, public services, biological resources, hydrology and water quality, hazards and hazardous materials, minerals and energy resources, and agriculture and forest resources. Similar to the Proposed Project, Alternative B would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR, and Mitigation Measures and Improvement Measures applicable to the Proposed Project and documented in the CPE Checklist (Appendix A) would be applicable to Alternative B.

e. Conclusion

Alternative B would meet the requirements of the E bulk district. The portions of the site along Mission and 16th Streets are in the 105-E height and bulk district, and the portion of the site along Capp Street is in the 55-X height and bulk district. This alternative design—with a maximum height of 105 feet, 331 residential units, and ground floor retail uses—would meet the Project Sponsor's objectives regarding the development of a mixed use building with high quality housing in close proximity to transit, new employment opportunities, and improvement to the quality and safety of the Northeast BART Plaza and streetscape near the project site. This alternative would also meet the project sponsor's objective of constructing a project with the residential development density anticipated by the Mission Area Plan for this site.

Under the Bulk Code Compliant Alternative, the inner court open space would be reduced to 1,400 square feet, while the Proposed Project would have an inner court of 4,545 square feet. Therefore, this alternative would not comply with Planning Code⁹ requirements for common open space for the residential units, nor provide a transition from the lower buildings north of the project site to the ten

⁹ Planning Code Section 736.93 requires the provision of 100 square feet of common open space per residential unit.

story portion of the Mission Street residential component. Therefore, the Bulk Code Compliant Alternative would require an exception from the residential open space requirements of Planning Code Section 135.

Similar to the Proposed Project, Alternative B would result in less than significant wind impacts, significant and unavoidable shadow impacts, and less than significant impacts related to geology and soils. In addition, similar to the Proposed Project, Alternative B would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR and documented in the CPE Checklist. This alternative would not reduce the significant shadow impact of the Proposed Project.

C. Alternative C – Raised Playground Alternative

1. Description

Under the Raised Playground Alternative, the Proposed Project would be developed on the project site with residential units above ground floor retail space, off-street vehicular and bicycle parking and building services in the basement, and usable open space (see Figure 6-5). This alternative would also include a privately owned, publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project.

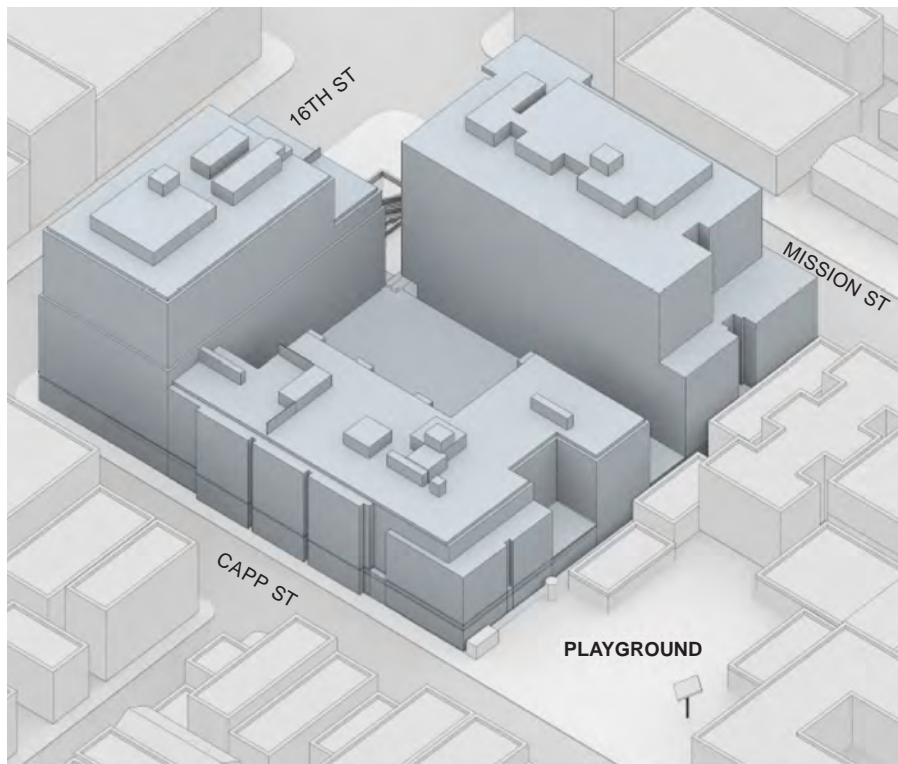
Under this alternative, the existing Playground and the school's one story multi-use room would be demolished, and the temporary modular building housing the library as well as the rainwater tank and photovoltaic tree would be removed. A new 15-foot high, one-story structure would be built on the school property with a new playground (Raised Playground) on the roof (see Figure 6-5). Implementing the Raised Playground Alternative would require the Project Sponsor and SFUSD to agree on and execute an agreement whereby the Project Sponsor would undertake the demolition and construction activities on the school property as described above.

Although not a certainty, construction of the Raised Playground Structure is anticipated to occur concurrently with construction of the Proposed Project, and is estimated to take approximately 3 months to complete. Implementation of Phases 1 through 3 as described below is anticipated to occur during the summer when school is not in session. It is anticipated that the sidewalk and parking lane would be closed during Phases 1, 2, and 3.

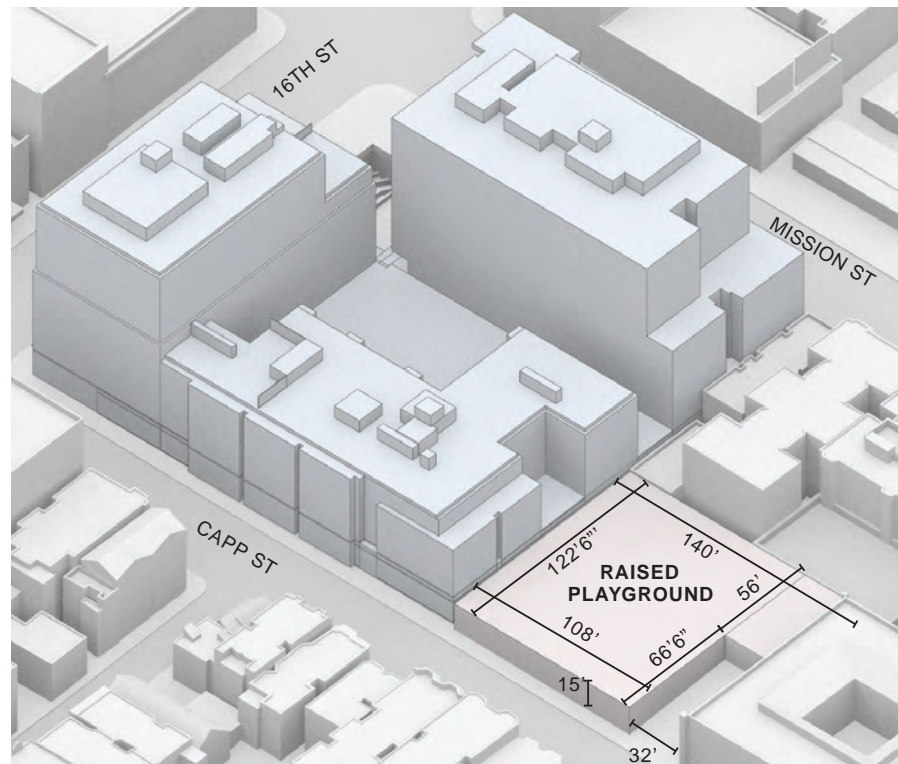
Phase 1 – Demolition. Phase 1 would be expected to take approximately 2 weeks to complete and would generate approximately 20 truck trips to demolish the approximately 13 foot high one story portion of the existing school, and to remove the temporary building, the temporary storage containers, the above grade rainwater tank at the south end of the Playground, and the photovoltaic tree. There would be an average of eight workers at the site daily during this phase.

Phase 2 – Excavation. Phase 2 would be expected to take approximately 1 week to complete. Approximately 300 cubic yards of soil would be excavated and would generate approximately 40 truck trips. There would be an average of eight workers at the site daily during this phase.

Phase 3 – Foundation, floors, side walls and roof Playground for the one story building. Phase 3 would be expected to take approximately 6 weeks to complete and would generate approximately 30 truck trips. There would be an average of 12 workers at the site daily during this phase.



Proposed Project



Alternative C

Not to Scale

Source: Skidmore, Owings & Merrill LLP, 2015.

ALTERNATIVE C RAISED PLAYGROUND ALTERNATIVE

1979 Mission Street Project
San Francisco, California

FIGURE 6-5

Phase 4 – Interior work, Playground topping and fencing. Phase 4 would generate approximately 30 truck trips and would require an average of 20 workers at the site daily. Phase 4 would overlap by 2 weeks with Phase 3.

Under this alternative, the ground floor of the proposed Raised Playground structure would be used for additional school programs. Uses of the new structure may include a new multi-purpose room, a music room, a library, a classroom, storage space, an area for trash, recycling, and compost bins, and parking for up to eight cars. The final plans and use of the ground floor would be determined by the SFUSD. The northeastern corner of the existing Playground would remain open to create an at grade open air entry to the school. The 14,365 square foot Raised Playground would be approximately 300 square feet (2 percent) smaller than the 14,664 square foot existing at grade Playground. The reduction in shadow as a result of this alternative would be achieved primarily through elevating the Playground rather than modifying the proposed building.

Alternative C would require the same approvals listed for the Proposed Project in Chapter 2 under Section 2 on pages 2-36 through 2-37. In addition, as noted above, Alternative C would require a legally enforceable agreement between the SFUSD and the project sponsor to demolish the existing Playground and one story multi-use room, remove the modular building housing the library, and construct a new 15-foot-high, one-story structure on the school property with a new Raised Playground on the roof. In addition, a permit application and plans for the Raised Playground structure would need to be submitted to the California State Architect for review and approval.

2. Impacts

a. Wind

Under Alternative C, the Raised Playground would have a height of 15 feet above existing grade, while the project site would be developed as described for the Proposed Project. The existing Playground, which is at grade, would be sheltered by the Proposed Project from the predominant westerly winds. The Raised Playground would still be lower in height than the Proposed Project, and would continue to be sheltered from the predominant winds. The existing buildings to the west and the Raised Playground would shield the adjacent sidewalk on the western side of Capp Street from the predominant winds. There would be a slight reduction in wind speeds on the Capp Street sidewalk under this alternative when compared to the Proposed Project. Wind speeds at all other locations around the project site would be similar to the Proposed Project. Therefore, the wind impacts of Alternative C would be less than significant. The contribution of this alternative to cumulative wind impacts would be less than significant, similar to that of the Proposed Project, and for the same reasons as the Proposed Project (see Appendix D).

b. Shadow

The new shadow on the Raised Playground under Alternative C would be 20.95 percent of TAAS, and the total shadow load would be 28.7 percent of the TAAS. The existing Playground at ground level is currently shaded approximately 22.08 percent of the time. Therefore, Alternative C would result in approximately 6.62 percent (28.7 minus 22.08) more shaded time on the Raised Playground, compared to the existing shadow conditions on the Playground (see Table 6-2). Shadow calculations were also prepared for the hours between 10:00 a.m. and 1:00 p.m., which is the recess and lunch period at the Marshall Elementary School. Under existing conditions, the Playground is largely sunny during this time and has a shadow load of 0.39 percent of TAAS. During recess and lunch time, Alternative C would add approximately 1.75 percent more shaded time on the Raised Playground, and would result in 2.14 percent total shaded time (see Table 6-3).

Table 6-3
Shadow Load on Marshall Elementary School Playground Between 10:00 a.m. and 1:00 p.m.

	New Shadow Load 10 a.m. to 1 p.m. (square foot hours)	New Shadow Load 10 a.m. to 1 p.m. (percentage of TAAS)	Total Shadow Load 10 a.m. to 1 p.m. (percentage of TAAS)
Proposed Project	435,156	2.71	3.1 ¹
Alternative C	275,237	1.75	2.14 ²
Alternative D	327,258	2.04	2.43 ¹
Alternative E	139,150	0.87	1.26 ¹
Alternative F	120,308	0.75	1.14 ¹
Notes:			
N/A = Not applicable			
TAAS = Theoretically Available Annual Sunlight			
TAAS for the Playground during the time period between 10 a.m. and 1 p.m. is 16,058,175 square foot hours.			
¹ Existing shadow load between 10:00 a.m. and 1:00 p.m. is 61,836 sfh (or 0.39 percent of TAAS).			
² The Raised Playground would have a surface area 300 feet smaller than the existing Playground.			

Alternative C would cast new shadow on the Playground throughout the year, with the largest area of shadow cast on December 20 (see Appendix E, Exhibit H.1). During the winter, Alternative C would cast new shadow on the Raised Playground from approximately 8:30 a.m. through 3:54 p.m. Starting at 8:00 a.m., the new shadow in the winter season would cover the southwestern corner of the Raised Playground, where most of the turf field and a portion of the foursquare game area are located. By 10:00 a.m. in the winter, the new shadow under Alternative C would cover approximately the southern half of the Raised Playground. Under Alternative C, the largest new shadow during winter would occur at 1:00 p.m., and would be approximately 8,297 square feet in size (see Appendix E, Exhibit H.1). At 2:00 p.m., the majority of the Raised Playground would be covered in shadow, except for the northeastern corner. Most of the shadow at 2:00 p.m. would result from Alternative C, but there would also be some shadow from existing buildings to the west of the Raised Playground. The shadow from existing buildings would combine with shadow under Alternative C in such a way that by 2:30 p.m., the Raised Playground would be entirely in shade.

The new shadow cast by Alternative C from 8:00 a.m. until 2:00 p.m. in the spring/autumn would mostly result from the Capp Street residential component, and would be located at the southernmost portion of the Raised Playground covering the southwestern corner and a section of the foursquare game area (see Appendix E). The largest new shadow under Alternative C in the spring/autumn would be 2,404 square feet and would occur at 1:00 p.m. After 2:00 p.m., shadow from existing buildings located to the west of the Raised Playground begin to shade the center of the western portion of the Raised Playground and move across the Raised Playground to the east. At the same time, the Mission Street residential component would cast new shadow on a larger portion of the southwestern corner of the Raised Playground, and increase toward the foursquare game area until 5:00 p.m., after which the shadows from Alternative C would decrease. By 1 hour before sunset, most of the shadow on the Raised Playground would be from existing buildings.

The new shadow cast by Alternative C in the summer would occur between 9:00 a.m. and 4:00 p.m. The largest shadow cast by Alternative C on the Raised Playground during the summer would occur at 12:45 p.m., and would cover approximately 669 square feet. The new shadow on the Raised Playground during this season would be minimal in size and located along the southern property line.

Overall, under Alternative C the Raised Playground would be shaded approximately 28.7 percent of the time. During the winter, the Raised Playground would be half shaded until 1:00 p.m. by Alternative C,

and almost fully shaded for the rest of the day by Alternative C in combination with existing shadow from the buildings to the west. This would affect all of the recreational areas on the Raised Playground, especially between 10:00 a.m. and 1:00 p.m. In the spring/autumn, Alternative C would increase shadow along the southern portion of the Raised Playground between 10:00 a.m. and 1:00 p.m., partially shading the turf field and foursquare game area. For these reasons, total shadow under Alternative C would adversely affect the Raised Playground, and shadow impacts would be significant.

There is no feasible available mitigation for Alternative C's shadow impact on the Raised Playground. Any potential mitigation would fundamentally alter the Project's basic design. In addition, because the existing buildings on the project site are one story plus mezzanine and there is a surface parking lot immediately adjacent to the Playground, any multi-story development on the project site would likely have substantial shadow impacts on the Playground.

The shadow analysis shows that Alternative C would create new shadow in a manner that would substantially affect the Raised Playground, and the impact would be significant and unavoidable.

Cumulative Shadow Impacts under Alternative C

Other reasonably foreseeable development projects in the immediate project vicinity are listed in Section 4.A.3 under Approach to Cumulative Analysis. However, none of these projects would cast a shadow on the Playground. Currently, the Playground is shaded 22.08 percent of the time, mostly starting at 1:00 p.m. and lasting until sunset. Cumulative shadow impacts from past and present projects and Alternative C would be cumulatively significant. Alternative C would significantly contribute to cumulative shadow impacts (6.62 percent of TAAS) by shading the Raised Playground mostly in the morning until 1:00 p.m., during recess and lunch time, with the greatest shadow occurring in the winter. Therefore, Alternative C's shadow impacts at the Raised Playground would be cumulatively considerable, and cumulative impacts would be significant and unavoidable.

Shadow Impacts of Alternative C Compared to the Proposed Project

New shadow on the Raised Playground under Alternative C would be 20.95 percent of TAAS, similar to that of the Proposed Project, which would add 21.57 percent shaded time on the existing Playground. However, the total shaded time on the Raised Playground under Alternative C (28.70 percent of TAAS) would be 14.95 percent less than that on the existing Playground under the Proposed Project (43.65 percent of TAAS) (see Table 6-2). This is because raising the height of the Playground would reduce the shadow on the Raised Playground from existing buildings.

Between 10:00 a.m. and 1:00 p.m., total shaded time on the Raised Playground under Alternative C would be 0.96 percent less than the total shaded time on the existing Playground under the Proposed Project on an annual basis. During this time period, Alternative C would result in 2.14 percent total shaded time on the Raised Playground, and the Proposed Project would result in 3.1 percent shaded time on the existing Playground (see Table 6-3).

Similar to the Proposed Project, Alternative C would cast new shadow on the Raised Playground throughout the year, with the largest area of shadow occurring on December 20. During the winter, under Alternative C, most of the southern half of the Raised Playground would be shaded throughout the day and would become fully shaded after 2:30 p.m., due to Alternative C in combination with shadow from existing buildings. Similarly, the existing at grade Playground would be mostly shaded under the Proposed Project in the winter throughout the day, except for a small section at the northeastern corner, which would remain sunny until 2:00 p.m. The largest area of shadow in the winter between 10:00 a.m. and 1:00 p.m. under Alternative C would be 8,297 square feet. It would occur at 1:00 p.m., and would

cover the southern half and the western edge of the Raised Playground. The largest area of shadow during that time period under the Proposed Project would occur at 12:15 p.m. and would be 10,123 square feet. It would cover the southern two thirds of the existing Playground, including the foursquare game area, kickball diamond, basketball hoop, and most of the turf field.

In the autumn/spring, the new shadow cast by Alternative C would cover the southwestern corner of the Raised Playground and a section of the foursquare game area starting at 8:00 a.m. and lasting until 5:00 p.m. (see Exhibits H.1 and H.2 in Appendix E). Similarly, the new shadow cast by the Proposed Project during this time period would cover the southern portion of the existing Playground starting at 8:00 a.m., and would increase slowly throughout the day until 5:00 p.m. The largest area of shadow cast by Alternative C on the Raised Playground between 10:00 a.m. and 1:00 p.m. in the autumn/spring would be 2,404 square feet, and would occur at 1:00 p.m. The largest area of shadow cast by the Proposed Project during the same time period would be 3,584 square feet, and would also occur at 1:00 p.m.

In the summer, a small area would be shaded along the southern boundary of the Raised Playground under Alternative C or the existing Playground under the Proposed Project. However, new shadow on the Raised Playground that would result under Alternative C would be slightly less than the new shadow cast by the Proposed Project on the existing Playground (see Exhibits H.1 and H.2 in Appendix E).

As discussed above, similar to the Proposed Project, Alternative C's shadow impacts at the Raised Playground would be cumulatively considerable, because Alternative C would add shadow on the Raised Playground mostly from the morning until approximately 1:00 p.m., with the greatest shadow in the winter. Therefore, Alternative C's contribution to cumulative shadow impacts on the Raised Playground would be significant. However, Alternative C would contribute to significant shadow impacts to a lesser extent than the Proposed Project. Therefore, although significant, cumulative shadow impacts under Alternative C would be less than those under the Proposed Project.

Shadow Impacts Summary of Alternative C

Alternative C would reduce the shadow impact compared to the Proposed Project (see Table 6-4). The impact would be reduced because under Alternative C the Playground would be raised by 15 feet. This would slightly reduce shadow due to the proposed building, but would also result in less shadow on the Raised Playground attributable to existing buildings. Alternative C would shade the Raised Playground approximately 28.7 percent of the time, in locations similar to those shaded by the Proposed Project, shading the turf field and foursquare game area. Therefore, similar to the Proposed Project, Alternative C would result in significant unavoidable project level and cumulative shadow impacts, though the impacts would be reduced compared to the Proposed Project. As with the Proposed Project, there are no feasible mitigation measures other than to redesign the proposed building.

c. Geology and Soils

Similar to the Proposed Project, the mixed use building under Alternative C would be partially sited within the BART ZOI, and could result in adverse effects on the BART subway during construction or operation if it is not properly designed and constructed. As with the Proposed Project, implementation of Mitigation Measure M-GE-3: Design Approval and Construction Monitoring for BART Subway Structure, described in Section 4C Geology and Soils – Section C – Impact Evaluation (pages 4.C-13 and 4.C-14), would ensure that these impacts would be less than significant with mitigation.

The contribution of this alternative to cumulative impacts to geology and soil would be less than significant with mitigation, similar to that of the Proposed Project, and for the same reasons as the Proposed Project.

Table 6-4
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the EIR

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
IMPACTS							
Wind and Shadow							
Wind	Impact WS-1: The Proposed Project would not alter wind in a manner that substantially affects public areas in the vicinity of the project site. (LTS)	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Substantially reduced impact compared to the Proposed Project (LTS)
Cumulative Wind	Impact C-WS 1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects, would not alter wind in a manner that substantially affects public areas in the vicinity of the project site. (LTS)	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Substantially reduced impact compared to the Proposed Project (LTS).
Shadow	Impact WS 2: The Proposed Project would create new shadow in a manner that could substantially affect the Marshall Elementary School outdoor recreation facilities and open space. (SU)	No impact (NI).	Similar to the Proposed Project impact (SU).	Similar to, but slightly less than, the Proposed Project impact (SU).	Similar to, but slightly less than, the Proposed Project impact (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).
Cumulative Shadow	Impact C-WS 2: The Proposed Project would have a cumulatively considerable contribution to significant cumulative shadow impacts, substantially affecting outdoor recreation facilities and open space. (Significant and Unavoidable)	No impact (NI).	Similar to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).	Similar to, but slightly reduced impact, compared to the Proposed Project (SU).

Table 6-4
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the EIR (Continued)

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Geology and Soils							
Seismicity and Liquefaction	Impact GE 1: The Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture, ground shaking, liquefaction, or landslides. (LTS)	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Soil	Impact GE 2: The Proposed Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project. (LTS)	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Lateral Surcharge on the BART subway	Impact GE 3: The Proposed Project could impose lateral surcharge pressures on the BART subway. (SM)	No impact (NI).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).
Cumulative Geology and Soils	Impact C-GE 1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects in the vicinity, would not result in a significant cumulative impact related to geology and soils. (LTS)	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Legend NI No impact LTS Less than significant or negligible impact; no mitigation required SM Significant but mitigable SU Significant and unavoidable adverse impact, no feasible mitigation SUM Significant and unavoidable adverse impact, after mitigation BART Bay Area Rapid Transit District							

d. Resource Topics Analyzed in the Community Plan Exemption Checklist

Similar to the Proposed Project, Alternative C would include the demolition of the two existing commercial buildings and surface parking lot on the project site. Identical to the Proposed Project, Alternative C would include the construction of a four to ten story mixed use building with a maximum height of 105 feet, exclusive of the mechanical penthouses, and would have a similar number of residential units and retail spaces. Vehicular and pedestrian access to the project site under Alternative C would be identical to that under the Proposed Project. However, Alternative C would include the demolition of the existing Playground and a one story, multi-use room, removal of the temporary modular building housing the library, located on the Playground, and the construction of a new 15-foot-high, one-story structure on the school property with a new Raised Playground on the roof.

Demolition and construction activities on the school property would occur concurrently with construction of the Proposed Project. Implementation of construction Phase 1 through Phase 3 of Alternative C would be anticipated to occur in the summer when the school is closed. Phases 1 through 3 would include demolition, excavation, and construction of the foundation, floors, side walls and roof supporting the Playground. Phase 4, which would include the interior finish work, and Playground topping and fencing, would overlap with Phase 3 for 2 weeks, and would require an additional 4 weeks to be completed. Alternative C would result in population densities and parking spaces similar to those of the Proposed Project. In addition to the approvals required for the Proposed Project, Alternative C would require the Project Sponsor and SFUSD to agree on and execute an agreement whereby the Project Sponsor would undertake the demolition and construction activities on the school property, as described above. In addition, a permit application and plans of the Raised Playground structure would need to be submitted to the California State Architect for review and approval.

Similar to the Proposed Project, implementation of Alternative C would be consistent with the Eastern Neighborhoods Rezoning and Area Plans, and would result in construction and operation activities similar to those of the Proposed Project. However, demolition of the existing Playground and construction of the Raised Playground under Alternative C would result in slightly higher emissions of criteria pollutants than the Proposed Project, primarily due to construction. As shown in Table 6-5, these emissions would not exceed the criteria pollutant significance thresholds defined by the Bay Area Air Quality Management District. Noise impacts during construction may be higher than those that would be generated by the Proposed Project. The construction equipment used for the Proposed Project would be similar to that used for Alternative C. This may include backhoes, jackhammers, loaders, excavators, chipping hammers, roller concrete trucks, and concrete pumps. Similar to the Proposed Project, construction noise under Alternative C may exceed the San Francisco Noise Ordinance by emitting noise at a level in excess of 80 A-weighted decibels when measured at a distance of 100 feet from such equipment. This would be a significant impact. Similar to the Proposed Project, noise activities during construction of Alternative C would be subject to the San Francisco Noise Ordinance, and mitigation measures identified for the Proposed Project in the CPE Checklist would be applicable. With implementation of the identified noise mitigation measures, noise impacts during construction under Alternative C would be less than significant with mitigation incorporated. Noise during the operation phase under Alternative C would be less than significant, similar to the Proposed Project.

Table 6-5
Construction Emissions under Alternative C

	ROG	NO _x	Exhaust PM ₁₀	Exhaust PM _{2.5}
1979 Mission Street Project Construction	3.48	5.29	0.24	0.23
Raised Playground Construction	0.20	0.38	0.02	0.02
Total Emissions (tons)	3.68	5.67	0.26	0.25
Average Daily Emissions (lbs/day)	15.9	24.5	1.1	1.1
Notes: lbs/day = pounds per day NO _x = oxides of nitrogen PM _{2.5} = particulate matter less than or equal to 2.5 microns in diameter PM ₁₀ = particulate matter less than or equal to 10 microns in diameter ROG = reactive organic gas				

The proposed Raised Playground under Alternative C would not result in a substantially higher number of trips than would be generated by the Proposed Project. Under Alternative C, eight parking spaces would be provided on the ground floor in the new structure of the Raised Playground. Implementation of Alternative C would not alter the activities at the Marshall Elementary School and, similar to the Proposed Project, traffic impacts under Alternative C would be less than significant, and the mitigation measures identified to further reduce the less than significant traffic impacts of the Proposed Project in the CPE Checklist would apply to Alternative C.

Alternative C would not change the activities at the Marshall Elementary School, and therefore would not generate additional transit trips to those identified for the Proposed Project. Therefore, similar to the Proposed Project, Alternative C would have less than significant impacts on transit.

Similar to the Proposed Project, Alternative C would include pedestrian improvements that comply with Planning Code sections to implement the City's Better Streets Policy and Plan, which would enhance pedestrian safety and comfort along Mission, 16th, and Capp Streets. However, in addition to the driveway access point along the western side of Capp Street to access the parking garage at the project site, Alternative C would include a second driveway access to the ground floor parking spaces due to the proposed Raised Playground structure. Vehicle flow in and out of the two driveway access points would be managed via traffic controls, and audible/visual notification would be situated at the parking garage entrance to alert pedestrians of exiting vehicles. Although there would be the potential for additional conflicts between pedestrians and vehicles exiting the school garage, the volume of vehicles exiting the garage would be low and notification measures would ensure awareness of exiting vehicles. Therefore, similar to the Proposed Project, impacts to pedestrians under Alternative C would be less than significant.

Alternative C would have impacts on loading similar to those identified for the Proposed Project. The parking spaces in the ground floor of the new structure of the Raised Playground may be used for garbage pickup activities at the school. Garbage pickup already occurs at the school and would be similar to existing conditions, except that garbage would be stored in the new structure prior to pickup. Therefore, loading impacts under Alternative C would be less than significant. Improvement measures identified for the Proposed Project in the CPE Checklist for move in/move out operations, large deliveries, and garbage pickup operations at the project site would apply to Alternative C, and would reduce the already less than significant loading impacts. Therefore, Alternative C's loading impacts would be less than significant.

Similar to the Proposed Project, traffic related to construction would be temporary and limited in duration. Demolition of the existing Playground and construction of the Raised Playground would be anticipated to

occur simultaneously with the construction of the Project at the project site. Lane and sidewalk closures similar to those under the Proposed Project would be required under Alternative C. Construction traffic impacts as a result of the Proposed Project would be less than significant. However, improvement measures identified for the Proposed Project in the CPE Checklist—to limit construction truck deliveries to off-peak periods and to have a construction management plan—have been agreed to by the project sponsor. These measures would be applicable to the construction of Alternative C. Similar to the Proposed Project, Alternative C impacts on traffic during construction would be less than significant with mitigation.

Alternative C would have impacts similar to those of the Proposed Project, as analyzed in the CPE Checklist (Appendix A), for the following environmental topics: land use and land use planning, population and housing, cultural and paleontological resources, greenhouse gas emission, recreation, utilities and service systems, public services, biological resources, hydrology and water quality, hazards and hazardous materials, minerals and energy resources, and agriculture and forest resources. Similar to the Proposed Project, Alternative C would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR and Mitigation Measures, and Improvement Measures applicable to the Proposed Project and documented in the CPE Checklist (Appendix A) would be applicable to Alternative C (see Table 6-6 on the following page).

e. Conclusion

Under this alternative, the Playground at Marshall Elementary School would be raised by 15 feet, and the project site would be developed as described for the Proposed Project. Therefore, similar to the Proposed Project, Alternative C would achieve all of the Project Sponsor's objectives described in Chapter 2, Section B (pages 2-2 and 2-3).

Similar to the Proposed Project, Alternative C would result in less than significant impacts related to wind. It would result in a significant geology and soils impact that would be mitigated to less than significant with Mitigation Measure M-GE-3, similar to the Proposed Project. In addition, similar to the Proposed Project, Alternative C would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR for all other environmental topics except for shadow. Alternative C would reduce but not avoid the significant project level and cumulative shadow impacts of the Proposed Project.

D. Alternative D – Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)

1. Description

Similar to the Proposed Project, all existing structures on the project site would be demolished under Alternative D, and the site would be redeveloped with a mixed use (residential/retail uses) building that would include three residential components (Capp Street, 16th Street, and Mission Street), ground floor retail along Mission Street and 16th Street, parking, loading, building services, and approximately 28,053 gsf of open space. This alternative would have approximately 327 residential units, which would be four fewer units than the Proposed Project. Under Alternative D, the Mission Street and 16th Street residential components of the building would remain identical to the Proposed Project, but the height of the Capp Street residential component would vary from 35 feet to 65 feet. The height reduction would be accomplished by setting the fourth floor of the Capp Street residential component back 24 feet from the northern property line, and 34 feet from Capp Street at the northeastern corner as the building steps down to a three story height. At the northeastern corner, the fifth floor would be set back between 24 feet and 48 feet from the northern property line, and 34 feet from Capp Street (see Figure 6-6).

Table 6-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Land Use and Land Use Planning	No additional land use and land use planning impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced, impact compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).
Population and Housing	No additional population and housing impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact compared to the Proposed Project (LTS).	Similar to but slightly reduced impact compared to the Proposed Project (LTS).	Similar to but slightly reduced impact compared to the Proposed Project (LTS).
Cultural and Paleontological Resources	The Eastern Neighborhoods PEIR cultural and paleontological Mitigation Measures are applicable, and no additional cultural and paleontological impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (SM).	No impact (NI).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).
Transportation and Circulation							
Traffic	The Proposed Project is not expected to cause any new significant traffic impacts. A number of measures could be implemented to further lessen the already less than significant effect of project generated vehicle traffic in the project vicinity (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Similar to but slightly reduced impact compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).

Table 6-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist (continued)

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Transit	The Proposed Project would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Similar to but slightly reduced impact compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).
Pedestrians	The Proposed Project would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR. Improvement Measures documented in the CPE Checklist would further reduce less than significant pedestrian impacts (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).	Similar to, but slightly reduced impact, compared to the Proposed Project (LTS).
Loading	The Proposed Project would result in significant impacts that were not identified in the Eastern Neighborhoods PEIR. Improvement Measures documented in the CPE Checklist would further reduce less than significant loading impacts (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).

Table 6-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist (continued)

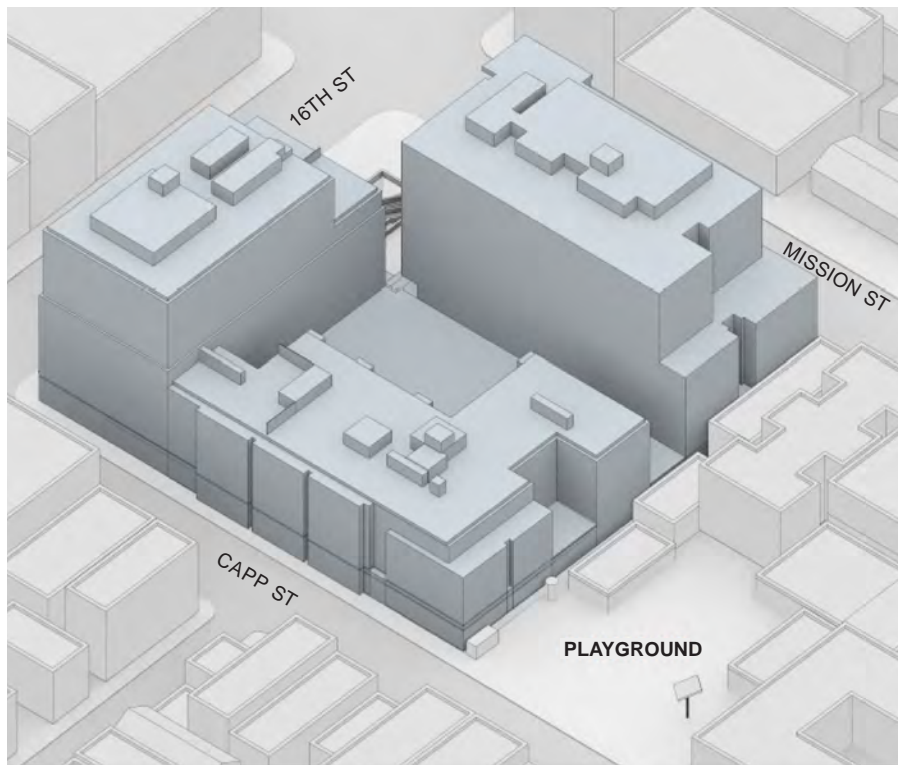
	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Construction	The Proposed Project would result in less than significant construction related transportation impacts. Improvement Measures documented in the CPE Checklist would further reduce less than significant construction related impacts (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Noise	The Eastern Neighborhoods PEIR noise Mitigation Measures are applicable, and no additional noise impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (SM).	No Impact (NI).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).
Air Quality	No additional air quality impacts were identified beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No Impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to Proposed Project (LTS).	Similar to Proposed Project (LTS).	Similar to Proposed Project (LTS).
Greenhouse Gas Emissions	No additional impacts on GHG emissions beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Recreation	No additional impacts on recreation beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).

Table 6-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist (continued)

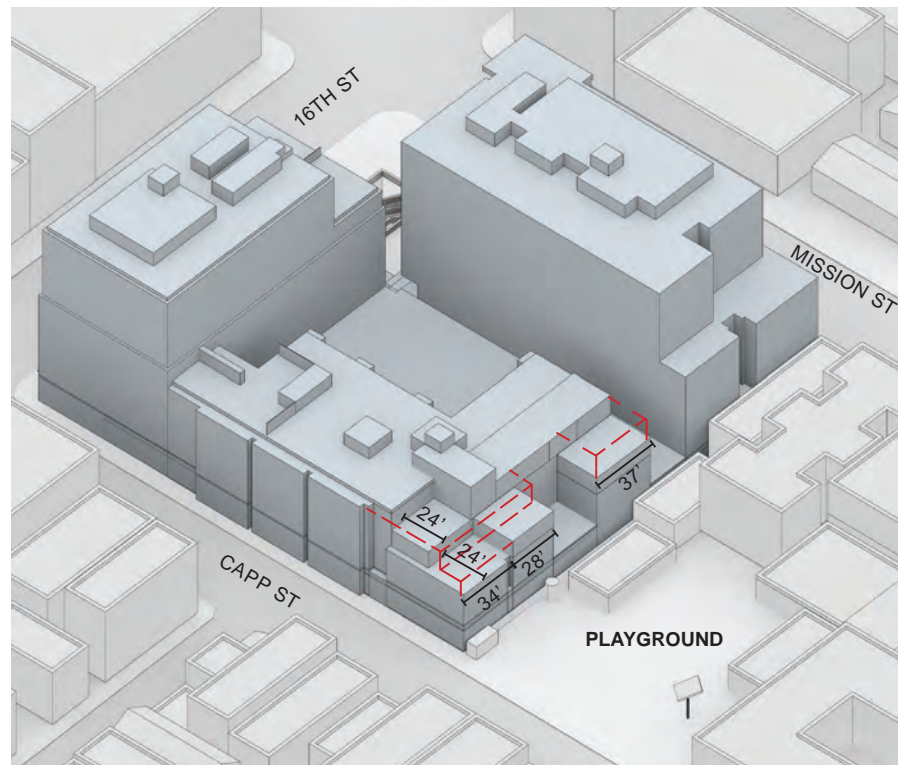
	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Utilities and Service Systems	No additional impacts on utilities and service systems beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Public Services	No additional impacts on public services beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Biological Resources	No additional impacts on biological resources beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Hydrology and Water Quality	No additional impacts related to hydrology and water quality beyond those in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Hazards and Hazardous Materials							
Hazards and Hazardous Materials	The Eastern Neighborhoods PEIR hazardous materials Mitigation Measures are applicable and no additional impacts beyond those identified in the PEIR (SM).	No impact (NI).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).	Similar to the Proposed Project (SM).
Soil and Groundwater Contamination	No additional impacts associated with soil and groundwater contamination beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).	Similar to the Proposed Project, and similar regulatory requirements would apply (LTS).

Table 6-6
Comparison of Impacts of Proposed Project to Impacts of Alternatives
Environmental Topics Analyzed in the Community Plan Exemption Checklist (continued)

	Proposed Project	No Project Alternative	Alternative B: Bulk Code Compliant Alternative	Alternative C: Raised Playground Alternative	Alternative D: Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)	Alternative E: Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)	Alternative F: Reduced Shadow Alternative 3 – Reduced Mission and Capp Components
Mineral and Energy Resources	No additional impacts on mineral and energy resources beyond those analyzed in the Eastern Neighborhoods PEIR (LTS).	No impact (NI).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).	Similar to the Proposed Project (LTS).
Agriculture and Forest Resources	No additional impacts on agriculture and forest resources beyond those analyzed in the Eastern Neighborhoods PEIR (NI).	No Impact (NI).	Similar to the Proposed Project (NI).	Similar to the Proposed Project (NI).	Similar to the Proposed Project (NI).	Similar to the Proposed Project (NI).	Similar to the Proposed Project (NI).
<p>Legend</p> <p>NI No impact</p> <p>LTS Less than significant or negligible impact; no mitigation required</p> <p>SM Significant but mitigable</p> <p>SU Significant and unavoidable adverse impact, no feasible mitigation</p> <p>SUM Significant and unavoidable adverse impact, after mitigation</p>							



Proposed Project



Alternative D

Not to Scale

Source: Skidmore, Owings & Merrill LLP, 2015.

**ALTERNATIVE D
REDUCED SHADOW ALTERNATIVE 1
REDUCED CAPP COMPONENT (SCULPTED NORTHEAST SIDE)**

1979 Mission Street Project
San Francisco, California

Alternative D would have an additional 2,447 square feet (for a total 3,192 square feet) of private usable open space, and 688 square feet less of common usable open space, when compared to the Proposed Project. The common usable open space under Alternative D would be in the form of roof decks and a portion of the interior courtyard open space.¹⁰ Open space would include a publicly accessible ground level open space adjacent to the Northeast BART Plaza. Alternative D would require the same deviations from the Planning Code requirements as the Proposed Project, and would comply with the Mission Neighborhood Commercial Transit (NCT) district zoning. Due to the increased setbacks on the northern end of the Capp Street residential component, a portion of the private usable open space under Alternative D would be increased by 2,447 square feet, from 10,234 square feet under the Proposed Project to 12,681 square feet. This alternative would also include a privately owned publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project.

The construction duration of Alternative D would be approximately 21 months, similar to that of the Proposed Project. Alternative D would require the same approvals as those listed for the Proposed Project in Chapter 2 under Section 2 on pages 2-36 through 2-37.

2. Impacts

a. Wind

Compared to the Proposed Project, the massing changes under Alternative D would not cause substantial changes in wind impacts. The setback at the fourth and fifth floors of the Capp Street residential component under this alternative compared with the Proposed Project would have no substantial effects on wind conditions for the following reasons: The Capp Street residential component would be sheltered from the prevailing winds by the taller massing of the Mission Street and 16th Street residential components, and by other surrounding buildings. For this reason, the setback of the Capp Street residential component would not change wind speeds in the Project area, and would be similar to conditions in the area with the Proposed Project. Therefore, Alternative D's impacts related to wind would be less than significant, similar to the Proposed Project. The contribution of this alternative to cumulative wind impacts would be less than significant, similar to that of the Proposed Project, and for the same reasons as the Proposed Project (see Appendix D).

b. Shadow

As presented in Table 6-2, Alternative D would result in a new shadow load of 16.99 percent of TAAS. The total shadow load on the Playground under Alternative D would be 39.07 percent of TAAS. Therefore, on an annual basis Alternative D would result in 16.99 percent (39.07 minus 22.08) more shaded time on the Playground compared to the existing conditions (see Table 6-2). Exhibits I.1 and I.2 in Appendix E provide graphics of the shadows cast on the Playground and quantified shadow impact results for Alternative D, respectively.

Between 10:00 a.m. and 1:00 p.m. during the recess and lunch period at the Marshall Elementary School, on an annual basis Alternative D would add approximately 2.04 percent shaded time and would result in a total of 2.43 percent shaded time (see Table 6-3).

¹⁰ See Planning Code Section 135(f) for definition of private usable open space, and Section 135(g) for common usable open space, and Section 135(d) and Table 135A for amount required.

Alternative D would cast new shadow on the Playground throughout the year with the largest area of shadow being cast on December 20. The largest new shadow area, 8,337 square feet in size, would occur at 1:00 p.m. in the winter, and would cover most of the turf field, and all the foursquare game area, the basketball hoop, and the kickball diamond (Exhibits I.1 and I.2 in Appendix E). Under Alternative D, these sections of the Playground would start to be partially shaded in the winter at 9:00 a.m., and would continue to be shaded until after 3:00 p.m. During winter, between 9:00 a.m. and 1:00 p.m. shadow would only result from Alternative D. Between 1:00 p.m. and 3:00 p.m., both Alternative D and existing buildings would shade the Playground. The Playground would be shaded only by existing buildings after 3:00 p.m. until sunset.

During autumn/spring, the largest new shadow area, 2,551 square feet in size, would occur at 1:00 p.m., and would cover the southern portion of the turf field, and the foursquare game area (Exhibits I.1 and I.2 in Appendix E). Under Alternative D, these sections of the Playground would start to be partially shaded in the autumn/spring at 9:00 a.m., and would continue to be shaded for the rest of the day. Before that time (sunrise to 9:00 a.m.), most of the Playground is shaded by existing buildings. Between 9:00 a.m. and 2:00 p.m., shadow would only result from the Alternative D building. Between 2:00 p.m. and 5:00 p.m., both the Alternative D building and existing buildings would shade the Playground and would entirely cover the turf field, the kickball diamond, and the foursquare game area. By 6:00 p.m., the Playground would be fully shaded by existing buildings. In the summer season, the Alternative D building would cast minimal new shadow on the Playground, mostly between 12:00 p.m. and 3:00 p.m. The largest shadow cast by the Alternative D building on the Playground during the summer would occur at 12:45 p.m. and would cover approximately 913 square feet. The new shadow would be on the southern property line between the Playground and the Capp Street residential component (see Exhibits I.1 and I.2 in Appendix E).

As noted above, under Alternative D the Playground would be shaded approximately 39.07 percent of the time. During the winter, most of the turf field, and all the foursquare game area, the basketball hoop, and the kickball diamond would be shaded under this alternative from approximately 8:30 a.m. through 3:54 p.m. In the autumn/spring, new shadow would cover the southernmost portion of the Playground, half of the foursquare game area, and a portion of the turf field. For these reasons, total shadow under Alternative D would adversely affect the Playground, and shadow impacts would be significant.

There is no feasible available mitigation for Alternative D's shadow impact on the Playground. Any potential mitigation would fundamentally alter the Project's basic design. In addition, because the existing buildings on the project site are one-story plus mezzanine and there is a surface parking lot immediately adjacent to the Playground, any multi-story development on the project site would likely have substantial shadow impacts on the Playground.

Alternative D would create new shadow in a manner that would substantially affect the Playground's activities, and the impact would be significant and unavoidable.

Cumulative Shadow Impacts under Alternative D

Other reasonably foreseeable development projects in the immediate project vicinity are listed in Section 4.A.3 under Approach to Cumulative Analysis. However, none of these projects would cast a shadow on the Playground. Currently, the Playground is shaded 22.08 percent of the time. As described above, Alternative D would result in a significant and unavoidable shadow impact to the Playground, because on an annual basis it would increase the shaded time by 16.99 percent. Cumulative shadow impacts from past projects in conjunction with Alternative D would be significant. The Playground

would be shaded by Alternative D during peak use times, including during recess and lunch, which would substantially affect the use of the Playground. Therefore, Alternative D's contribution to the cumulative shadow impacts at the Playground would be cumulatively considerable, and cumulative impacts would be significant. There are no feasible mitigation measures other than to consider alternative building designs. Therefore, the cumulative shadow impact would be a significant and unavoidable impact.

Shadow Impacts of Alternative D Compared to the Proposed Project

Under Alternative D, the northeastern corner of the Capp Street residential component would have setbacks at the fifth and fourth floors adjacent to the Playground, which would reduce the shadow impact under Alternative D when compared to the Proposed Project.

There would be a 4.58 percent reduction in the percentage of TAAS compared to the Proposed Project between the total shadow load on the Playground under Alternative D (39.07 percent) and the total shadow load on the Playground under the Proposed Project (43.65 percent).

On an annual basis between 10:00 a.m. and 1:00 p.m., Alternative D would have 0.67 percent less total shaded time on the Playground than the Proposed Project. During this time period, Alternative D would result in 2.43 percent total shaded time on the Playground, and the Proposed Project would result in 3.1 percent shaded time on the existing Playground (see Table 6-3).

Similar to Alternative D, the Proposed Project would result in new shadow throughout the year. However, new shadow cast by Alternative D would be slightly smaller than that cast by the Proposed Project. This would result from the setbacks at the fourth and fifth floors of the northeastern corner of the Capp Street residential component under Alternative D.

Similar to the Proposed Project, Alternative D would cast new shadow on the Playground throughout the year, with the largest area of shadow occurring on December 20. During the winter, the Playground would be mostly shaded throughout the day under either Alternative D or the Proposed Project, except for a small section at the northeastern corner, which would remain sunny until 2:00 p.m. However, new shadow under Alternative D would be slightly less than that cast by the Proposed Project. The largest area of shadow under Alternative D would occur at 1:00 p.m. and would be approximately 8,336 square feet in size. Under the Proposed Project, the largest area of shadow would occur at 12:15 p.m. and would be approximately 10,123 square feet in size.

In the autumn/spring, similar to the Proposed Project, new shadow on the Playground under Alternative D would be cast on the southern end of the Playground starting at 9:00 a.m., and would gradually increase for the rest of the day. However, new shadow load would be slightly less under Alternative D than under the Proposed Project. Under Alternative D, larger portions of the foursquare game area and the turf field would remain sunny for parts of the morning until 2:00 p.m., compared to conditions under the Proposed Project (see Exhibits I.1 and I.2 in Appendix E). The largest area of shadow in the autumn/spring would occur at 1:00 p.m. under both Alternative D and the Proposed Project, and would be 2,551 square feet and 3,584 square feet, respectively.

Similar to the Proposed Project, Alternative D would result in minimal new shadow along the southern edge of the Playground along the property line with the project site during the summer season. The shadow would start at 10:00 a.m. and stay until 4:00 p.m., but would not cover any of the Playground game areas (see Exhibit I.1 in Appendix E).

Cumulative Shadow Impacts of Alternative D Compared to the Proposed Project

Alternative D would contribute significantly to cumulative shadow impacts on the Playground, but to a lesser degree than the Proposed Project. Alternative D would result in shaded time of 39.07 percent of TAAS, compared to the Proposed Project at 43.65 percent of TAAS. Therefore, significant cumulative shadow impacts under this alternative would be somewhat less than those identified under the Proposed Project. However, cumulative shadow impacts under Alternative D, while reduced compared to the Proposed Project, would remain significant and unavoidable.

Shadow Impacts Summary of Alternative D

Alternative D would have slightly reduced shadow impacts compared to the Proposed Project (see Table 6-4). However, Alternative D would shade the Playground approximately 39 percent of the time, and would cover most of the turf field, the foursquare game area, the basketball hoop, and the kickball diamond before 1:00 p.m. during winter. Alternative D would also cover the southern portion of the turf field and the foursquare game area during autumn/spring. Similar to the Proposed Project, Alternative D would result in significant unavoidable shadow impacts. Alternative D would contribute significantly to cumulative shadow impacts on the Playground. However, significant cumulative shadow impacts under this alternative would be less than those identified under the Proposed Project.

c. Geology and Soils

Similar to the Proposed Project, the mixed use building under Alternative D would include the same below grade garage, and would be partially sited within the BART ZOI. Therefore, similar to the Proposed Project, Alternative D could result in adverse effects on the BART subway during construction or operation if it is not properly designed and constructed. Similar to the Proposed Project, implementation of Mitigation Measure M-GE-3: Design Approval and Construction Monitoring for BART Subway Structure, described in Section 4C (Geology and Soils), Section C (Impact Evaluation) (pages 4.C-13 and 4.C-14), would ensure that these impacts would be less than significant with mitigation. The contribution of this alternative to cumulative impacts to geology and soil would be less than significant with mitigation, similar to that of the Proposed Project, and for the same reasons as the Proposed Project.

d. Resource Topics Analyzed in the Community Plan Exemption Checklist

Alternative D would have demolition, excavation, and construction activities similar to those of the Proposed Project. Similar to the Proposed Project, Alternative D would include the demolition of the two existing commercial buildings and surface parking lot on the project site. Also similar to the Proposed Project, Alternative D would include the construction a new, four to ten story mixed use building with a maximum height of 105 feet. Vehicular and pedestrian access to the project site under Alternative D would be similar to that under the Proposed Project. However, Alternative D would have four fewer residential units than the Proposed Project. Therefore, Alternative D would result in slightly less population density and a slightly smaller number of vehicles, pedestrians, bicyclists, and transit users. With similar demolition, excavation, and construction activities, Alternative D would have impacts similar to those of the Proposed Project, as analyzed in the CPE Checklist (Appendix A), for the following environmental topics: land use and land use planning, cultural and paleontological resources, greenhouse gas emission, noise, biological resources, hydrology and water quality, hazards and hazardous materials, minerals and energy resources, and agriculture and forest resources. In addition, Alternative D would have construction impacts associated with air quality and noise similar to those under the Proposed Project. Because Alternative D would have fewer residential units and a smaller

number of vehicles, pedestrians, bicyclists, and transit users than the Proposed Project, impacts associated with the following environmental topics would be slightly reduced from those identified for the Proposed Project: population and housing, transportation and circulation, recreation, utilities and service systems, public services, and air quality and noise impacts associated with operational activities. In addition, Alternative D would not result in any significant impacts that were not identified in the Eastern Neighborhoods PEIR. Mitigation Measures and Improvement Measures applicable to the Proposed Project and documented in the CPE Checklist (Appendix A) would be applicable to Alternative D (see Table 6-6).

e. Conclusion

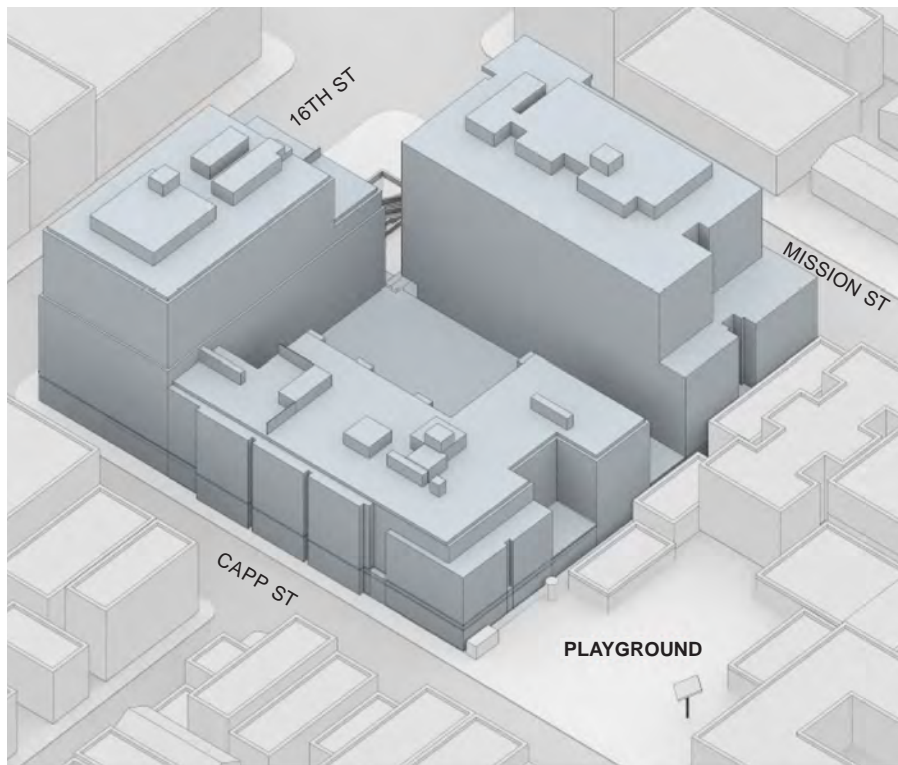
Alternative D would achieve the Project Sponsor's objectives, but to a lesser extent compared with the Proposed Project. Alternative D would meet the objectives for the Project regarding the development of a mixed use residential building in close proximity to transit, providing high quality housing, generating new employment opportunities, and improving the quality and safety of the open space and streetscape. However, although the affordable housing component under Alternative D would comply with the inclusionary affordable housing requirements under the Planning Code, and this alternative would include street improvements and other public improvements (similar to the Proposed Project), it would have four fewer residential units, resulting in fewer affordable units for low, moderate, and middle income households than the Proposed Project. Therefore, Alternative D would achieve the Project Sponsor's objectives to a lesser extent.

Similar to the Proposed Project, Alternative D would result in less than significant impacts related to wind and geology and soils. In addition, similar to the Proposed Project, Alternative D would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR. Alternative D would reduce, but not avoid, the significant shadow impact of the Proposed Project.

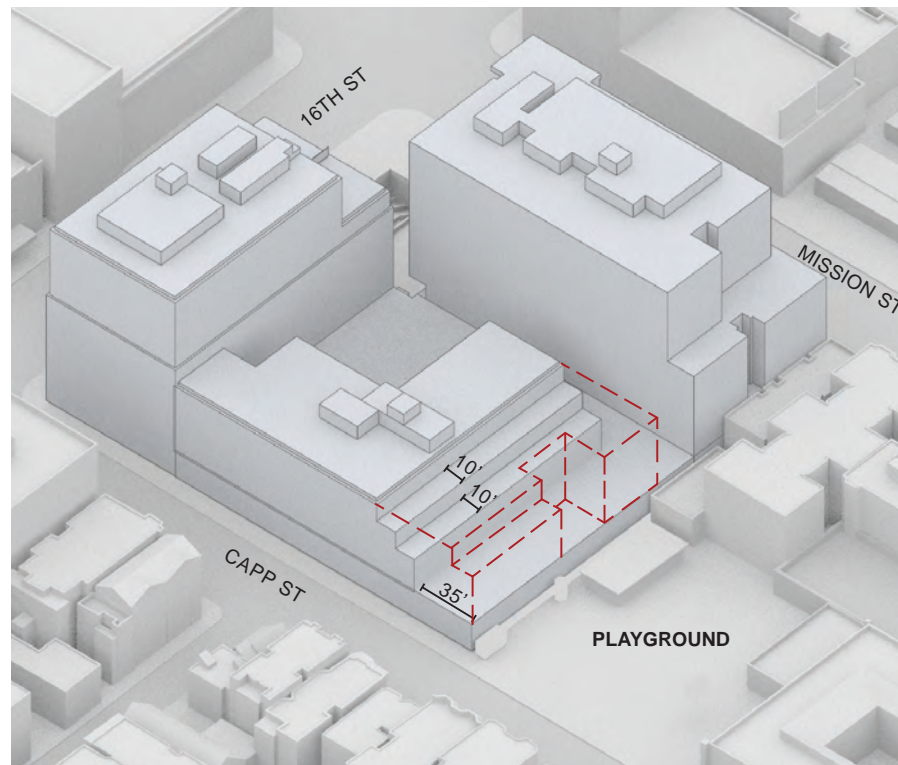
E. Alternative E – Reduced Shadow Alternative 2 – Reduced Capp Component (35-Foot Setback)

1. Description

Similar to the Proposed Project, all existing onsite structures would be demolished under Alternative E, and the site would be redeveloped with a mixed use building that would include three residential components (Capp Street, 16th Street, and Mission Street), ground floor retail along Mission Street and 16th Street, parking, loading, building services, and approximately 25,508 gsf of open space. Alternative E would include approximately 310 residential units, 21 fewer residential units than the Proposed Project. Under Alternative E, the Mission Street and 16th Street residential components of the building, and the retail uses, parking, loading, and building services would be identical to those under the Proposed Project, as shown on Figure 6-7. The Capp Street residential component would be 15 feet to 55 feet high, with a maximum of 71 feet to the top of the elevator penthouse. The northern end of the Capp Street building would be set back 35 feet from the northern property line above the ground floor, 45 feet at the fourth floor, and 55 feet at the fifth floor, as shown on Figure 6-7.



Proposed Project



Alternative E

Not to Scale

Source: Skidmore, Owings & Merrill LLP, 2015.

**ALTERNATIVE E
REDUCED SHADOW ALTERNATIVE 2
REDUCED CAPP COMPONENT (35-FOOT SETBACK)**

1979 Mission Street Project
San Francisco, California

FIGURE 6-7

Alternative E would require the same deviations from the Planning Code requirements as the Proposed Project, and would comply with NCT district zoning. Common usable open space would be provided in the form of roof decks and a portion of the interior podium courtyard. The northern 35 feet of the Capp Street residential component at the second level would include both common and private usable open space. The common usable open space totaling 25,508 square feet would decrease by 3,233 square feet when compared to the Proposed Project. Although the amount of common usable open space would decrease under this alternative, the number of residential units would also decrease by 21 units.

This alternative would provide no private usable open space. This alternative would also include a privately owned publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project.

Alternative E would require the same approvals as those listed for the Proposed Project in Chapter 2 under Section 2 on pages 2-36 through 2-37.

2. Impacts

a. Wind

Alternative E would have a 35-foot setback from the northern property line along the Capp Street residential component. The massing reduction under this alternative would slightly reduce the potential wind impact on Capp Street when compared to the Proposed Project, but would especially reduce the impact of the prevailing winds from the west-northwest and northwest directions at the northeastern corner of the project site. The wind conditions on Mission Street and 16th Street would not be negatively affected by this alternative because of the setback of the Capp Street residential component and the local wind directions, and would not substantially change the wind impacts when compared to the Proposed Project. Therefore, impacts related to wind would be less than significant for both the Proposed Project and Alternative E. The contribution of this alternative to cumulative wind impacts would be less than significant, similar to that of the Proposed Project, and for the same reasons as the Proposed Project (see Appendix D).

b. Shadow

As presented in Table 6-2, Alternative E would result in a new shadow load of 11.46 percent of TAAS. The total shadow load on the Playground under Alternative E would be 33.54 percent of TAAS. Exhibits J.1 and J.2 in Appendix E provide graphics of the shadows cast on the Playground and quantified shadow impact results for Alternative E, respectively. Between 10:00 a.m. and 1:00 p.m. during the recess and lunch period at the Marshall Elementary School, Alternative E would add approximately 0.87 percent shaded time, and would result in a total of 1.26 percent shaded time.

Alternative E would cast new shadow on the Playground throughout the year, with the largest area of shadow cast on December 20. During winter, Alternative E would cast new shadow on the Playground from approximately 8:30 a.m. through 3:54 p.m. The largest new shadow area as a result of Alternative E would be 4,779 square feet in size and would occur at 1:00 p.m. It would cover the western half of the turf field and the foursquare game area (Exhibit J.1 in Appendix E). Under Alternative E, these sections of the Playground would start to be partially shaded in the winter at 9:00 a.m. By 2:00 p.m., all of the Playground would be shaded and would remain shaded until sunset. Shadow on the Playground from sunrise until 10:00 a.m. would result from Alternative E and the existing buildings during winter.

Between 10:00 a.m. and 1:00 p.m., shadow would only result from Alternative E. Shadow would result from both Alternative E and existing buildings for the remaining part of the day.

During autumn/spring, the largest net new shadow area under Alternative E, 1,246 square feet in size, would occur at 1:00 p.m., and would cover the southernmost portion of the Playground, shading a minor portion of the foursquare game area (Exhibit J.1 in Appendix E). Under Alternative E, these sections of the Playground would start to be partially shaded in the autumn/spring at 9:00 a.m. and would continue to be shaded for the rest of the day. Before 9:00 a.m., most of the Playground is shaded by existing buildings, except for the southern portion of the turf field, which remain sunny. Between 9:00 a.m. and 2:00 p.m., shadow would only result from Alternative E. Between 2:00 p.m. and 5:00 p.m., both Alternative E and existing buildings would shade the Playground and would cover the turf field, the kickball diamond, and the foursquare game area. By 6:00 p.m., the Playground would be fully shaded, mostly by existing buildings.

In the summer, Alternative E would cast minimal new shadow on the Playground between 11:00 a.m. and 3:00 p.m. The largest shadow cast by the Alternative E on the Playground during the summer would occur at 12:45 p.m., and would cover approximately 440 square feet. The new shadow resulting from Alternative E would occur on the very edge of the southern boundary of the Playground (see Exhibit J.1 in Appendix E). Shadow from existing building starts along the western boundary of the Playground at 3:00 p.m. in the summer, and covers most of the Playground by 7:00 p.m. (see Exhibit J.1 in Appendix E).

As noted above, under Alternative E, the Playground would be shaded 33.54 percent of the time. During the winter, the western half of the turf field and the foursquare game area would be shaded under this alternative from approximately 8:30 a.m. through 3:54 p.m. In the autumn/spring, new shadow would cover the southernmost portion of the Playground, shading a minor portion of the foursquare game area. For these reasons, total shadow under Alternative E would adversely affect the Playground, and shadow impacts would be significant.

There is no feasible available mitigation for Alternative E's impacts on the Playground. Any potential mitigation would fundamentally alter the Project Alternative's basic design. In addition, because the existing buildings on the project site are one story plus mezzanine and there is a surface parking lot immediately adjacent to the Playground, any multi-story development on the project site would likely have substantial shadow impacts on the Playground.

The shadow analysis shows that Alternative E would create new shadow in a manner that would substantially affect the Playground, and the impact would be significant and unavoidable.

Cumulative Shadow Impacts under Alternative E

Other reasonably foreseeable development projects in the immediate project vicinity are listed in Section 4.A.3 under Approach to Cumulative Analysis. However, none of these projects would cast a shadow on the Playground. Currently, the Playground is shaded 22.08 percent of the time. As described above, Alternative E would result in a significant and unavoidable shadow impact to the Playground. In conjunction with impacts from past projects, cumulative shadow impacts as a result of Alternative E would be significant. The Playground would be shaded by Alternative E in the winter and autumn/spring during peak use times, including during recess and lunch, which would substantially affect the use of the Playground. Therefore, Alternative E's contribution to the cumulative shadow impacts at the Playground would be cumulatively considerable, and cumulative impacts would be significant. Because there are no feasible mitigation measures, the impact would be cumulatively significant and unavoidable.

Shadow Impacts of Alternative E Compared to the Proposed Project

Under Alternative E, the northern end of the Capp Street building, adjacent to the Playground, would be set back 35 feet from the northern property line above the ground floor, 45 feet at the fourth floor, and 55 feet at the fifth floor, respectively. The setback would reduce the shadow impact from the Capp Street residential component when compared to the Proposed Project.

There would be a 10.11 percent reduction in the percentage of TAAS compared to the Proposed Project between the total shadow load on the Playground under Alternative E (33.54 percent) and the total shadow load on the Playground under the Proposed Project (43.65 percent).

Between 10:00 a.m. and 1:00 p.m., Alternative E would result in 1.84 percent less total shaded time on the Playground than the Proposed Project. During this time period, Alternative E would result in 1.26 percent total shaded time on the Playground, and the Proposed Project would result in 3.1 percent shaded time on the existing Playground (see Table 6-3).

Similar to the Proposed Project, Alternative E would result in new shadow throughout the year. However, new shadow cast by Alternative E would be substantially less than that under the Proposed Project due to the setbacks above the ground floor of the Capp Street residential component along the northern boundary.

Similar to the Proposed Project's new shadow cast, Alternative E would cast new shadow on the Playground throughout the year, with the largest area of shadow occurring on December 20. During the winter, under Alternative E, the middle portion of the Playground, including the basketball hoop, kickball diamond, and northern half of the turf field, would remain sunny from 9:00 a.m. until 2:00 p.m. During that same period of the day, the Playground would be mostly shaded under the Proposed Project, except for a small section at the northeastern corner. The largest area of shadow under Alternative E would occur at 1:00 p.m., and would be approximately 4,779 square feet in size. Under the Proposed Project, the largest area of shadow would occur at 12:15 p.m., and would be approximately 10,123 square feet in size. Similar to the Proposed Project, new shadow on the Playground under Alternative E would result from the Capp Street building component until approximately 12:45 p.m. After this time, both the Capp Street and Mission Street residential would cast new shadow on the Playground until the end of the day.

In the autumn/spring, similar to the Proposed Project, new shadow on the Playground under Alternative E would be cast on the southern end of the Playground starting at 9:00 a.m., and would gradually increase for the rest of the day. However, the extent of the shadow would be substantially less under Alternative E compared with the Proposed Project. Under Alternative E, the foursquare game area would not be shaded until approximately 4:00 p.m., compared to being shaded after approximately 10:00 a.m. under the Proposed Project (see Exhibits J.1 and J.2 in Appendix E). The largest area of shadow in autumn/spring under Alternative E would be 1,246 square feet, and would occur at 1:00 p.m. at the southern edge of the Playground. The largest area of shadow during that time period under the Proposed Project would occur at the same location and time. However, it would be 3,584 square feet in size. Similar to the Proposed Project, new shadow under Alternative E that would occur in the morning in the autumn/spring would result from the Capp Street residential component. After approximately 2:00 p.m., new shadow would result from either the Capp Street or Mission Street residential components.

Similar to the Proposed Project, Alternative E would result in a minor area of new shadow along the southern edge of the Playground during summer. Also similar to the Proposed Project, this area would be shaded from approximately 10:00 a.m. until approximately 4:00 p.m.

Cumulative Shadow Impacts of Alternative E Compared to the Proposed Project

Similar to the Proposed Project, Alternative E would contribute significantly to cumulative shadow impacts on the Playground. However, because Alternative E would result in shading that would be 33.54 percent of TAAS and would result in relatively less shadow than the Proposed Project (43.65 percent of TAAS), significant cumulative shadow impacts under this alternative would be less than those identified under the Proposed Project.

Shadow Impacts Summary of Alternative E

Alternative E would have less reduced shadow impacts compared to the Proposed Project (see Table 6-4). However, Alternative E would shade the Playground approximately 33.54 percent of the time, and similar to the Proposed Project would result in significant unavoidable shadow impacts. The shadow reduction under Alternative E would result from the setbacks above the ground floor of the Capp Street residential component adjacent to the Playground.

Similar to the Proposed Project, Alternative E would contribute significantly to cumulative shadow impacts on the Playground. However, significant cumulative shadow impacts under this alternative would be less than those identified under the Proposed Project.

c. Geology and Soils

Similar to the Proposed Project, the mixed use building under Alternative E would be partially sited within the BART ZOI, and could result in adverse effects on the BART subway during construction or operation if not properly designed and constructed. Similar to the Proposed Project, implementation of Mitigation Measure M-GE-3: Design Approval and Construction Monitoring for BART Subway Structure, described in Chapter 4.C Geology and Soils, – Section 4.c – Impact Evaluation (pages 4.C-13 and 4.C-14), would ensure that these impacts would be less than significant with mitigation. The contribution of this alternative to cumulative impacts to geology and soil would be less than significant, similar to that of the Proposed Project, and for the same reasons as the Proposed Project.

d. Resource Topics Analyzed in the Community Plan Exemption Checklist

Alternative E would have demolition, excavation, and construction activities similar to those of the Proposed Project. Similar to the Proposed Project, Alternative E would include the demolition of the two existing commercial buildings and surface parking lot on the project site. Also similar to the Proposed Project, Alternative E would include the construction of a new, four to ten story mixed use building with a maximum height of 105 feet. Vehicular and pedestrian access to the project site under Alternative E would be similar to that under the Proposed Project. However, Alternative E would have 21 fewer residential units than the Proposed Project. Therefore, Alternative E would result in slightly less population density and a slightly smaller number of vehicles, pedestrians, bicyclists, and transit users. With similar demolition, excavation, and construction activities, Alternative E would have impacts similar to those of the Proposed Project, as analyzed in the CPE Checklist (Appendix A), for the following environmental topics: land use and land use planning, cultural and paleontological resources, greenhouse gas emission, noise, biological resources, hydrology and water quality, hazards and

hazardous materials, minerals and energy resources, and agriculture and forest resources. In addition, Alternative E would have similar construction impacts associated with air quality and noise. Because Alternative E would have fewer residential units and a smaller number of vehicles pedestrians, bicyclists, and transit users than the Proposed Project, impacts associated with the following environmental topics would be slightly reduced from those identified for the Proposed Project: population and housing, transportation and circulation, recreation, utilities and service systems, public services, and air quality and noise impacts associated with operational activities. However, Alternative E would not result in any significant impacts that were not identified in the Eastern Neighborhoods PEIR, and Mitigation Measures and Improvement Measures applicable to the Proposed Project and documented in the CPE Checklist (Appendix A) would be applicable to Alternative E (see Table 6-6).

e. Conclusion

Alternative E would redevelop the project site with a mixed use building (residential/retail), and would meet some of the objectives of the Project Sponsor to develop a mixed use high quality residential building for residents with varying incomes that would (1) be in close proximity to a major transit hub, (2) generate employment opportunities, (3) enhance the safety of public open space, and (4) improve the streetscape. However, although the affordable housing component under Alternative E would comply with the inclusionary affordable housing requirements under the Planning Code, and this alternative would include street improvements and other public improvements (similar to the Proposed Project), it would have 21 fewer residential units, resulting in fewer affordable units for low, moderate, and middle income households than the Proposed Project. Therefore, Alternative E would achieve the Project Sponsor's objectives to a lesser extent as a result of a 6 percent reduction in the number of residential units provided.

Similar to the Proposed Project, Alternative E would result in less than significant impacts related to wind and geology and soils. In addition, similar to the Proposed Project, Alternative E would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR. Shadow impacts under Alternative E would be significant and unavoidable, similar to the Proposed Project. However, Alternative E would result in somewhat reduced shadow impacts on the Playground compared to the shadow impacts on the Playground under the Proposed Project.

F. Alternative F – Reduced Shadow Alternative 3 – Reduced Mission and Capp Components (70-Foot Setback for Capp Component and 40-Foot Height Reduction for Mission Component)

1. Description

Under Alternative F, all existing onsite structures would be demolished, and the site would be redeveloped with a mixed use project with three residential components (Capp Street, 16th Street, and Mission Street) above ground floor retail. Alternative F would include 243 residential units above the second floor (Podium Level) and three residential units on the ground floor of the Capp Street building. This would be 85 fewer residential units than under the Proposed Project. The ground floor and basement level would be identical to the Proposed Project.

The northern end of the Capp Street residential component would be set back 70 feet above the ground floor, and the height of the Mission Street residential component would be reduced from 105 to 65 feet, when compared to the Proposed Project (see Figure 6-8). The 16th Street residential component would remain identical to the Proposed Project. Alternative F would contain 88 fewer residential units than the Proposed Project, and an additional 2,767 square feet of common usable space. This alternative would comply with the Mission NCT district zoning, and would require deviations from the Planning Code similar to the Proposed Project.

Compared to the Proposed Project, under Alternative F the height of the Mission Street residential component would be reduced by five levels of residential use over ground floor retail, or 65 feet high plus a 16-foot high elevator penthouse. The 16th Street residential component would be identical to the Proposed Project, with an approximately 40 foot setback above the seventh floor from the eastern property line of the Northeast BART Plaza, a maximum height of 105 feet as allowed under the Planning Code, and 121 feet to the top of the elevator penthouses (see Figure 6-8). The Capp Street residential component would be set back 70 feet at the second floor (Podium Level) from the northern property line, with a maximum height of 55 feet as allowed under the Planning Code, and 71 feet to the top of the elevator penthouses. The ground floor would include three at grade residential units, residential lobbies, three freight loading spaces, and one ADA accessible van parking space. Access to the parking levels and building services would be provided from Capp Street. The second through fifth floors would be for residential use only.

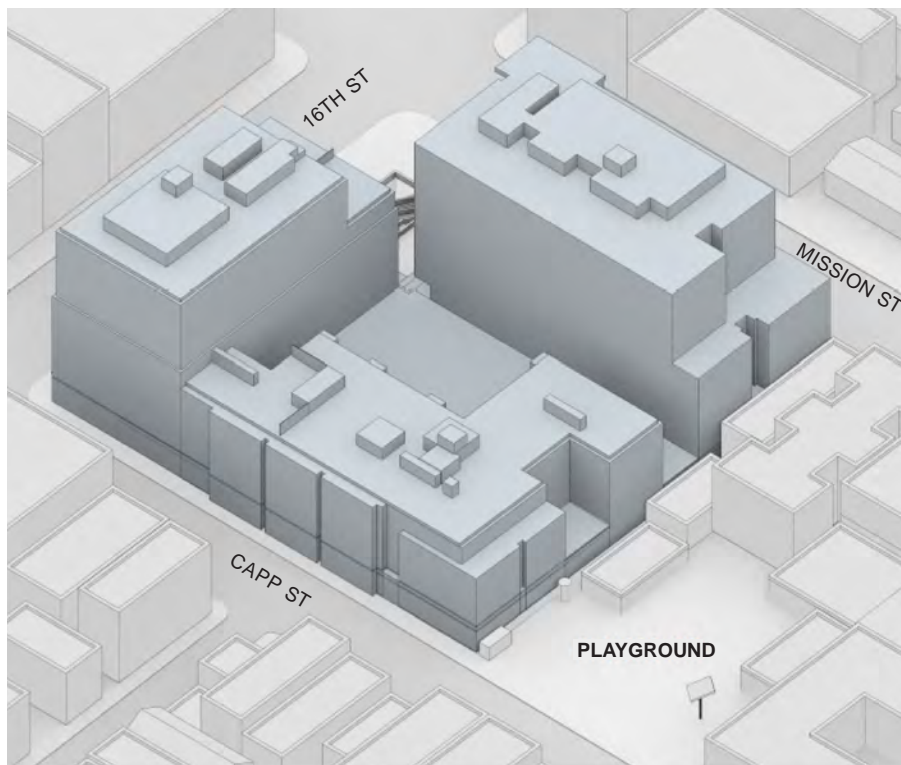
Alternative F would provide approximately 31,508 square feet of common usable open space in the form of roof decks and an outer court, which is 2,767 square feet more common open space for 88 fewer units than in the Proposed Project. This alternative would also include a privately owned publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project.

The construction duration of Alternative F would be approximately 21 months, similar to that of the Proposed Project. Alternative F would require the same approvals listed for the Proposed Project in Chapter 2 under Section 2 on pages 2-36 through 2-37.

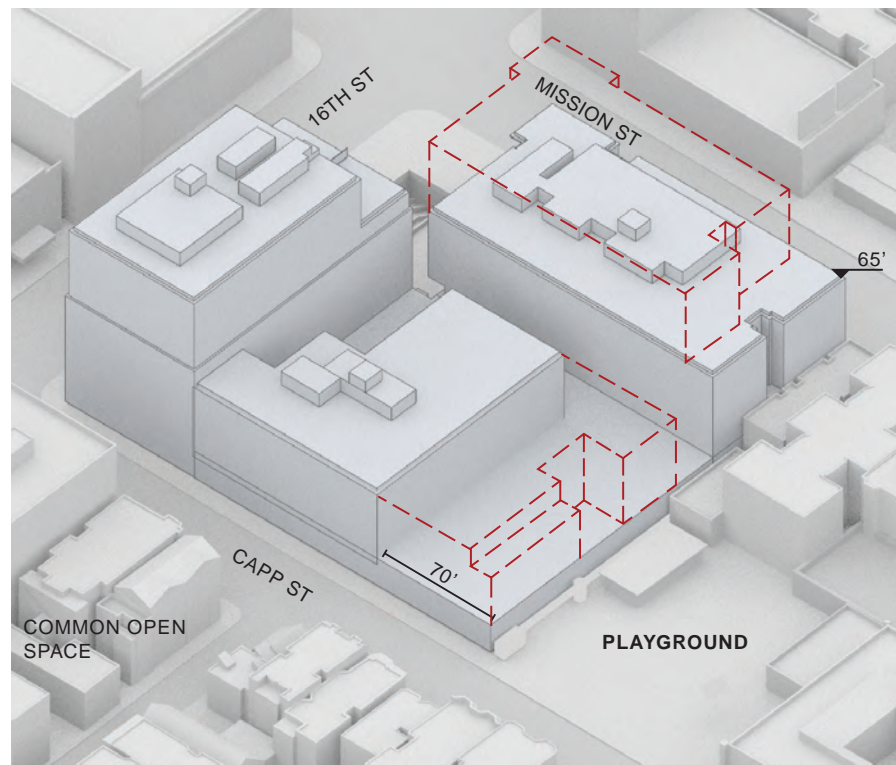
2. Impacts

a. Wind

Under Alternative F, a large portion of the northern building on Capp Street would be removed, and the Mission Street residential component would be similar in height to the existing surroundings in all directions, resulting in reduced wind exposure. Consequently, the wind speeds under this alternative along Mission and 16th Streets and the Northeast BART Plaza would be lower than those identified for the Proposed Project and described in Chapter 4.B, Wind and Shadow, Section 4.c, Impact Evaluation (see pages 4.B-5 through 4.B-9). Alternative F would not result in hazardous winds on and around the project site. The wind impacts under this alternative would be less than significant. The contribution of this alternative to cumulative wind impacts would be less than significant, similar to that of the Proposed Project, and for the same reasons as the Proposed Project (see Appendix D).



Proposed Project



Alternative F

Not to Scale

Source: Skidmore, Owings & Merrill LLP, 2015.

**ALTERNATIVE F
REDUCED SHADOW ALTERNATIVE 3
REDUCED MISSION AND CAPP COMPONENTS**

1979 Mission Street Project
San Francisco, California

FIGURE 6-8

b. Shadow

As presented in Table 6-2, Alternative F would result in a new shadow load of 8.82 percent of TAAS. The total shadow load on the Playground under Alternative F would be 30.90 percent of TAAS. Exhibits K.1 and K.2 in Appendix E provide graphics of the shadows cast on the Playground and quantified shadow impact results for Alternative F, respectively. For the hours between 10:00 a.m. and 1:00 p.m. during the recess and lunch period at the Marshall Elementary School, Alternative F would add approximately 0.75 percent shaded time and would result in a total of 1.14 percent shaded time.

Alternative F would cast new shadow on the Playground throughout the year, with the largest area of shadow cast on December 20. During winter, the Playground is fully shaded by existing buildings from sunrise until 9:00 a.m. Between 9:00 a.m. and 10:00 a.m., both Alternative F and existing buildings would partially shade the Playground, with existing buildings shading the eastern edge of the Playground and Alternative F shading the southern portion of the turf field and most of the foursquare game area. Between 10:00 a.m. and 1:00 p.m. during the winter, Alternative F would continue to shade the same sections of the Playground with no shadow from existing buildings. The largest new shadow area cast by the Alternative F building during the winter would be 3,064 square feet at 12:15 p.m. Between 1:00 p.m. and 2:15 p.m. in the winter, shadow from the Alternative F building would increase to cover all of the turf field and the foursquare game area. During that time of the day, shadow from existing buildings would cover the western edge and the northwestern corner of the Playground. By 3:00 p.m. and through the end of the day, the Playground would be fully shaded and shadow would result from both Alternative F and existing buildings (see Exhibit K.1 in Appendix E).

The new shadow cast by Alternative F in the spring/autumn would cover the southernmost portion of the Playground. However, it would not shade the foursquare game area until approximately 5:00 p.m. During the autumn/spring, from sunrise until 8:00 a.m., existing buildings shade most of the Playground except for its southwestern corner. Alternative F would start to cast shadow on the Playground by 9:00 a.m., and would shade the edge of the Playground's southern boundary until 3:00 p.m. The largest shadow area cast by Alternative F in the autumn/spring would be 1,246 square feet and would occur at 1:00 p.m. Between 3:00 p.m. and 5:00 p.m., the shadow from the Alternative F building would increase to cover the southern portion of the turf field and all of the foursquare game area. Also by 3:00 p.m., shadow from existing buildings starts covering the western boundary of the Playground and gradually covers all of the Playground until sunset (see Exhibit K.1 in Appendix E).

During the summer, from sunrise until approximately 8:00 a.m., existing buildings shade the Playground, covering the basketball hoop, the kickball diamond, the foursquare game area, and part of the turf field. Between 9:00 a.m. and 3:00 p.m., the Playground would be fully sunny during the summer under this Alternative, except for the edge of its southern boundary that would be shaded by the Alternative F building. The largest area of shadow cast by Alternative F during the summer would be 440 square feet and would occur at 12:45 p.m. By 3:00 p.m. in the summer, existing buildings start gradually shading the Playground along its western boundary to fully shade it by 7:00 p.m. (see Exhibit K.1 in Appendix E).

As noted above, under Alternative F the Playground would be shaded 30.90 percent of the time. During the winter, between 10:00 a.m. and 1:00 p.m., shadow on the Playground would only result from the Alternative F building. By 1:00 p.m. and through the rest of the day, both Alternative F and the existing buildings would shade the Playground. In the autumn/spring, new shadow would cover the southernmost portion of the Playground. For these reasons, total shadow under Alternative E would adversely affect the Playground, and shadow impacts would be significant.

There is no feasible available mitigation for Alternative F's impact on the Playground. Any potential mitigation would fundamentally alter the Project Alternative's basic design. In addition, because the existing buildings on the project site are one story plus mezzanine and there is a surface parking lot immediately adjacent to the Playground, any multi-story development on the project site would likely have substantial shadow impacts on the Playground.

The shadow analysis shows that Alternative F would create new shadow in a manner that would substantially affect the Playground, and the impact would be significant and unavoidable.

Cumulative Shadow Impacts under Alternative F

Other reasonably foreseeable development projects in the immediate project vicinity are listed in Section 4.A.3 under Approach to Cumulative Analysis. However, none of these projects would cast a shadow on the Playground. Currently, the Playground is shaded 22.08 percent of the time. As described above, Alternative F would result in a significant and unavoidable shadow impact to the Playground, because on an annual basis it would increase the shaded time by 8.82 percent. Cumulative shadow impacts from past projects in conjunction with Alternative F would be significant. The Playground would be shaded by Alternative F during peak use times, including during recess and lunch, which would substantially affect the use of the Playground. Therefore, Alternative F's contribution to the cumulative shadow impacts at the Playground would be cumulatively considerable, and cumulative impacts would be significant. There are no feasible mitigation measures, resulting in a cumulatively significant and unavoidable impact.

Shadow Impacts of Alternative F Compared to the Proposed Project

Under Alternative F, the northern end of the Capp Street residential component would be set back 70 feet above the ground floor, and the height of the Mission Street residential component would be reduced from 105 to 65 feet, compared to the Proposed Project. The reduction of the height of the Mission Street residential component would result in an overall shadow reduction on the Playground after 2:00 p.m. when compared with the Proposed Project.

There would be an 8.82 percent reduction in the percentage of TAAS compared to the Proposed Project, when comparing the total shadow load on the Playground under Alternative F (30.90 percent) and the total shadow load on the Playground under the Proposed Project (43.65 percent).

Between 10:00 a.m. and 1:00 p.m., Alternative F would result in 1.96 percent less total shaded time on the Playground than the Proposed Project. During this time period, Alternative F would result in 1.14 percent total shaded time on the Raised Playground, and the Proposed Project would result in 3.1 percent shaded time on the existing Playground (see Table 6-3).

Similar to the Proposed Project, Alternative F would result in new shadow throughout the year. However, new shadow cast by Alternative F would be substantially smaller due to the setbacks above the ground floor of the northeastern corner of the Capp Street residential component, as well as the reduction in height of the Mission Street component from 105 feet under the Proposed Project to 65 feet under this alternative.

The shadow reduction under Alternative F in winter would primarily occur between 10:00 a.m. and 1:00 p.m. In winter, between 10:00 a.m. and 1:00 p.m., the Playground would be mostly shaded under the Proposed Project. Under Alternative F, the Playground would be mostly sunny during this timeframe, with the middle portion of the Playground—including the basketball hoop, kickball diamond, and turf

field—being sunnier compared with the Proposed Project. The largest area of shadow would occur at 12:15 p.m. under either Alternative F or the Proposed Project. However, the largest shadow area would be approximately 3,064 square feet under Alternative F, compared with approximately 10,123 square feet under the Proposed Project.

In autumn/spring, similar to the Proposed Project, Alternative F would result in new shadow throughout the day along the southern portion of the Playground; however, the extent of the shadow would be substantially less than that under the Proposed Project. Under Alternative F, the foursquare game area would not be shaded until approximately 4:00 p.m., compared to being shaded throughout the day after approximately 10:00 a.m. under the Proposed Project (see Exhibits J.1 and J.2 in Appendix E). The largest area of shadow in autumn/spring under Alternative F would be 1,246 square feet, and would occur at 1:00 p.m. The largest area of shadow during that time period under the Proposed Project would be 3,584 square feet.

Similar to the Proposed Project, Alternative F would result in minimal new shadow along the southern edge of the Playground during summer, and would start at approximately 10:00 a.m. and stay until approximately 4:00 p.m.

Cumulative Shadow Impacts of Alternative F Compared to the Proposed Project

Similar to the Proposed Project, Alternative F's shadow impacts at the Playground would be cumulatively considerable. However, this alternative would contribute to cumulative shadow impacts to a lesser extent than the Proposed Project. The Playground would be shaded 30.90 percent under Alternative F, and 43.57 percent under the Proposed Project.

Shadow Impacts Summary of Alternative F

Alternative F would have reduced shadow impacts compared to the Proposed Project (see Table 6-4). However, Alternative F would shade the Playground approximately 30.90 percent of the time, and similar to the Proposed Project would result in significant unavoidable shadow impacts. The shadow reduction under Alternative F would result from the setbacks above the ground floor of the Capp Street and Mission Street residential components.

c. Geology and Soils

Similar to the Proposed Project, the mixed use building under Alternative F would include the same basement and below grade garage. It would be partially sited within the BART ZOI, and could result in adverse effects on the BART subway during construction or operation if it is not properly designed and constructed. Similar to the Proposed Project, implementation of Mitigation Measure M-GE-3: Design Approval and Construction Monitoring for BART Subway Structure, described in Section 4C Geology and Soils – Section C – Impact Evaluation (pages 4.C-10 and 4.C-14), would ensure that these impacts would be less than significant with mitigation. The contribution of this alternative to cumulative impacts to geology and soil would be less than significant, similar to that of the Proposed Project, and for the same reasons as the Proposed Project.

d. Resource Topics Analyzed in the Community Plan Exemption Checklist

Alternative F would have demolition, excavation, and construction activities similar to those of the Proposed Project. Similar to the Proposed Project, Alternative F would include the demolition of the two

existing commercial buildings and surface parking lot on the project site. Also similar to the Proposed Project, Alternative F would include the construction of a new, one to ten story mixed use building with a maximum height of 105 feet. Vehicular and pedestrian access to the project site under Alternative F would be similar to that under the Proposed Project. However, Alternative F would have 88 fewer residential units than the Proposed Project. Therefore, Alternative F would result in less population density and smaller number of vehicles, pedestrians, bicyclists, and transit users. With similar demolition, excavation, and construction activities, Alternative F would have impacts similar to those of the Proposed Project, as analyzed in the CPE Checklist (Appendix A), for the following environmental topics: land use and land use planning, cultural and paleontological resources, greenhouse gas emission, noise, biological resources, hydrology and water quality, hazards and hazardous materials, minerals and energy resources, and agriculture and forest resources. In addition, Alternative F would have similar construction impacts associated with air quality and noise. Because Alternative F would have fewer residential units and a smaller number of vehicles pedestrians, bicyclists, and transit users than the Proposed Project, impacts associated with the following environmental topics would be somewhat reduced from those identified for the Proposed Project: population and housing, transportation and circulation, recreation, utilities and service systems, public services, and air quality and noise impacts associated with operational activities. However, Alternative F would not result in any significant impacts that were not identified in the Eastern Neighborhoods PEIR and Mitigation Measures and Improvement Measures applicable to the Proposed Project and documented in the CPE Checklist (Appendix A) would be applicable to Alternative F (see Table 6-6).

e. Conclusion

Alternative F would redevelop the project site with a mixed use building (residential and retail) that would meet some of the objectives of the Project Sponsor to develop a mixed-use high quality residential building for residents with varying incomes that would (1) be in close proximity to a major transit hub, (2) generate employment opportunities, (3) enhance the safety of the open space, and (4) improve the streetscape. However, although the affordable housing component under Alternative F would comply with the inclusionary affordable housing requirements under the Planning Code, and this alternative would include street improvements and other public improvements (similar to the Proposed Project), it would have 88 fewer residential units, resulting in fewer affordable units for low, moderate, and middle income households than the Proposed Project. Therefore, Alternative F would achieve the Project Sponsor's objectives to a much lesser extent as a result of providing 26 percent fewer residential units compared to the Proposed Project.

Similar to the Proposed Project, Alternative F would result in less than significant impacts related to wind and geology and soils. In addition, similar to the Proposed Project, Alternative F would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR. Shadow impacts under Alternative F would be significant and unavoidable, similar to the Proposed Project. However, Alternative F would result in somewhat reduced shadow impacts on the Playground compared to the shadow impacts on the Playground under the Proposed Project.

G. Alternatives Considered but Rejected from Further Consideration

Pursuant to CEQA Guidelines §15126.6(c), an EIR should "identify any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons

underlying the lead agency's determination." The screening process for identifying viable EIR alternatives included consideration of the following criteria: ability to meet the Project objectives; potential ability to substantially lessen or avoid significant environmental effects associated with the Proposed Project; and potential feasibility.

Similar to the Proposed Project, all of the rejected alternatives would include three residential components (Capp Street, 16th Street, and Mission Street), ground floor retail along Mission Street and 16th Street, parking, loading, building services, and approximately 28,741 gsf of common usable open space. The discussion below describes the alternatives considered and the reasons for rejecting them from detailed consideration in the EIR.

Original Massing Alternative – This alternative was the project analyzed in the CPE Checklist, which would also have 331 residential units, similar to the Proposed Project. However, when this Original Massing alternative was tested, the wind tunnel analysis found a hazardous wind impact. This alternative was rejected due to the potential for the new structure to create new hazardous wind location(s). As a result, this alternative was modified to include a chamfered corner above the third floor at the southwestern corner of the Mission Street residential component, which would eliminate the hazardous wind impact, and the Original Massing Alternative with this one modification (chamfered corner) is the Proposed Project analyzed in this EIR. This alternative would result in the same shadow impact on the Playground as the Proposed Project.

Reduced Mission Street Building Component Alternative – The Capp Street and 16th Street residential components would be identical to the Proposed Project under this alternative. However, the height of the Mission Street residential component would be reduced by 40 feet, or four stories. The height of the Mission Street component under this alternative would be 65 feet, compared to the height range of 65 to 105 feet under the Proposed Project. This alternative would have 266 units, which is 65 units less than the Proposed Project. In addition, this alternative would reduce the number of required affordable housing from 40 units to 32 units if provided on-site, or from 66 units to 53 units if provided off-site, or payment of a 20 percent in lieu fee.

This alternative would reduce new shadow on the Playground mostly in the afternoon to late afternoon compared to the Proposed Project, but would not reduce new shadow during lunch and recess times, because the Capp Street component would be the same as under the Proposed Project. Reducing the height of the Proposed Project's Mission Street residential component by 40 feet would result in minimal shadow reduction, because without any reduction in massing for the Capp Street residential component, this alternative would still cast substantial shadow on the Playground. Instead of this alternative, it was determined that Alternative F, with a similar reduction in the height of the Mission Street residential component in combination with a reduction in the massing of the Capp Street residential component, would reduce the Proposed Project's shadow impacts and should be considered.

This alternative would further substantially reduce the number of market rate and affordable housing units provided by the Proposed Project. It would not substantially reduce the shadow impact of the Proposed Project compared to an alternative already being studied. Therefore, this alternative was rejected from further consideration.

Reduced Capp Street and Mission Street Building Components Alternative – This alternative would set back the Capp Street residential component 70 feet from the northern property line above the ground floor, and the height of the Mission Street residential component would be reduced from 105 feet to 45 feet (four stories), reducing the number units from 331 under the Proposed Project to 201 units (130

fewer units). Preliminary shadow analysis showed that this alternative would reduce late afternoon shadow after 3:00 p.m. when compared to Alternative F, but would not reduce shadow during the 10:00 a.m. to 1:00 p.m. time period compared with Alternative F. In addition, this alternative would result in lower density on a site adjacent to a local and regional transit hub, which would include 42 fewer residential units than Alternative F. In addition, this alternative would reduce the number of required affordable housing from 40 units to 24 units if provided on site, or 66 units to 40 units if provided off site, or payment of a 20 percent in lieu fee.

This alternative would not reduce shadow impacts during the 10:00 a.m. to 1:00 p.m. time frame, compared with Alternative F. Therefore, this alternative was dismissed from further consideration, and Alternative F was selected for further analysis in the EIR.

An Offsite Alternative – An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (CEQA Guidelines, Section 15126.6 [f][3]). Whether a property is owned or can reasonably be acquired by the project sponsor has a strong bearing on the feasibility of developing a project alternative at a different site. No viable alternative sites have been identified in San Francisco that are under the project sponsor's control, that are where the Proposed Project could be constructed, and that would meet most of the project sponsor's objectives. Therefore, no offsite alternative was analyzed.

H. Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) requires identification of an Environmentally Superior Alternative if the proposed project has significant impacts that cannot be mitigated to a less than significant level. The Environmentally Superior Alternative is the alternative that best avoids or lessens any significant effects of the proposed project, even if the alternative would impede to some degree the attainment of some of the project objectives. Tables 6-2 and 6-3 provide a brief development comparison of the alternatives with the Proposed Project.

The Proposed Project would result in significant and unavoidable shadow impacts by creating new shadow in a manner that could substantially affect the Marshall Elementary School Playground. For projects in developed areas, the alternative with the least development—in this case the No Project Alternative—would eliminate the impacts. However, the No Project Alternative would result in a hazardous wind condition. Under the existing conditions, winds average 26 mph and exceed the hazard criterion at the northeastern corner of 16th and Capp Streets. In addition, the No Project Alternative would not meet any of the Project Sponsor's objectives.

Alternative C is identified as one of the environmentally superior alternatives. Under Alternative C, the existing Playground would be replaced with a new, 15-foot-tall, one-story structure with a Raised Playground on the roof. Elevating the Playground by 15 feet would substantially reduce overall shadow on the Raised Playground from existing buildings. Shadow impacts would be reduced to the maximum extent of any alternative compared to the Proposed Project. However, shadow impacts would remain significant and unavoidable under this alternative, because similar to the Proposed Project, the alternative would substantially shade the Raised Playground, including between 10:00 a.m. and 1:00 p.m., the lunch and recess periods, when the Playground is more intensively used for recreational activities. In addition, Alternative C would also achieve the Project Sponsor's objectives to the same extent as the Proposed Project. However, the school property is not part of the project site and is not under the control of the project sponsor. Implementation of this alternative would require the Project Sponsor and SFUSD to

agree on and execute an agreement whereby the Project Sponsor would undertake the demolition and construction activities on the school property as described above. The City cannot require or condition the Proposed Project on completion of an offsite mitigation alternative. Approvals and permits would be outside the jurisdiction of the City. The California State architect would need to review and approve the plans and permits for the demolition and new construction. Therefore, there is uncertainty as to whether or not this alternative would be approved.

Due to the uncertainty of Alternative C, Alternative F – Reduced Shadow Alternative 3 (Reduced Capp Street and Mission Street residential components) is the other environmentally superior alternative. Alternative F would redevelop the project site with a mixed use building (residential and retail) that would meet some of the objectives of the Project Sponsor to develop a mixed use high quality residential building that would (1) be in close proximity to a major transit hub, (2) generate employment opportunities, (3) enhance the safety of the open space, and (4) improve the streetscape. However, when compared to the Proposed Project, this alternative would have 88 fewer residential units, resulting in fewer affordable units for low, moderate, and middle income households adjacent to a major transit hub.

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CHAPTER 7

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REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

1979 Mission Street Mixed Use Project,

Planning Department Case No. 2013.1543E

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: _____

Appendix A

Notice of Preparation and CPE Checklist



SAN FRANCISCO PLANNING DEPARTMENT

Notice of Preparation of an Environmental Impact Report and Community Plan Exemption Checklist

Date: January 28, 2015
Case No.: 2013.1543E
Project Title: **1979 Mission Street Mixed-Use Project**
Project Address: 1979 Mission Street and 2950-2978 16th Street
BPA Nos.: 201312174382S (Site permit application number)
Zoning/Plan Area: Mission Street Neighborhood Commercial Transit (NCT)
Mission Street Formula Retail Restaurant Subdistrict
Mission Alcohol Restricted Use District
Fringe Financial Service Restricted Use District
105-E/55-X Height and Bulk District
Mission Area Plan of the Eastern Neighborhoods Rezoning and Area Plans
Block/Lot: 3553/052
Lot Size: 57,312 square feet (1.3 acres)
Project Sponsor: Seth Mallen (Maximus BP 1979 Mission Street LLC)
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PROJECT SUMMARY

The 57,312-square-foot project site is in the Inner Mission neighborhood (Assessor's Block 3553, Lot 052) and abuts the northern and eastern boundaries of the street-level plaza and northeast entrance to the 16th Street Mission Bay Area Rapid Transit District (BART) Station. The proposed project would demolish the two existing commercial buildings and surface parking lot on the site, and construct an up to 10-story, 105-foot (121 feet with elevator penthouse) mixed-use residential building with ground floor retail. The project site is located within the Mission Area Plan of the Eastern Neighborhoods Rezoning and Area Plans (Eastern Neighborhoods Plans).¹

The proposed building would have a total of 389,808 gross square feet (gsf), which would include 291,923 gsf of residential uses (331 dwelling units); 32,676 gsf of commercial space; and 65,209 gsf of parking (163 off-street parking spaces and 162 Class I bicycle parking spaces), and loading and building services). Parking and loading would be provided in a basement and ground-floor garage, which would be accessed from a 20-foot-wide driveway on Capp Street. Retail space for multiple tenants would be on the ground-floor level along Mission and 16th streets. Residential uses would be in three separate structures above the podium level (level 2) and along Capp Street. Open space for the residents would be provided in the interior courtyard on the podium level, and on roof terraces and private balconies. In

¹ Eastern Neighborhoods Plans refers to the Eastern Neighborhoods Rezoning and Area Plans, including the Mission Area Plan, and the resulting Planning Code changes that were created as part of the Eastern Neighborhood Program.

addition, along the northern and eastern sides of the BART plaza, the proposed project would be set back 15 feet from the property line, creating publicly accessible open space adjoining the 16th Street Mission BART plaza. Streetscape improvements in lieu of a portion of the Eastern Neighborhoods impact fee would include widening of the existing 9-foot Capp Street sidewalk to 12 feet on the western side of Capp Street between 16th and 15th Streets, and adding two bulb-outs—one on the northwest corner of the intersection of 16th Street/Capp Street and one on the western side of the Adair Street/Capp Street intersection. In addition, the project would install two bicycle corrals in the parking lanes—one on Mission Street and one on Capp Street.

The project site is zoned Mission Street NCT (Mission Street Neighborhood Commercial Transit Zoning District), and is in three special use districts: the Mission Street Formula Retail Restaurant Subdistrict, the Mission Alcohol Restricted Use District, and the Fringe Financial Service Restricted Use District. The portions of the site along Mission and 16th Streets are in the 105-E height and bulk district, and the portion of the site along Capp Street is in the 55-X height and bulk district. The project would require conditional use authorization for the following exceptions: lot size limit (Planning Code Section 121.1); use size limit (Planning Code Sections 121.2 and 121.6); rear yard size and location (Planning Code Section 134); bay window width and separation (Planning Code Section 136[c][2]); bulk limitations (Planning Code Section 270); streetscape and pedestrian improvements pursuant to the City's Better Streets Policy and Plan (Planning Code Section 138.1); and dwelling unit exposure to open space (Planning Code Section 140).

REMARKS

California Environmental Quality Act (CEQA) State Guidelines Section 15183 provides an exemption from environmental review for projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an Environmental Impact Report (EIR) was certified, except as might be necessary to examine whether there are project-specific effects that are peculiar to the project or its site. Section 15183 specifies that examination of environmental effects shall be limited to those effects that: a) are peculiar to the project or parcel on which the project would be located; b) 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; c) are potentially significant off-site and cumulative impacts that were not discussed in the underlying EIR; and d) are previously identified in the EIR, but that are determined to have a more severe adverse impact than that discussed in the underlying EIR. Section 15183(c) specifies that if an impact is not peculiar to the parcel or to the proposed project, then an EIR need not be prepared for that project solely on the basis of that impact. Section 15183(b) specifies that in approving a project meeting the requirements of Section 15183, a public agency shall limit its examination of environmental effects to those which the agency determines in an initial study or other analysis (here, in the attached Community Plan Exemption Checklist) were not analyzed as significant effects in the prior EIR prepared for the general plan, community plan, or zoning action.

The attached Community Plan Exemption (CPE) Checklist evaluates the potential project-specific environmental effects peculiar to the 1979 Mission Street Mixed-Use Project, and incorporates by reference information contained within the Eastern Neighborhoods Rezoning and Area Plans Final EIR (Eastern Neighborhoods PEIR) (Case No. 2004.0160E; State Clearinghouse No. 2005032048), which is the underlying EIR for the proposed project. Project-specific studies summarized in the CPE Checklist were prepared for the proposed project to determine if there would be any additional potentially significant impacts attributable to (i.e., "peculiar" to) the proposed project. The CPE Checklist contained in this

document identifies the potential environmental impacts of the proposed project, and indicates whether such impacts were addressed and disclosed in the Eastern Neighborhoods PEIR, or if particular topics are to be further evaluated in the Environmental Impact Report (EIR) to be prepared for the proposed project pursuant to Section 15183(b).

The attached CPE Checklist assesses the proposed project's potential to cause environmental impacts, and identifies mitigation measures contained in the Eastern Neighborhoods PEIR that would be applicable to the proposed 1979 Mission Street Mixed-Use Project. Relevant information pertaining to prior environmental review conducted for the Eastern Neighborhoods PEIR, as well as an evaluation of the potential impacts of the proposed 1979 Mission Street Mixed-Use Project, is provided in the attached CPE Checklist prepared for the proposed project.

BACKGROUND

After several years of analysis, community outreach, and public review, the Eastern Neighborhoods Plans were adopted in December 2008, in part to support housing development in some areas previously zoned to allow industrial uses, while preserving an adequate supply of space for existing and future production, distribution, and repair (PDR) employment and businesses. The Eastern Neighborhoods Plans also included changes to existing height and bulk districts in some areas. With respect to the project site, these changes applied to the portion of the project site on Capp Street that was rezoned from 50-X to 55-X for height and bulk, and to the portion of the project site fronting on 16th Street that was rezoned from 50-X to 105-E for height and bulk.

During the Eastern Neighborhoods Plans adoption phase, the Planning Commission held public hearings to consider the various aspects of the proposed area plans, and Planning Code and Zoning Map amendments. On August 7, 2008, the Planning Commission certified the Eastern Neighborhoods Rezoning and Area Plan Programmatic EIR (Eastern Neighborhoods PEIR) by Motion 17659,² and adopted the Preferred Project for final recommendation to the Board of Supervisors.³

In December 2008, after further public hearings, the Board of Supervisors approved and the Mayor signed the Eastern Neighborhoods rezoning and Planning Code amendments. New zoning districts include districts that would permit PDR uses in combination with commercial uses; districts mixing residential and commercial uses and residential and PDR uses; and new residential-only districts. The districts replaced existing industrial, commercial, residential single-use, and mixed-use districts.

The Eastern Neighborhoods PEIR is a comprehensive programmatic document that presents an analysis of the environmental effects of implementation of the Eastern Neighborhoods Plans, as well as the potential impacts under several proposed alternative scenarios. The Eastern Neighborhoods Draft EIR evaluated three rezoning alternatives, two community-proposed alternatives that focused largely on the Mission District, and a "No Project" alternative. The alternative selected, or the Preferred Project, represents a combination of Options B and C. The Planning Commission adopted the Preferred Project

² San Francisco Planning Department, 2008. Eastern Neighborhoods Rezoning and Area Plans Programmatic Environmental Impact Report, Planning Department Case No. 2004.0160E, certified August 7, 2008. The PEIR is on file for public review at the Planning Department, 1650 Mission Street Suite 400 as part of Case No. 2004.0160E, or at www.sfgov.org/site/planning_index.asp?id=67762.

³ San Francisco Planning Commission Motion 17659, August 7, 2008. This document is available online at www.sfgov.org/site/uploadedfiles/planning/Citywide/Eastern_Neighborhoods/Draft_Resolution_Public%20Parcels_FINAL.pdf.

after fully considering the environmental effects of the Preferred Project and the various scenarios discussed in the PEIR.

A major issue in the Eastern Neighborhoods Plans rezoning process was the degree to which existing industrially zoned land would be rezoned to primarily residential and mixed-use districts, thereby reducing the availability of land traditionally used for PDR employment and businesses. Among other topics, the Eastern Neighborhoods PEIR assesses the significance of the cumulative land use effects of the rezoning by analyzing its effects on the City's ability to meet its future PDR space needs, as well as its ability to meet its housing needs, as expressed in the City's General Plan.

As a result of the Eastern Neighborhoods Plans, the project site was rezoned from Moderate-Scale Neighborhood Commercial District (NC-3) to Mission Street Neighborhood Commercial Transit (Mission NCT). The Mission NCT District provides a selection of goods serving the day-to-day needs of the residents of the Mission District. Additionally, this District serves a wider trade area with its specialized retail outlets. Eating and drinking establishments contribute to the street's mixed-use character and activity in the evening hours. The District is extremely well-served by transit, including regional-serving BART stations at 16th Street (adjacent to the project site) and 24th Street; major buses running along Mission Street; and both cross-town and local-serving buses intersecting Mission along the length of this district, including along 16th Street adjacent to the project site. Given the area's central location and accessibility to the City's transit network, accessory parking for residential uses is not required. Any new parking is required to be set back or be below ground. New neighborhood-serving commercial development is encouraged mainly at the ground story. Housing development in new buildings is encouraged above the ground story. Housing density is not controlled by the size of the lot, but by requirements to supply a high percentage of larger units, and by physical envelope controls.

Individual projects that occur under the Eastern Neighborhoods Rezoning and Area Plans undergo project-level environmental evaluation to determine if they would result in further impacts specific to the development proposal, the site, and the time of development; and to assess whether additional environmental review is required. This determination concludes that the proposed project at 1979 Mission Street is generally consistent with and was encompassed within the analysis in the Eastern Neighborhoods PEIR. This determination also finds that the Eastern Neighborhoods PEIR adequately anticipated and described the majority of the impacts of the proposed 1979 Mission Street Mixed-Use Project, and identified the mitigation measures from the Eastern Neighborhoods PEIR that are applicable to the 1979 Mission Street Mixed-Use Project. The proposed project is also consistent with the zoning controls and the provisions of the Planning Code applicable to the project site.^{4,5}

ENVIRONMENTAL REVIEW TOPICS

The Planning Department has determined that the proposed project is in conformance with the height, use, and density for the site described in the Eastern Neighborhoods PEIR and will therefore be eligible for a Community Plan Exemption pursuant to the provisions of Section 15183. However, the proposed

⁴ Varat, Adam, 2014. San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Citywide Planning and Policy Analysis, 1979 Mission Street, August 20. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

⁵ Joslin, Jeff, 2014. San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Current Planning Analysis, 1979 Mission Street, September 10. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

project could result in potentially significant environmental effects not covered in the Eastern Neighborhoods PEIR per Section 15183(b). As required by CEQA, an EIR will be prepared to examine these effects, identify mitigation measures for potentially significant impacts, and analyze whether proposed mitigation measures would reduce the significant environmental impacts to less-than-significant levels. The EIR will also analyze alternatives to the proposed project that could substantially reduce or eliminate one or more significant impacts of the proposed project, but would still feasibly attain most of the basic project objectives.

The CPE Checklist concludes that the proposed project could result in significant impacts under the following topic areas that will be addressed in the EIR:

- Wind;
- Shadow; and
- Geology and Soils.

The CPE Checklist for the proposed 1979 Mission Street Mixed-Use Project included in this document covers the following topics, which are not anticipated to be addressed in the EIR: land use and land use planning; population and housing; transportation and circulation; cultural and paleontological resources; noise; air quality; greenhouse gas emissions; recreation; utilities and service systems; public services; biological resources; hydrology and water quality; hazards and hazardous materials; mineral and energy resources; and agriculture and forest resources. These topics may, however, be covered in the EIR if it is later determined that the proposed project could result in potentially significant environmental effects not disclosed by the Eastern Neighborhoods PEIR, per Section 15183.

PUBLIC NOTICE AND COMMENT

A “Notification of Project Receiving Environmental Review” (neighborhood notice) was mailed on July 1, 2014, to adjacent occupants and owners of properties within 300 feet of the project site; an updated notice correcting a typographical error was mailed on July 8, 2014, and the neighborhood notice was also redistributed to neighborhood organizations on July 24, 2014. Commenters expressed concerns over the following environmental issues: shadows cast by the proposed project upon adjacent buildings and uses—in particular, the Redstone Building and Marshall Elementary School; archaeological resources; wind; impacts upon a historic underground creek in the project vicinity; groundwater levels; air quality; noise; increased traffic and transit delays; safety; increased demand for infrastructure and public services; seismic instability and liquefaction; and construction impacts. Concerns and issues raised by the public in response to the notice were taken into consideration and incorporated in the environmental review as appropriate for CEQA analysis. These issues are addressed in the CPE Checklist in the following sections: Land Use and Land Use Planning, Population and Housing, Cultural Resources, Transportation and Circulation, Noise, Air Quality, Recreation, Utilities and Service Systems, Public Services, and Hydrology and Water Quality. Wind, shadow, and geology and soils impacts will be addressed in the Focused EIR that will be prepared for the proposed project; aside from potential impacts to these resource topics, the proposed project would not result in significant adverse impacts associated with the issues identified by the public, beyond those identified in the Eastern Neighborhoods PEIR.

In addition, commenters expressed concerns related to non-environmental topics, including the size and design of the project and socioeconomic issues such as displacement of existing residents and small businesses due to upward pressures on rents. Commenters also provided letters supporting the project,

citing its provision of additional housing, its transit-friendly nature, and proposed improvements to the 16th Street Mission BART plaza. Comments on the merits of the project that are not related to environmental topics will be provided to decision-makers for consideration in their review of approval actions for the proposed project.

FINDING

This project may have a significant effect on the environment, and an EIR is required. This determination is based upon the criteria of the State CEQA Guidelines, Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning), Section 15064 (Determining Significant Effect), and Section 15065 (Mandatory Findings of Significance).

PUBLIC SCOPING PROCESS

Written comments on the information in the attached CPE Checklist and the scope of the EIR will be accepted by mail, email, or fax until 5:00 p.m. on **March 2, 2015**. Written comments should be sent to Sarah B. Jones, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, 94103, or sarah.b.jones@sfgov.org. Fax comments can be sent to (415) 558-6409.

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.

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.

January 28, 2015
Date


Sarah B. Jones
Environmental Review Officer



SAN FRANCISCO PLANNING DEPARTMENT

Community Plan Exemption Checklist

Case No.: 2013.1543E
Project Address: **1979 Mission Street Mixed-Use Project** at 1979 Mission Street and 2950-2978 16th Street
Zoning: Mission Street Neighborhood Commercial Transit (NCT)
Mission Street Formula Retail Restaurant Subdistrict
Mission Alcohol Restricted Use District
Fringe Financial Service Restricted Use District
105-E/55-X Height and Bulk District
Block/Lot: 3553/052
Lot Size: 57,312 square feet (1.3 acres)
Plan Area: Mission Area Plan the Eastern Neighborhoods Rezoning and Area Plans
Project Sponsor: Seth Mallen (Maximus BP 1979 Mission Street LLC)
345 Vidal Drive, San Francisco, CA 94132
(415) 584-4561
Staff Contact: Debra Dwyer
debra.dwyer@sfgov.org or (415) 575-9031

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

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

PROJECT DESCRIPTION



Project Location

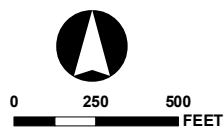
The 57,312-square-foot project site is in the Inner Mission neighborhood (Assessor's Block 3553, Lot 052), and forms the northern and eastern boundaries of the street-level plaza and northeastern entrance to the 16th Street Mission Bay Area Rapid Transit District (BART) Station. The proposed project would demolish the two existing commercial buildings and surface parking lot on the site, and construct an up to 10-story, 105-foot (121 feet with elevator penthouse) mixed-use residential building with ground-floor retail and off-street/bicycle parking/building services in basement. The proposed project would include 291,923 gsf of residential uses (331 dwelling units) and 32,676 gsf of commercial space. The project site is located within the Mission Area Plan of the Eastern Neighborhoods Rezoning and Area Plans, on the block bounded by Mission Street to the west, 16th Street to the south, and Capp Street to the east, as shown on Figure 1.

The project site is fairly level and slopes gently downward to the east. Existing uses on the site are summarized in Table 1, and are shown on Figure 2. Two buildings totaling approximately 50,915 gross square feet (gsf) and ranging in height from 23 to 30 feet currently occupy the site. The building on the northwestern portion of the site, 1979/1985 Mission Street, is an approximately 15,477-gsf, one-story building with a mezzanine and partial basement; it was constructed in 1909, and is currently occupied by a retail pharmacy (Walgreens). The building along the southern portion of the site, 2950-2978 16th Street, is an approximately 35,438-gsf, one-story building with a mezzanine and basement, both of which extend along most of the building; it was also constructed in 1909. The building is currently occupied by two restaurants, a grocery store, and a bar (Burger King, Mission Hunan Restaurant, HWA Lei Market, and City Club, respectively). The northern portion of the building at 2950-2978 16th Street is vacant. An approximately 24,210-square-foot surface parking lot with 54 parking spaces, designated for Walgreens shoppers, is at the northeastern corner of the site, and is accessed from Capp Street.



Source: URS, 2014

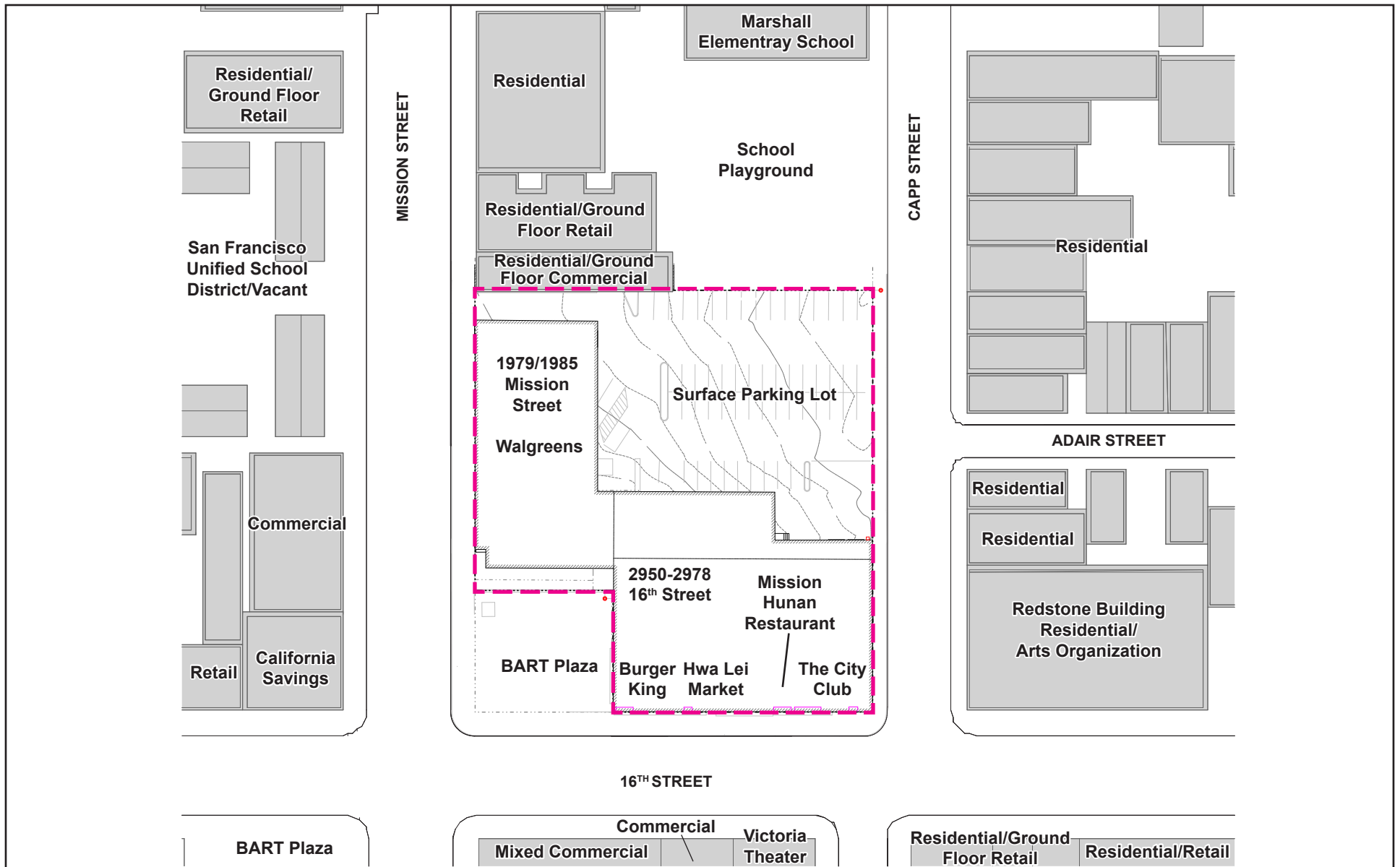
-  BART Station Entrance and Plaza
-  Park/Open Space



PROJECT LOCATION

1979 Mission Street Project
San Francisco, California

FIGURE 1



Source: Skidmore, Owings & Merrill LLP, 2014.

 Project Site



Not to Scale

Table 1
Existing Site Characteristics

Address	Building Area (square feet)	Year Constructed	Building Characteristics/Use
1979/1985 Mission Street	15,477	1909	One-story building with basement and mezzanine/retail use
2950-2978 16th Street	35,438	1909	One-story building with partial basement and partial mezzanine/restaurant, retail, entertainment uses
None (Capp Street)	—	N/A	Surface parking lot
Total	50,915	—	—
Source: 1979 Mission Street, Environmental Evaluation Application, January 2014.			

The project site is entirely covered by buildings or surface pavement, and there is no existing vegetation on the project site. The project site is currently bordered by approximately five street trees along Mission Street, and no trees along 16th or Capp streets. The two mature palm trees on Mission Street would be retained, and the other three trees would be replaced with five new trees. In addition, approximately 17 street trees would be planted along 16th and Capp streets as part of the project.

The existing buildings were previously evaluated in the Inner Mission North Historic Resource Survey, and found to be ineligible for individual listing in the National Register of Historic Places, the California Register of Historical Resources (CRHR), or as a local listing.¹ Although the buildings do not contribute to any potential historic districts in the area, individually designated historical resources are directly to the east and south of the project site along Mission and 16th streets.

The immediate neighborhood is characterized by a mix of commercial and residential uses, as shown on Figure 2. Buildings range in height from two to five stories, typically with ground-floor storefronts and residential or commercial uses above. Generally, there are retail/commercial uses along Mission and 16th streets, and residential uses along Capp Street. Marshall Elementary School at 1575 15th Street is immediately north of the site on Capp Street, with its entrance on 15th Street.

The project site is in the Mission Area Plan of the Eastern Neighborhoods Rezoning and Area Plans. Prior to adoption of the Eastern Neighborhood Plans, the project site was zoned Neighborhood Commercial Moderate-scale (NC-3). Prior to the rezoning, the western portion of the site along Mission Street was in the 105-E height and bulk district, and the portion of the site along 16th and Capp streets was in the 50-X height and bulk district. Currently, the project site is in the Mission Street Neighborhood Commercial Transit Zoning District (Mission Street NCT). The portions of the site along Mission and 16th streets are in the 105-E height and bulk district, and the portion of the site along Capp Street is in the 55-X height and bulk district.² The project site is located within three special use districts: the Mission Street Formula Retail Restaurant Subdistrict, the Mission Alcohol Restricted Use District, and the Fringe Financial Service Restricted Use District.

¹ San Francisco Planning Department, 2011. Inner Mission North Historic Resource Survey. Available online at: sf-planning.org/index.aspx?page=2686; and at the Planning Department, 1650 Mission Street, Suite 400, San Francisco as part of Case file 2011.0401U. Accessed June 2014.

² The E bulk designation limits the portion of a building that is over 65 feet tall to a maximum length of 110 feet and a maximum diagonal dimension of 140 feet, and the X bulk designation has no bulk controls (Planning Code Section 270).

Both Mission Street and South Van Ness Avenue (the latter of which is two blocks to the east of the project site), are major north/south roadways through the Mission neighborhood. The regional roadways that serve the site are U.S. Highway 101, Interstate 80, and Interstate 280. U.S. Highway 101 provides access to and from the project vicinity via an on-ramp at South Van Ness Avenue at Division Street, and an off-ramp at Mission Street and Duboce Avenue. In addition to BART service at the adjacent station, several San Francisco Municipal Railway (Muni) bus routes—including the 14 Mission, 14L Mission Limited, 22 Fillmore, 33 Stanyan, and 49 Van Ness-Mission³ routes—provide connections from the site to various locations in San Francisco.

Project Characteristics

The proposed project would demolish the two existing commercial buildings and surface parking lot on the site, and construct a new 389,808-gsf, mixed-use residential project that would include 331 dwelling units, 32,676 square feet of commercial space, 163 off-street parking spaces (136 residential, 22 commercial, 4 car-share, and 1 Americans with Disabilities Act (ADA)-accessible van parking spaces), 192 bicycle parking spaces (162 Class I and 30 Class II bicycle parking spaces), an interior courtyard, and three roof decks (as summarized in Table 2).

The proposed site plan is shown on Figure 3, and the proposed streetscape plan is shown on Figure 14. Figures 3 through 12 show the proposed floor plans; Figure 13 shows the roof open space plans; Figures 15 through 20 show the proposed building elevations, sections, and massing; and Figures 21 through 23 show visual simulations for the proposed project.

The proposed building would include residential uses above ground-floor retail spaces, and would have three separate structures above level 2, which is the podium level. An interior courtyard on level 2 would provide open space for project residents between the buildings, as shown on Figure 13. These three structures above the podium level—referred to as the Mission Street component, 16th Street component, and Capp Street component—would range from five to ten stories. As shown on Figures 15 and 16, both the Mission Street and 16th Street components would be up to 10 stories and 105 feet in height. The total height to the top of the 16-foot-tall elevator penthouse would be approximately 121 feet, inclusive of the rooftop mechanical equipment, which would be concealed by a 10-foot architectural screen. Pursuant to Planning Code Section 260(b)(1)(B), the mechanical and elevator penthouses are exempt from the Planning Code height limits, but are considered in the context of environmental review.

The top four floors (floors 7, 8, 9, and 10) of the Mission Street component would be set back from the northern property line. This setback would vary in depth as measured from the northern property line, ranging from approximately 17 to 30 feet. These floors would also be set back approximately 6 feet from the western property line for the majority of the building's length along Mission Street. Balconies at the southern portion of the Mission Street component would face the BART plaza. A trellis element with climbing plants would extend down from the roof to the podium level in front of the balconies on this side of the building to create a marquee-like architectural feature, as shown on Figure 21. The trellis element would not extend beyond the property line with the BART plaza. The top three floors (floors 8 through 10) of the 16th Street component would be set back from the BART plaza by approximately 41.5 feet to distinguish this structure from the Mission Street component, and to allow sunlight into both the interior courtyard and the BART plaza. Balconies at the western portion of the 16th Street component would also face the BART plaza. The Capp Street component would be up to five stories, and a

³ As part of the Transit Effectiveness Project (TEP), the 49 Van Ness-Mission is approved for limited stop service, and will become the 49L Van Ness-Mission Limited. Additional information regarding the TEP is available online at <http://www.sfmta.com/projects-planning/projects/tep-transit-effectiveness-project>. Accessed July 7, 2014.

Table 2
Project Characteristics

Lot	Dimensions
Size	57,312 square feet
Length	185 feet (Mission Street)/160 feet (16th Street)/260 feet (Capp Street)
Height	55 to 105 feet/total 121 feet with elevator penthouse ¹
Proposed Uses	Area (gsf)
Residential	291,923
Commercial (Retail)	32,676
Parking/loading/building services	65,209
Total	389,808
Proposed Units	Amount (Approx. Percent)
Dwelling Units	331 (100%)
Micro	30 (9%)
Studio	84 (25%)
1-Bedroom	81 (24%)
2-Bedroom	123 (37%)
3-Bedroom	12 (4%)
4-Bedroom	1 (1%)
Vehicle Parking Spaces	163 ²
Bicycle Parking Spaces	192 ³
Open Space	Area (sf)
Publicly accessible (adjacent to the BART plaza to the north and east sides)	2,625
Common (roof decks and interior podium courtyard)	28,741 ⁴
Private decks	9,175 ⁵
Building Characteristics	Description
Mission Street component ⁶	6 to 10 stories (ground-floor retail, residential above)/105 feet height/total 121 feet inclusive of the elevator penthouse
16th Street component ⁶	7 to 10 stories (ground-floor retail, residential above)/105 feet height/total 121 feet inclusive of the elevator penthouse
Capp Street component ⁶	4 to 5 stories (residential)/55 feet height/total 71 feet inclusive of the elevator penthouse
Ground floor	Retail: 32,676 gsf; multiple tenant spaces; Residential: 3 residential lobbies; 3 residential units on Capp Street; Garage: 3 freight/loading spaces; 1 ADA-accessible van parking space; building services; and 4 Class I bicycle parking spaces for commercial tenants.
Basement	162 vehicle parking spaces (22 retail parking spaces; 4 car share spaces; and 136 residential parking spaces); 158 Class I bicycle parking spaces; Building services, including emergency generator.

Source: 1979 Mission Street, Conditional Use Authorization Application, March 2014.

Notes:

ADA = Americans with Disabilities Act

BART = Bay Area Rapid Transit

gsf = gross square feet

¹ Consistent with the Planning Code Height and Bulk designations for the project site, the building heights range from 55 to 105 feet; up to 16 feet for the elevator penthouse is exempt from this height limit.

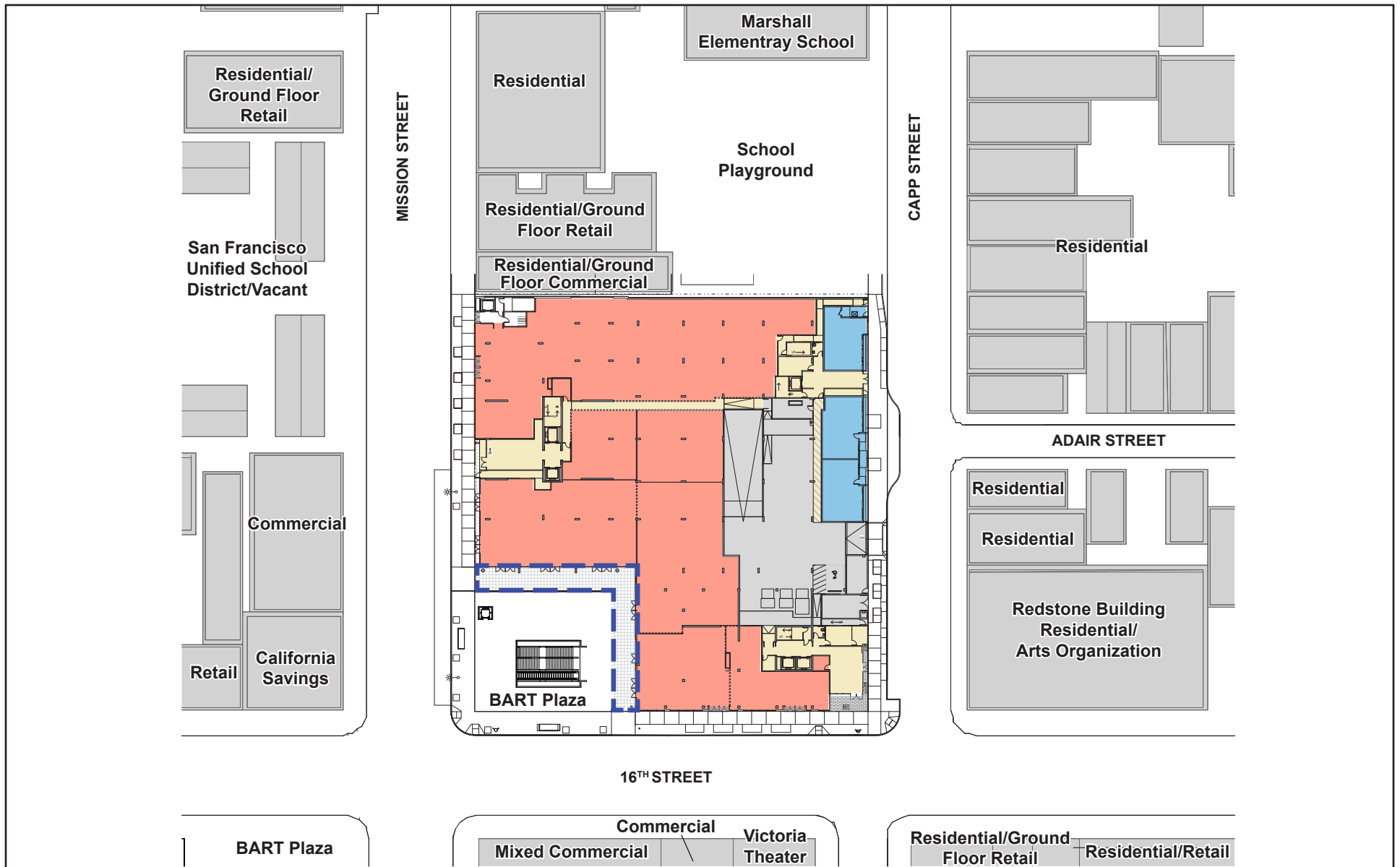
² Vehicle parking spaces: for residents – 136 off-street parking spaces (92 of which would be stacker spaces); for retail – 22 off-street parking spaces. In addition, there would be four car-share spaces and one ADA-accessible van space.

³ Bicycle parking spaces: 162 Class I bicycle parking spaces in the basement/ground floor; 30 Class II bicycle parking spaces on street.

⁴ Provided in compliance with Planning Code Section 736.93 Usable Open Space Per Residential Unit.

⁵ 29 units have private balconies, terraces, or patios as usable open space that meet the Planning Code requirements. Of the 26 units, 10 have qualifying patios on the courtyard in excess of 100 square feet each, 16 have qualifying balconies or terraces exceeding 80 square feet.

⁶ The proposed project is one building with three separate structures above a common ground-floor and basement level.



- Retail
- Multi-family Residential Lobby
- Residential Unit
- Garage/Loading

 New Public Open Space



FIGURE 3



Source: Skidmore, Owings & Merrill LLP, 2014.



BASEMENT PLAN – PARKING GARAGE

1979 Mission Street Project
San Francisco, California

FIGURE 4



Source: Skidmore, Owings & Merrill LLP, 2014.

Project Site

M = Micro
 S = Studio
 J1 = Junior one bedroom
 A through H = The layout type
 ("2A" is 2-bedroom unit with
 Layout A)

1 = One bedroom
 1+ = One bedroom, plus den
 2 = Two bedroom
 3 = Three bedroom
 4 = Four bedroom



Not to Scale

FLOOR PLAN – LEVEL 5

1979 Mission Street Project
 San Francisco, California

FIGURE 7



[] Project Site

M = Micro
S = Studio
J1 = Junior one bedroom
A through H = The layout type
("2A" is 2-bedroom unit with
Layout A)

1 = One bedroom
1+ = One bedroom, plus den
2 = Two bedroom
3 = Three bedroom
4 = Four bedroom



Not to Scale

FLOOR PLAN – LEVEL 6

1979 Mission Street Project
San Francisco, California

FIGURE 8



Source: Skidmore, Owings & Merrill LLP, 2014.

[] Project Site
 M = Micro
 S = Studio
 J1 = Junior one bedroom
 A through H = The layout type
 ("2A" is 2-bedroom unit with
 Layout A)

1 = One bedroom
 1+ = One bedroom, plus den
 2 = Two bedroom
 3 = Three bedroom
 4 = Four bedroom

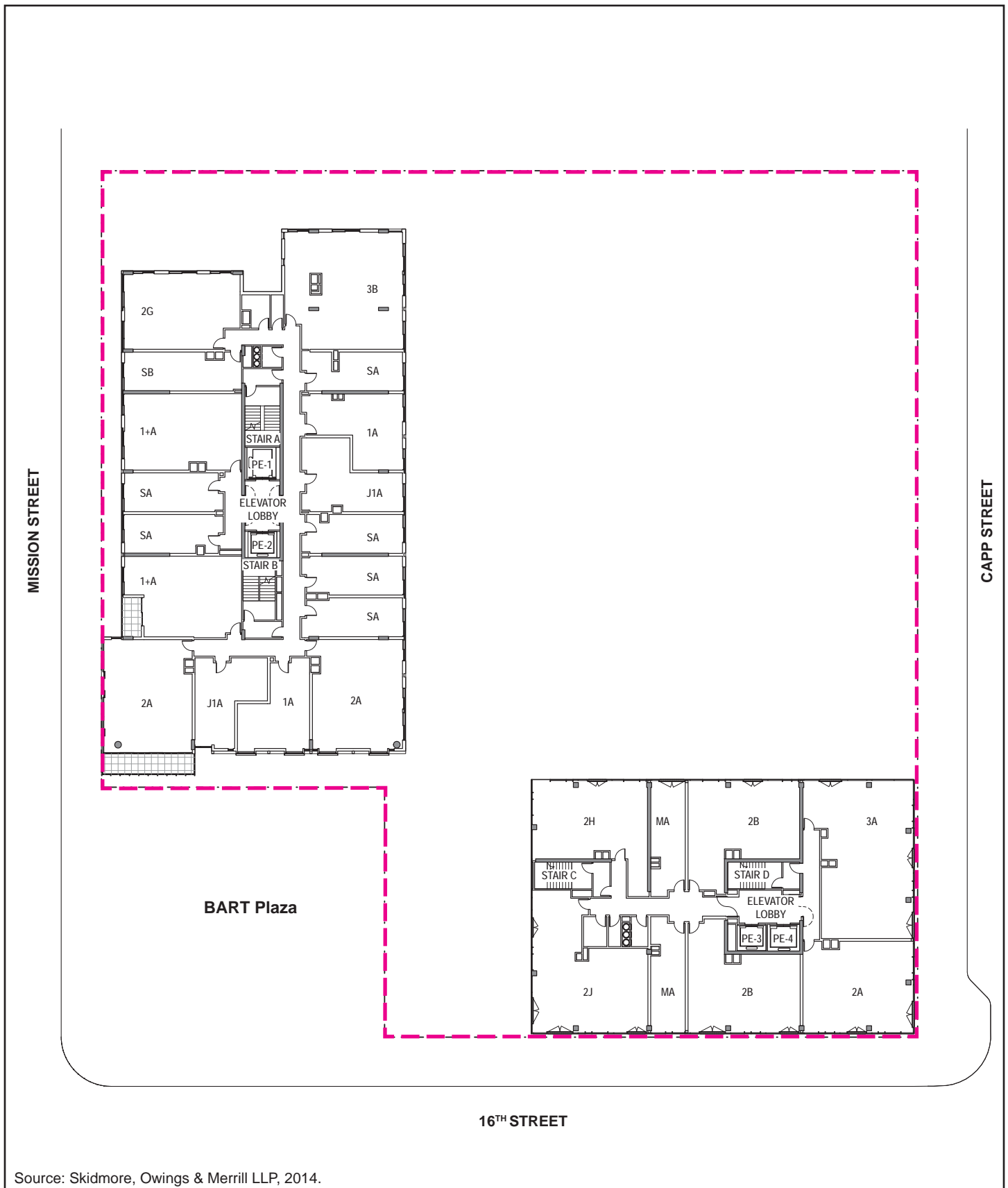


Not to Scale

FLOOR PLAN – LEVEL 7

1979 Mission Street Project
 San Francisco, California

FIGURE 9



Source: Skidmore, Owings & Merrill LLP, 2014.

[Pink Dashed Line] Project Site

M = Micro
 S = Studio
 J1 = Junior one bedroom
 A through H = The layout type
 ("2A" is 2-bedroom unit with
 Layout A)

1 = One bedroom
 1+ = One bedroom, plus den
 2 = Two bedroom
 3 = Three bedroom
 4 = Four bedroom



Not to Scale

FLOOR PLAN – LEVEL 9

1979 Mission Street Project
 San Francisco, California

FIGURE 11



Source: Skidmore, Owings & Merrill LLP, 2014.

[] Project Site

M = Micro

S = Studio

J1 = Junior one bedroom

A through H = The layout type
("2A" is 2-bedroom unit with
Layout A)

1 = One bedroom

1+ = One bedroom, plus den

2 = Two bedroom

3 = Three bedroom

4 = Four bedroom



Not to Scale

FLOOR PLAN – LEVEL 10

1979 Mission Street Project
San Francisco, California

FIGURE 12



- | | |
|---------------------------|---|
| ① Private Patios, typical | Mission Street Building (105 Feet, 10 Stories) |
| ② Amenity Space | Capp Street Building (55 Feet, 5 Stories) |
| ③ Informal Play Area | 16th Street Building (105 Feet, 10 Stories) |
| ④ Urban Agriculture Area | |
| ⑤ Event Space | |
| ⑥ Outdoor Lounge Area | |
| ⑦ Dog Run | |

Source: Skidmore, Owings & Merrill LLP, 2014.



FLOOR PLAN – ROOF
 1979 Mission Street Project
 San Francisco, California
FIGURE 13



- | | | |
|---|---|--|
| <p>1 Mission Street
Planted tree wells with pedestrian pass-throughs and special paving.</p> <p>2 16th Street
Planted tree wells with pedestrian pass-throughs and special paving.</p> <p>3 Capp Street
Stormwater planting tree wells with pedestrian pass-throughs and special paving.</p> <p>4 BART Plaza</p> | <p>5 Special Paving</p> <p>6 Bulb-out</p> <p>7 Raised Crossing</p> <p>8 Palm</p> <p>9 Bike Corral, typical</p> <p>10 Bus Shelter</p> <p>11 Street Light, typical</p> | <p> New Public Open Space</p> <p> Proposed</p> <p> Existing to Remain</p> |
|---|---|--|

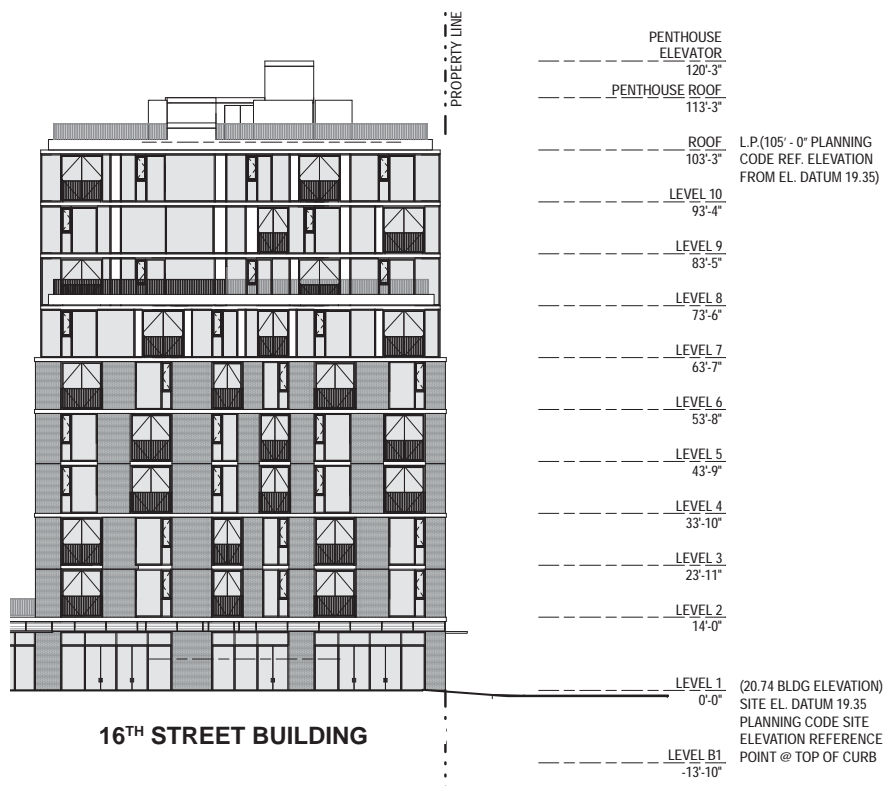
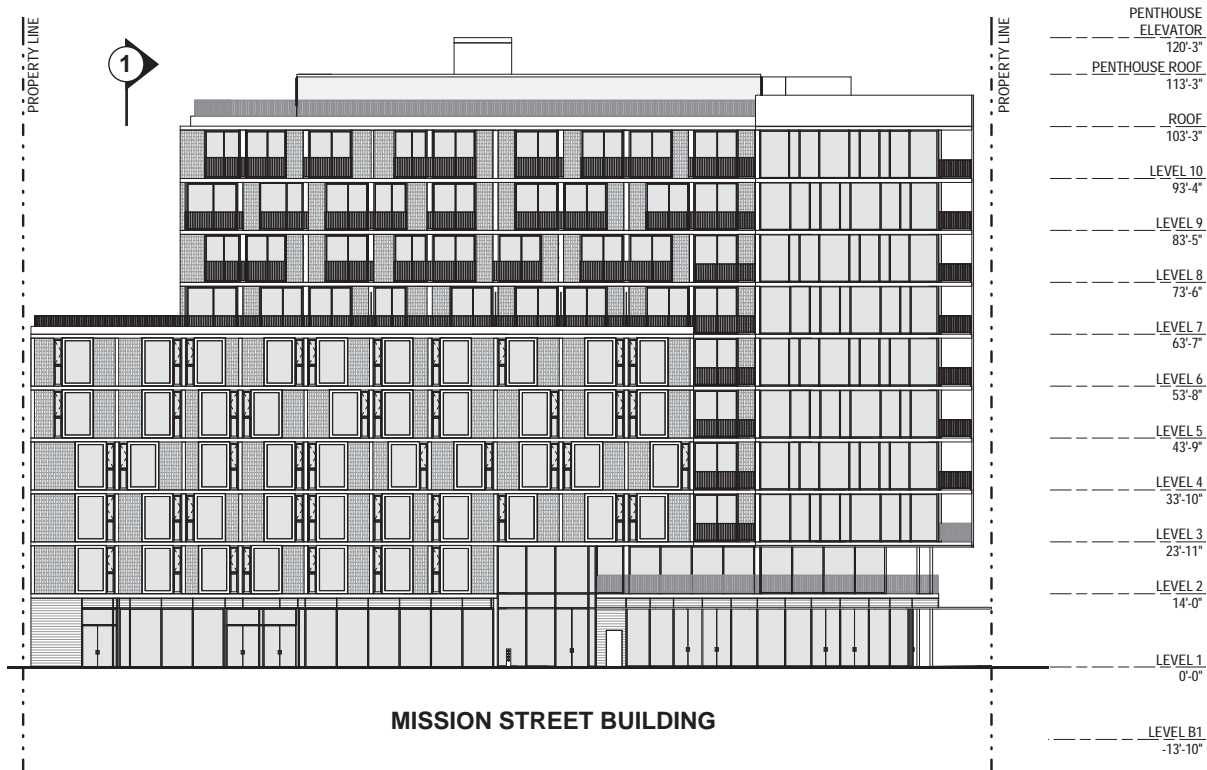
Source: Skidmore, Owings & Merrill LLP, 2014.



STREETSCAPE IMPROVEMENTS

1979 Mission Street Project
San Francisco, California

FIGURE 14



Source: Skidmore, Owings & Merrill LLP, 2014.

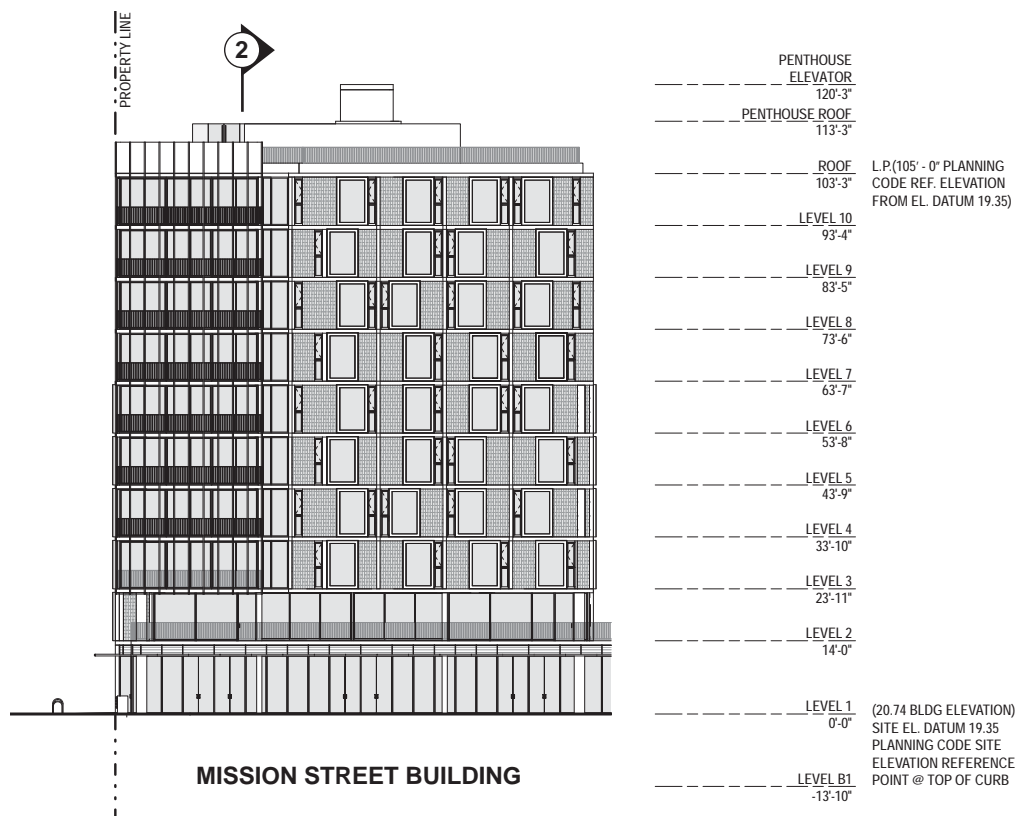
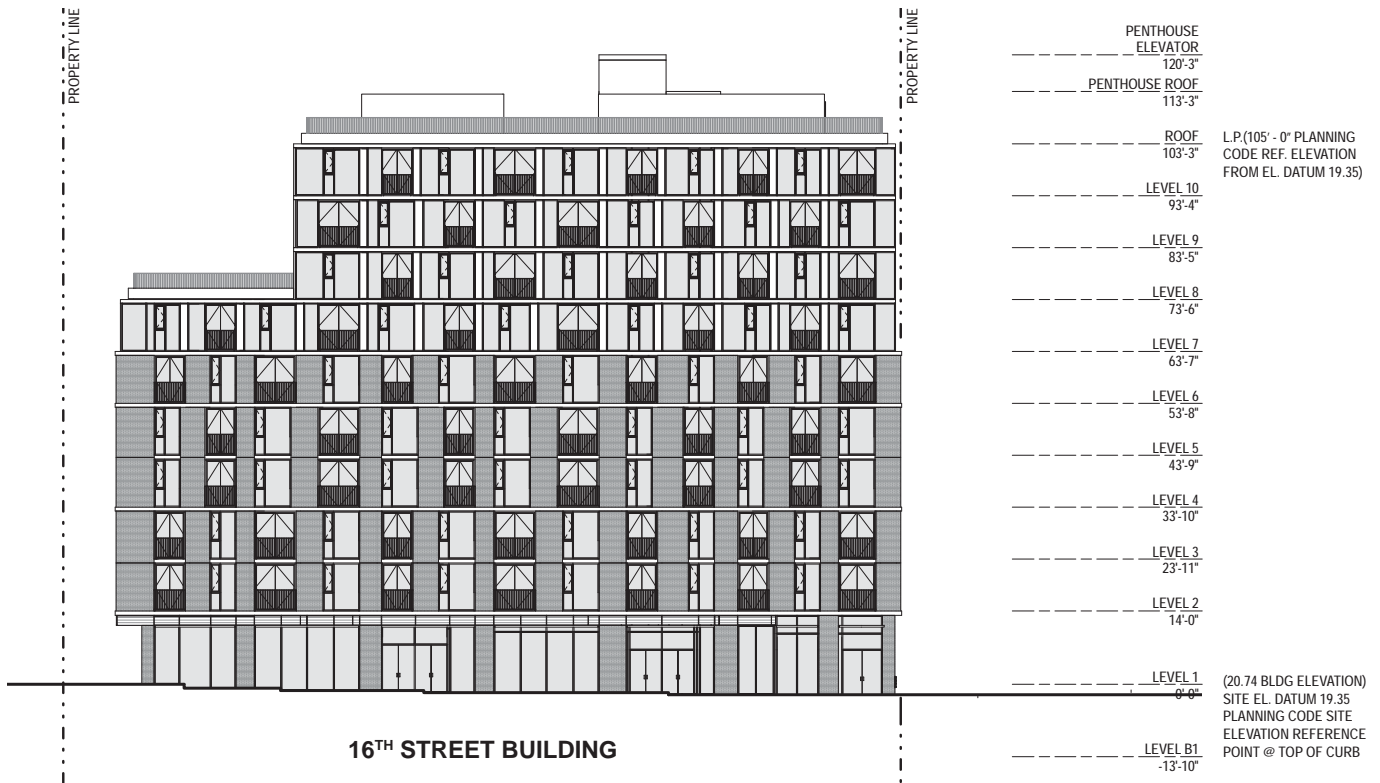
Not to Scale

See Figure 19
Cross Section (1)

**PROPOSED ELEVATION –
WEST, MISSION STREET**

1979 Mission Street Project
San Francisco, California

FIGURE 15



Source: Skidmore, Owings & Merrill LLP, 2014.

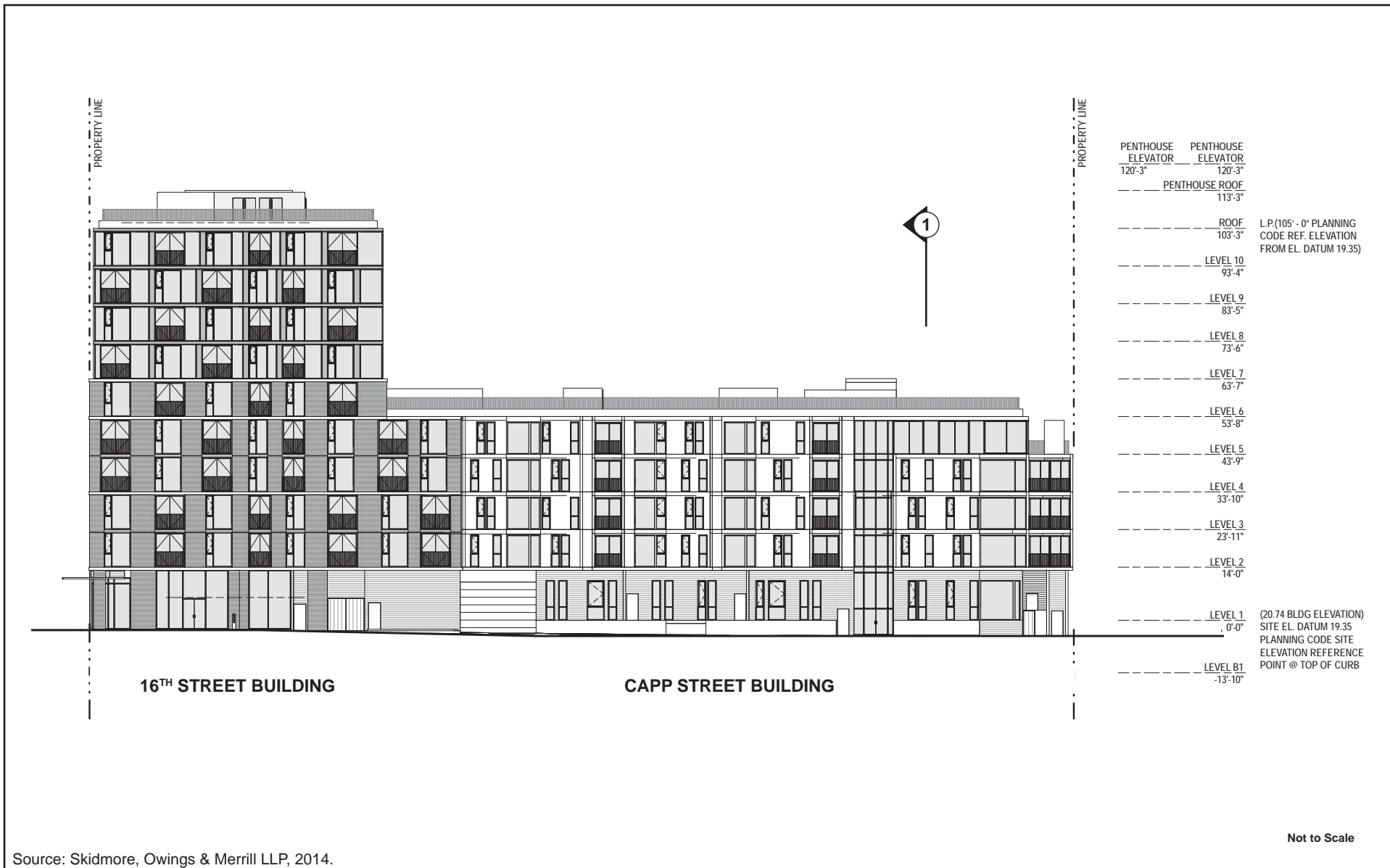
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See Figure 19
Longitudinal Section (2)

PROPOSED ELEVATIONS – SOUTH, 16TH STREET

1979 Mission Street Project
San Francisco, California

FIGURE 16



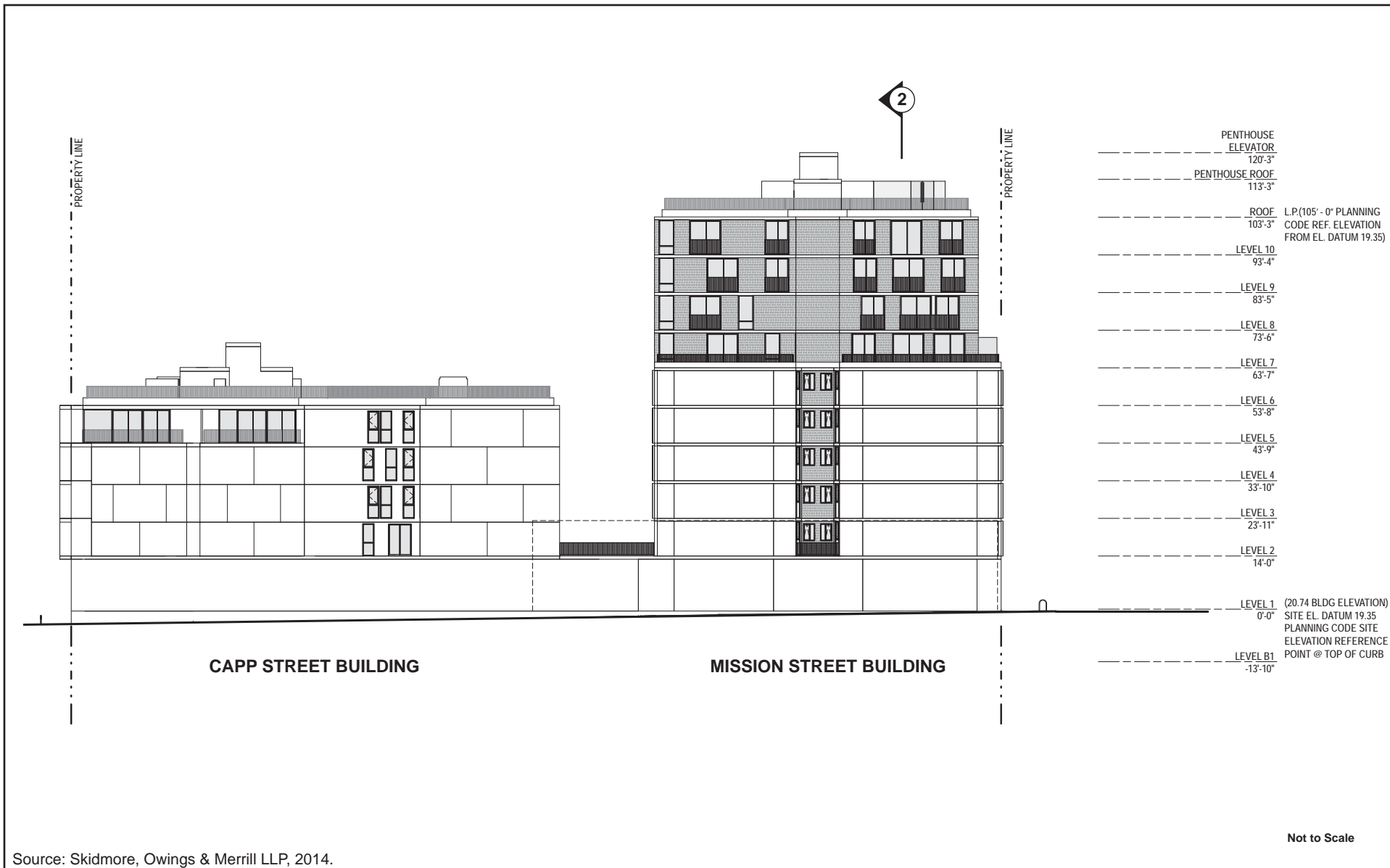
Source: Skidmore, Owings & Merrill LLP, 2014.

See Figure 19
Cross Section (1)

**PROPOSED ELEVATION –
EAST, CAPP STREET**

1979 Mission Street Project
San Francisco, California

FIGURE 17

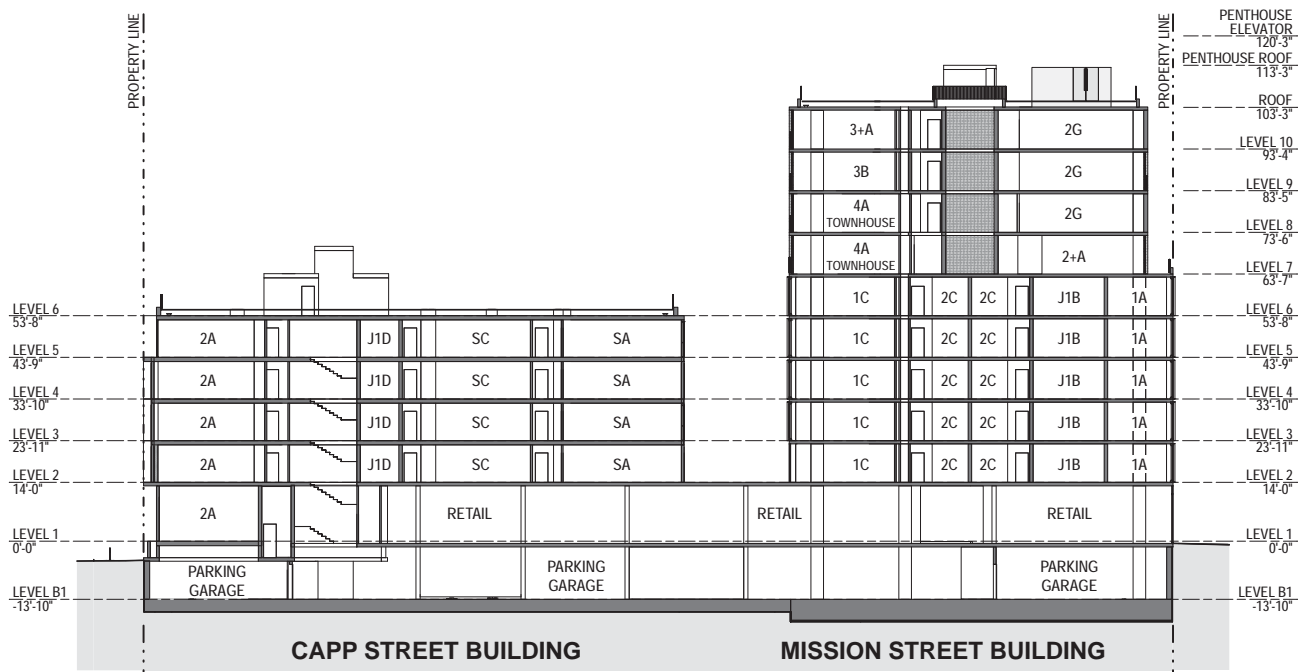


See Figure 19
Longitudinal Section (2)

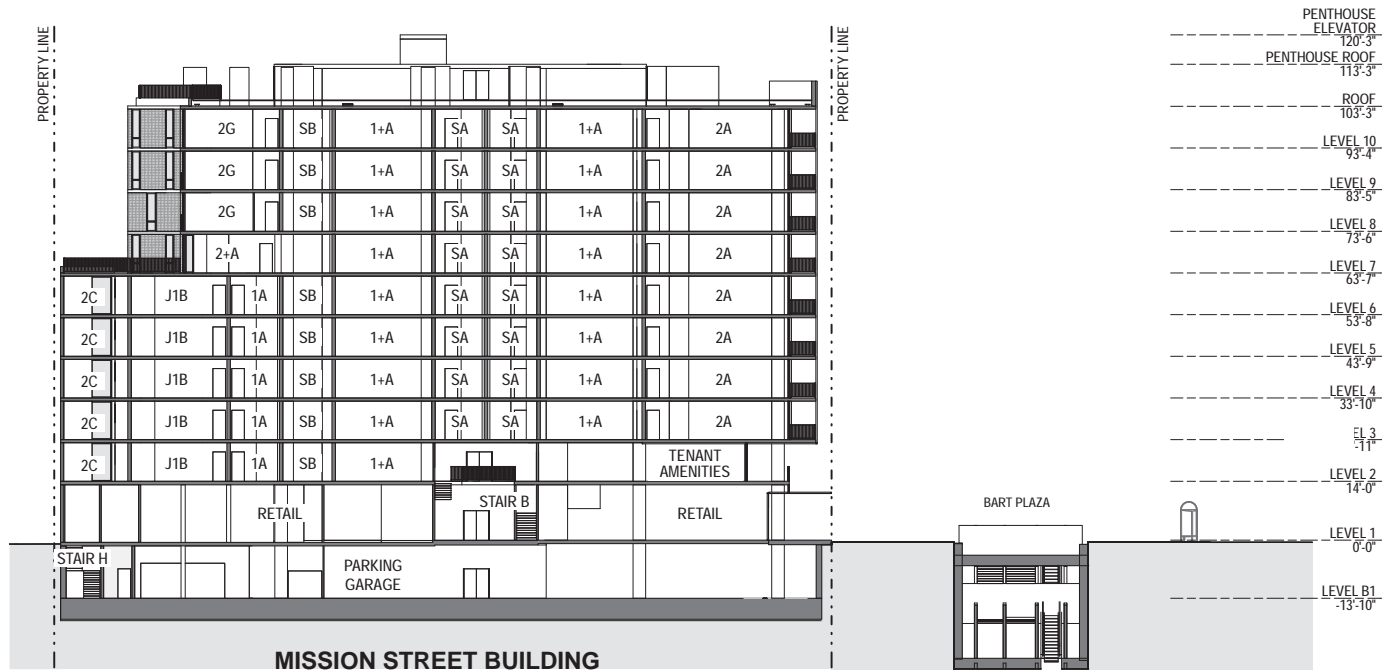
PROPOSED ELEVATION – NORTH

1979 Mission Street Project
San Francisco, California

FIGURE 18



Cross Section (1)



Longitudinal Section (2)

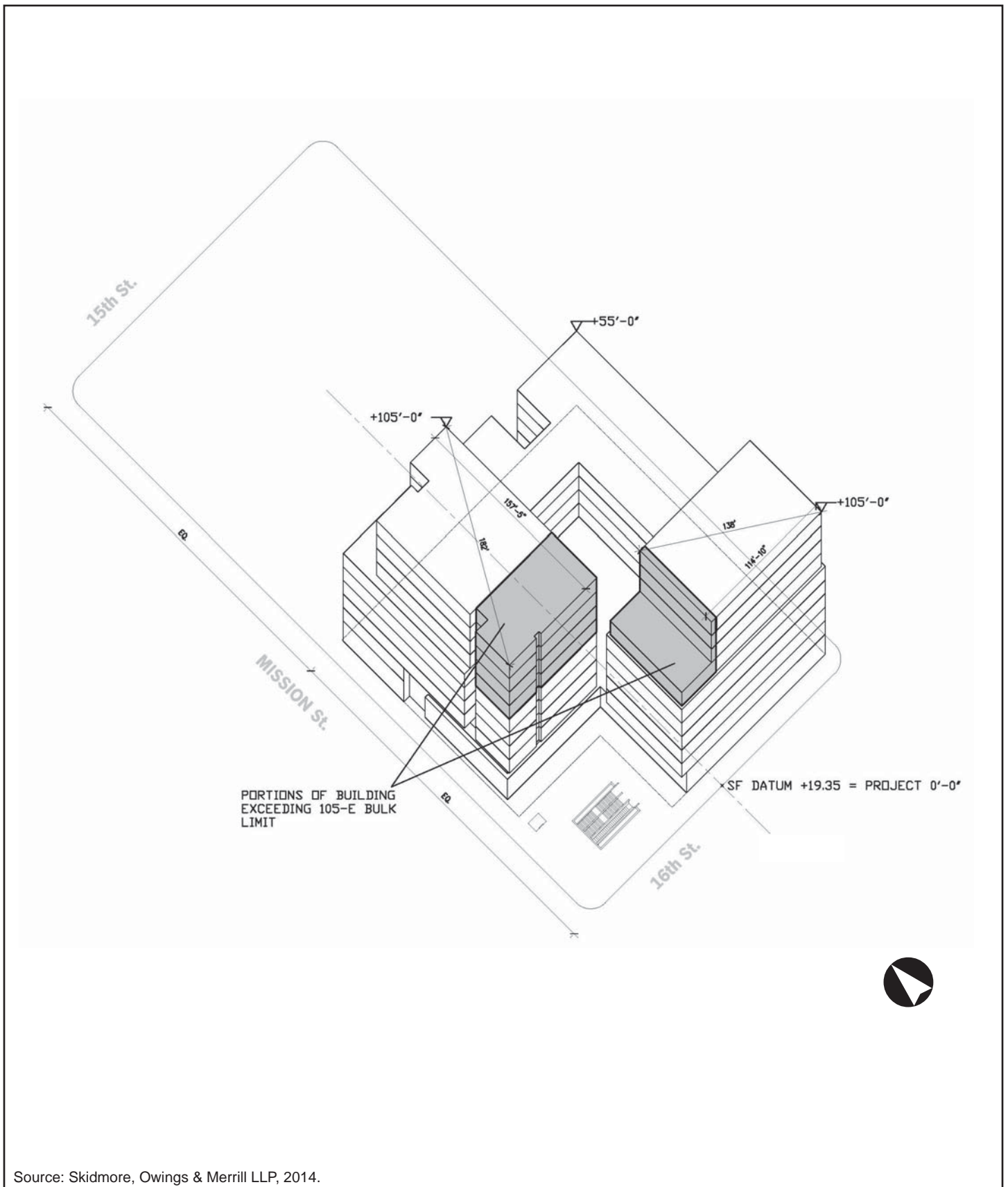
Source: Skidmore, Owings & Merrill LLP, 2014.

Not to Scale

PROPOSED SECTIONS

1979 Mission Street Project
San Francisco, California

FIGURE 19



PROPOSED MASSING SCHEME

1979 Mission Street Project
San Francisco, California

FIGURE 20



Source: Skidmore, Owings & Merrill LLP, 2014.

**VISUAL SIMULATION
MISSION STREET
– VIEW LOOKING NORTHEAST**

1979 Mission Street Project
San Francisco, California

FIGURE 21



Source: Skidmore, Owings & Merrill LLP, 2014.

VISUAL SIMULATION
16TH STREET – VIEW LOOKING EAST

1979 Mission Street Project
San Francisco, California

FIGURE 22



Source: Skidmore, Owings & Merrill LLP, 2014.

VISUAL SIMULATION
CAPP STREET – VIEW LOOKING NORTH

1979 Mission Street Project
San Francisco, California

FIGURE 23

maximum height of 55 feet; the top floor (floor 5) would be set back approximately 13 feet from the northern property line. The Capp Street component would have three residential units with entrances from the street, as well as a residential entrance/lobby for the upper floor Capp Street residential units. Building materials would be complementary among the three components, and would include cast-in-place and pre-cast concrete, glazed and unglazed brick, aluminum-framed glass windows, plaster, corrugated metal siding, metal trellis and guardrails, and glass storefronts.

Residential. The proposed project would have 331 residential units, which would include 30 micro units;⁴ 84 studios; 81 one-bedroom units; 123 two-bedroom units; 12 three-bedroom units; and 1 four-bedroom unit. The residential uses would be provided primarily on floors 2 through 10, in three separate structures above the podium level, except for three ground-floor units fronting on Capp Street. The floor plans for the residential portion of the project are shown on Figures 5 through 12. Residential entrances/lobbies to the three buildings would be located mid-building on Mission Street for the Mission Street component, at the corner of 16th and Capp streets for the 16th Street component, and toward the north end of Capp Street for the upper levels of the Capp Street component, as shown on Figure 3.

Retail. The ground floor of the proposed building would include approximately 32,676 gsf of retail use provided as multiple tenant spaces, as shown on Figure 3. Retail uses may include a pharmacy, marketplace/grocery store, and restaurants. The retail uses would front onto Mission and 16th streets, as well as the BART plaza, with multiple entrances to the retail spaces along these façades. The retail spaces would have a minimum floor-to-floor height of 14 feet.

Parking/Loading. Approximately 65,209 gsf of parking/loading/building services would be provided in the ground-floor and basement level garages, shown on Figures 3 and 4. Ingress and egress to freight loading and off-street parking would be via a single curb cut on Capp Street. Additionally, there would be an emergency generator in the basement to serve as a back-up power supply.

Parking. A total of 163 vehicle parking spaces would be provided. Of these, 162 parking spaces would be provided in the basement level as follows: 22 of these spaces would be independently accessible spaces for the retail uses; four would be car-share spaces; and 136 would be for residential uses (92 of which would be stacker spaces).⁵ One ADA-accessible van parking space would be provided on the ground-floor level. The basement garage and ground-floor levels would also house approximately 162 Class I bicycle spaces—four Class I bicycle parking spaces on the ground floor would be for commercial tenants, and 158 Class I bicycle parking spaces in the basement would be for residents—in compliance with Planning Code requirements. On-street bicycle parking would include 30 Class II bicycle spaces along Mission and Capp streets, as described in detail below.

There are five 20-foot-long metered on-street parking spaces on the eastern side of Mission Street along the project frontage; three metered spaces on the northern side of 16th Street (of which two are 26-foot-long spaces with restricted loading hours) along the project frontage; and 10 to 11 unmetered spaces on the western side of Capp Street along the project frontage. The proposed streetscape improvements described below would require the removal of one curbside parking space on Mission Street and three to four curbside parking spaces on Capp Street. After construction of the proposed project, the remaining on-street parking and loading spaces along the project site would be: four 22-foot-long metered spaces

⁴ A micro unit is a small studio unit that is up to 399 square feet, and would include a kitchen area, as well as living, dining, and sleeping areas in one room, plus a bathroom.

⁵ Vehicle stackers or lifts allow for vehicle storage where space is limited, by providing stacked storage.

on Mission Street; three loading spaces on 16th Street; and seven parking spaces on Capp Street along the project site.

Loading: Three freight-loading spaces would be provided on the ground-floor level.

Open Space. Along the northern and eastern sides of the BART plaza, the proposed project's ground-floor storefronts would be set back 15 feet from the property line, creating publicly accessible open space adjoining the BART plaza area, as shown on Figure 14. Usable open space for building residents per Planning Code Section 736.93 would be provided through a combination of private and common open spaces, including balconies, roof terraces, and a portion of the interior podium courtyard, as shown on Figure 13. The common open space would provide venues for the residents to have private events and gatherings. The proposed project would exceed the Planning Code requirement of 25,949 square feet of common usable open space by providing approximately 28,741 square feet in common roof decks, and a designated portion of the interior courtyard open space. In addition, 9,175 square feet of private balconies, terraces, and patios would be provided for 29 units.

Streetscape Improvements. A new 20-foot curb cut on Capp Street would be constructed to allow access to the project's garage. In addition to the open-space improvements described above, the project would include the following street improvements shown on Figure 14, in lieu of a portion of the Eastern Neighborhoods impact fee: a raised crosswalk across Capp Street at Adair Street; widening of the existing 9-foot Capp Street sidewalk to 12 feet on the western side of Capp Street between 16th and 15th streets; landscaping; and the addition of bulb-outs at the northwest corner of 16th Street/Capp Street and the western side of the Adair Street/Capp Street intersection, to calm traffic and improve pedestrian safety. A bioswale⁶ feature for stormwater infiltration may be installed along the widened sidewalk areas along Capp Street immediately adjacent to the ground-floor residential units. Additional improvements along Mission, 16th, and Capp streets would include planted tree wells, special paving, and bicycle parking corrals,⁷ providing 30 Class II bicycle spaces. The Sponsor would apply to the San Francisco Municipal Transportation Agency (SFMTA) to have the two bicycle corrals installed within the public right-of-way on the street, as shown on Figure 14, and would fund their installation. There would be one bicycle parking corral for 16 bicycles on Mission Street, and one bicycle parking corral for 14 bicycles on Capp Street. Overall, these improvements would require the removal of one curbside parking space on Mission Street, and three to four curbside parking spaces on Capp Street, resulting in the removal of up to five parking spaces.

Construction

Construction is anticipated to occur over 21 months, with five phases: (1) demolition; (2) excavation, shoring, and underpinning; (3) concrete work for the foundation and podium; (4) superstructure/exterior skin; and (5) interior work. Construction hours would typically be from 7:00 a.m. to 4:00 p.m., Monday through Friday. Limited evening work (4:00 p.m. to 8:00 p.m.) and work on weekends (8:00 a.m. to 4:00 p.m.) would be required for Phases 3, 4, and 5.

The site would be excavated up to approximately 22 feet below grade. Approximately 34,523 cubic yards of soil would be excavated at the site; except for a small amount under the vehicle ramp, all the excavated soil would be removed from the site and disposed of at an appropriate facility, depending on soil quality.

⁶ Bioswales are landscape elements consisting of soils, vegetation, and/or riprap; they are designed to remove silt and pollution from surface runoff water before it enters the storm drain.

⁷ Bicycle parking corrals are on-street bicycle racks placed in the parking lane on the roadway. The two corrals proposed for this project would provide approximately 14 and 16 bicycle parking spaces, respectively.

A pre-drilled, soldier-pile-and-lagging system with internal bracing would be used for stabilizing the area of excavation adjacent to Mission Street and the BART plaza; the shoring system would be designed and installed in compliance with BART requirements, as noted below. Where the excavation abuts the existing buildings on the northern side of the project site and public right-of-ways, tiebacks would be used.⁸

The first approximately 50 feet of the project site along Mission Street would be in the BART “zone of influence” (ZOI), and thus would be subject to BART design and engineering requirements.^{9,10} The portion of the foundation in the BART ZOI would be designed to avoid imposing any loads on the BART structure. The foundation would be a mat foundation with a maximum thickness of 5.5 feet. In the ZOI, the foundation would be supported by drilled piers that would transfer the building load to the dense native sand below the ZOI. Pile driving would not be used for the project.¹¹

Construction activities would require temporary sidewalk and parking lane closures for the entire construction period. On the eastern side of Mission Street, the bus stop adjacent to the BART plaza would remain open, and a lighted and covered pedestrian walkway would be constructed over the adjacent sidewalk. The sidewalk north of the bus stop on Mission would be closed, and a pedestrian detour would be provided in the parking lane. On the northern side of 16th Street adjacent to the project site, the bus stop would remain open, and a lighted and covered walkway would be provided for pedestrians on the existing sidewalk. The parking lane east of the bus stop would be closed to accommodate deliveries and staging for the project. The sidewalk and parking lane adjacent to the project site on the western side of Capp Street would be closed; pedestrian traffic would be redirected to the eastern side of Capp Street.

PROJECT APPROVALS

The proposed 1979 Mission Street project would require the approvals listed below.

Actions by the Planning Commission

- Approval of an application pursuant to Section 303, Conditional Uses, and subject to the further requirements of Section 304, Planned Unit Development. The proposed project would require conditional use authorization for the following exceptions: lot size limit (Planning Code Section 121.1); use size limit (Planning Code Sections 121.2 and 121.6); rear yard size and location (Planning Code Section 134); bay window width and separation (Planning Code Section 136[c][2]; bulk limitations (Planning Code Section 270); streetscape and pedestrian improvements pursuant to the City’s Better Streets Policy and Plan (Planning Code Section 138.1); and dwelling unit exposure to open space (Planning Code Section 140).

⁸ Treadwell & Rollo, 2013. Geotechnical Investigation, 1979 Mission Street. Prepared for Maximus Real Estate Partners. January 30. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

⁹ BART, 2012. Procedures for Permit and Plan Review. June. Available online at: bart.gov/sites/default/files/docs/Permits_and_Plan_Review_062012.pdf.

¹⁰ BART, 2003. General Guidelines for Design and Construction over or Adjacent to BART’s Subway Structures. July. Available online at: bart.gov/sites/default/files/docs/Gen_Guide_Subway_062012.pdf.

¹¹ Maximus – BP 1979 Mission LLC, 2014. Environmental Evaluation Application for 1979 Mission Street Project, Attachment to Application for Block 3553, Lot 052. January 14. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

Actions by Other City Departments

- *Planning Department and Department of Building Inspection (DBI)* – Approval of the site permit and addenda thereto. General Plan Referral for proposed condominium map and sidewalk widening.
- *DBI* – Approval of demolition, grading, and building permits for the demolition of the existing buildings and construction of the new building. Permit for underpinning of adjacent structures.
- *SFMTA Board* – Approval of the proposed curb modifications, parking space removal, bicycle corrals in the right-of-way, and bicycle racks on sidewalks.
- *Bureau of Streets and Mapping, San Francisco Public Works (Public Works)* – Subdivision and condominium map approval and encroachment permits for sidewalk underground vaults. Street and sidewalk permits for any modifications to public streets, sidewalks, protected trees, street trees, or curb cuts.
- *San Francisco Public Utilities Commission* – Approval of any changes to sewer laterals. Approval of an erosion and sediment control plan prior to commencing construction, and compliance with post-construction stormwater design guidelines, including a stormwater control plan; required for projects that result in ground disturbance of an area greater than 5,000 square feet.
- *San Francisco Department of Public Health (DPH)* – Approval of a dust control plan.

Actions by Other Agencies

- *Bay Area Air Quality Management District (BAAQMD)* – Issuance of permits for installation and operation of the emergency generator, and certification to the DBI that all asbestos-containing building materials have been removed and properly disposed in accordance with the law prior to demolition of the existing buildings.
- *BART* – Plan review and approval of shoring and foundation within BART ZOI, and issuance of permit to work within or adjacent to right-of-way.

Evaluation of Environmental Effects

This Community Plan Exemption (CPE) Checklist evaluates whether the environmental impacts of the proposed project are addressed in the Programmatic Environmental Impact Report for the Eastern Neighborhoods Rezoning and Area Plans (Eastern Neighborhoods PEIR).¹² The CPE Checklist indicates whether the proposed project would result in significant impacts that: (1) are peculiar to the project or project site; (2) were not identified as significant project-level, cumulative, or offsite effects in the PEIR; or (3) are previously identified significant effects, which as a result of substantial new information that was not known at the time that the Eastern Neighborhoods PEIR was certified, are determined to have a more severe adverse impact than discussed in the PEIR. Such impacts, if any, will be evaluated in a project-specific Mitigated Negative Declaration or Environmental Impact Report. If no such impacts are identified, the proposed project would be exempt from further environmental review in accordance with Public Resources Code Section 21083.3 and California Environmental Quality Act (CEQA) Guidelines Section 15183.

¹² San Francisco Planning Department, 2008. Eastern Neighborhoods Rezoning and Area Plans Programmatic Environmental Impact Report (PEIR), Planning Department Case No. 2004.0160E, State Clearinghouse No. 2005032048, certified August 7, 2008. Available online at: <http://www.sf-planning.org/index.aspx?page=1893>, accessed October 2, 2014, and at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2004.0160E.

Mitigation measures identified in the PEIR are discussed under each topic area, and measures that are applicable to the proposed project are provided under the Mitigation and Improvement Measures Section at the end of this checklist (starting on page 63).

The Eastern Neighborhoods PEIR identified significant impacts related to land use, transportation, cultural resources, shadow, noise, air quality, and hazardous materials. Additionally, the PEIR identified significant cumulative impacts related to land use, transportation, and cultural resources. Mitigation measures were identified for the above impacts and reduced all impacts to less-than-significant except for those related to land use (cumulative impacts on Production, Distribution, and Repair [PDR] use), transportation (program-level and cumulative traffic impacts at nine intersections; program-level and cumulative transit impacts on seven Muni lines), cultural resources (cumulative impacts from demolition of historical resources), and shadow (program-level impacts on parks).

The proposed project would demolish the two existing commercial buildings and a surface parking lot on the project site, and construct a five- to ten-story, 55- to 105-foot-tall, new 389,808-gsf, mixed-use residential project. The project would include 331 dwelling units and 32,676 square feet of ground-floor commercial space with a basement parking garage. As discussed below in this checklist, with the exception of wind, shadow, and geology and soils, the proposed project would not result in new, significant environmental effects, or effects of greater severity than were already analyzed and disclosed in the Eastern Neighborhoods PEIR.

Aesthetics and Parking impacts for Transit Priority infill Development

Public Resources Code Section 21099(d), effective January 1, 2014, provides that, “aesthetics and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment.” Accordingly, aesthetics and parking are no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

- a) The project is in a transit priority area;
- b) The project is on an infill site; and
- c) The project is residential, mixed-use residential, or an employment center.

The proposed project meets each of the above three criteria and thus, this checklist does not consider aesthetics or parking in determining the significance of project impacts under CEQA.¹³ Project elevations and visual simulations are included in the Project Description section, above, and an assessment of parking demand is included in the Transportation and Circulation section for informational purposes.

¹³ San Francisco Planning Department, 2014. Transit-Oriented Infill Project Eligibility Checklist for 1979 Mission Street, March 21. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
1. LAND USE AND LAND USE PLANNING— Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial impact upon the existing character of the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR determined that adoption of the Area Plans would result in an unavoidable significant impact on land use due to the cumulative loss of PDR activities. The proposed project would not remove any existing PDR uses and is not in a zoning district that was rezoned to allow non-PDR uses as part of the Eastern Neighborhood Plans. Therefore, the proposed project would not contribute to any impact related to loss of PDR uses that was identified in the Eastern Neighborhoods PEIR.

Furthermore, the Citywide Planning and Current Planning Divisions of the Planning Department have determined that the proposed project is permitted in the Mission Street NCT zoning district, Mission Street Formula Retail Restaurant Subdistrict, Mission Alcohol Restricted Use District, Fringe Financial Service Restricted Use District, and 105E/55X Height and Bulk District. The proposed project is consistent with the development density and land use as envisioned in the Mission Area Plan. The proposed project falls within the Mission-Valencia Corridor generalized zoning district, which encourages the development of transit-oriented ground-floor commercial uses with housing and/or small offices on upper floors. The Mission Area Plan also calls for active ground-floor uses surrounding BART plazas, and encourages reduced parking and increased density in acknowledgment of good transit service in this area. The project sponsor is seeking a bulk exception along the façades that surround the 16th Street Mission BART plaza (northeastern entry plaza). However, the project's proposed density is consistent with the Mission Area Plan's acknowledgement of the Mission Street corridor and the BART plazas as important, transit-oriented nodes where increased development is appropriate.

The proposed project would require a Conditional Use authorization from the Planning Commission pursuant to Planning Code Section 303, and is subject to further requirements pursuant to Planning Code Section 304 for Planned Unit Developments for modifications to the following: lot size limit (Planning Code Section 121.1); use size limit (Planning Code Sections 121.2 and 121.6); rear yard size and location (Planning Code Section 134); bay window width and separation (Planning Code Section 136[c][2]); bulk limitations (Planning Code Section 270); street and pedestrian improvements pursuant to the City's Better Streets Policy and Plan (Planning Code Section 138.1); and dwelling unit exposure to open space (Planning Code Section 140). These actions would not require amendments to the existing zoning, the Mission Area Plan, or the San Francisco General Plan.^{14,15}

¹⁴ Varat, Adam, 2014. San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Citywide Planning and Policy Analysis, 1979 Mission Street, August 20. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

¹⁵ Joslin, Jeff, 2014. San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Current Planning Analysis, 1979 Mission Street, September 10. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

For these reasons, implementation of the proposed project would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR related to land use and land use planning, and no mitigation measures are necessary.

Topics:	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
2. POPULATION AND HOUSING— Would the project:				
a) Induce substantial 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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

One of the objectives of the Eastern Neighborhoods Area Plans is to identify appropriate locations for housing in the City's industrially zoned land to meet the citywide demand for additional housing. The PEIR concluded that an increase in population in the Plan Areas is expected to occur as a secondary effect of the proposed rezoning and that any population increase would not, in itself, result in adverse physical effects, but would serve to advance key City policy objectives, such as providing housing in appropriate locations next to Downtown and other employment generators and furthering the City's Transit First policies. It was anticipated that the rezoning would result in an increase in both housing development and population in all of the Area Plan neighborhoods. The Eastern Neighborhoods PEIR determined that the anticipated increase in population and density would not result in significant adverse physical effects on the environment. No mitigation measures were identified in the PEIR.

The proposed project would remove two existing buildings, which currently provide approximately 33,102 square feet of retail space, including a Walgreens, a former Dollar Store (now vacant), a fast food restaurant, a bar, a small grocery store, and several restaurants; neither building contains any housing units. The proposed project would construct 331 dwelling units and approximately 32,676 square feet of retail space; this would result in a net increase of 331 dwelling units and approximately 291,923 square feet of residential uses, and a net decrease of approximately 426 square feet of commercial space. Based on the average household population size for the Census Tract in which the proposed project is located (Census Tract 201), and average employee per commercial square foot of use based on Planning Department guidelines, the proposed project would result in an estimated net population increase of approximately 661 persons.^{16,17} However, given the proposed decrease in commercial square footage on the site, the number of commercial/retail employees would not be anticipated to increase, and may slightly decrease compared to the number of existing employees. These direct effects of the proposed

¹⁶ The average population per household in the project vicinity is two persons per household.

U.S. Census Bureau, 2010. 2010 Census, 2010 SF1 100% Data, Profile of General Population and Housing Characteristics. Available online at: <http://factfinder2.census.gov>. Accessed November 5, 2014.

¹⁷ Average number of employees per square foot of commercial space is 350.

San Francisco Planning Department, 2002. Transportation Impact Analysis Guidelines for Environmental Review. October. Available online at: sf-planning.org/Modules/ShowDocument.aspx?documentid=6753.

project on population and housing are within the scope of the population growth anticipated under the Eastern Neighborhoods Rezoning and Area Plans and were evaluated in the Eastern Neighborhoods PEIR.

Environmental analysis under CEQA is required to focus on the direct and indirect physical changes to the environment that could reasonably result from a proposed project. Accordingly, the displacement issue addressed under CEQA, and as stated above in the CEQA checklist, refers specifically to the direct loss of housing units that would result from proposed demolition of existing housing. This is because demolition of existing housing has the potential to result in a number of direct and indirect physical changes to the environment, such as the physical impacts of construction demolition activities and the physical impacts of constructing new housing to replace the housing lost. Here, the proposed project would not remove existing housing. Therefore, there would be no direct physical displacement effects as a result of the proposed project. In addition, because the proposed project includes new market-rate housing, it must comply with the requirements of the City's Inclusionary Affordable Housing program, which would address any potential indirect effects resulting from a need to construct new affordable housing. Finally, the possibility that the proposed project would contribute to rising residential or commercial rents is speculative, and is not a physical environmental effect subject to analysis under CEQA.

For the above reasons, the proposed project would not result in significant impacts on population and housing that were not identified in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
3. CULTURAL AND PALEONTOLOGICAL RESOURCES—Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Historic Architectural Resources

Pursuant to CEQA Guidelines Sections 15064.5(a)(1) and 15064.5(a)(2), historical resources are buildings or structures that are listed, or are eligible for listing, in the CRHR, or are identified in a local register of historical resources, such as Articles 10 and 11 of the San Francisco Planning Code. The Eastern Neighborhoods PEIR determined that future development facilitated through the changes in use districts and height limits under the Eastern Neighborhoods Area Plans could have substantial adverse changes on the significance of both individual historical resources and on historical districts within the Plan Areas. The PEIR determined that approximately 32 percent of the known or potential historical resources

in the Plan Areas could potentially be affected under the preferred alternative. The Eastern Neighborhoods PEIR found this impact to be significant and unavoidable. This impact was addressed in a Statement of Overriding Considerations with findings and adopted as part of the Eastern Neighborhoods Rezoning and Area Plans approval on January 19, 2009.

Based on the Inner Mission North Historic Resource Survey, conducted by the Planning Department and adopted by the San Francisco Historic Preservation Commission in 2011, the existing buildings on the project site do not qualify as historic resources under CEQA.^{18, 19, 20} In addition, the existing buildings are not included in a designated or potential historic district. As described in the Historical Resource Evaluation prepared for the proposed project,²¹ two City landmarks are located in the project vicinity. The Victoria Theater/Brown's Opera House at 2961 16th Street is City Landmark 215, and is across 16th Street from the project site. The San Francisco Labor Temple/Redstone Building at 2924-2948 16th Street is City Landmark 238, and is across Capp Street from the project site. In addition, 16 Category A-rated historical resources are within a half-block to one-block radius of the subject property, including 2001-2017 Mission Street (located at the southeastern corner of the intersection of Mission and 16th streets), and 2973 16th Street (located on 16th Street between 2001-2017 Mission Street and the Victoria Theater), which are both across 16th Street from the project site. The City landmarks and the Category A-rated properties are considered historical resources under CEQA. The proposed project would not affect any of these historic resources because of the physical distance between the project site and these resources, and because of the presence of other intervening non-historic structures.

The Historical Resource Evaluation assessed the potential for the proposed project to affect the four historic resources that are within the direct line of sight to the project site; these resources are located directly across 16th and Capp streets from the project site. However, these historic resources are not immediately adjacent to the project site, and are separated from it by at least the width of a city street; 16th Street is a 4-lane road plus two parking lanes, and Capp Street is a 2-lane road plus two parking lanes. In addition, the Landmark properties— the Victoria Theater/Brown's Opera House and the San Francisco Labor Temple/Redstone Building—have been deemed significant for their associations with historic events, rather than their physical architectural character. Therefore, the elements of the proposed project design, including materials, ornamentation, and architectural style, would not impact the historic nature or eligibility status of these nearby resources. Although the proposed project would exceed the height, scale, and mass of these historic resources, it would incorporate varied scale and heights for each of the three project components; these varied heights and scale would be generally compatible with the adjacent historic resources. Therefore, the proposed project would not affect any of these historical resources, either directly through physical alteration or indirectly by changing the immediate neighborhood setting in such a way that it would affect the individual eligibility of these historical resources.

¹⁸ San Francisco Planning Department, 2011. Inner Mission North Historic Resource Survey. This document is available online at: <http://www.sf-planning.org/index.aspx?page=2686> or at the Planning Department, 1650 Mission Street, Suite 400, San Francisco as part of Case file 2011.0401U.

¹⁹ San Francisco Historic Preservation Commission. June 1, 2011. Motion No. 0124: Adoption of Inner Mission North Historic Resource Survey. This document is available online at <http://commissions.sfplanning.org/hpcmotions/M0124.pdf>. Accessed November 24, 2014 or at the Planning Department, 1650 Mission Street, Suite 400, San Francisco as part of Case file 2011.0401U.

²⁰ San Francisco Planning Department, 2002. Department of Parks and Recreation Primary Record for 1979 Mission Street. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

²¹ Left Coast Architectural History, 2014. 1979 Mission Street Historical Resource Evaluation – Part 2. November 5. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

The Planning Department Preservation staff reviewed the Historical Resource Evaluation prepared for the project, and concurs with the findings and conclusions of this report.²² Therefore, the proposed project would not contribute to the significant historic resource impact identified in the Eastern Neighborhoods PEIR, and no historic resource mitigation measures would apply to the proposed project.

For these reasons, the proposed project would not result in significant impacts on historic architectural resources that were not identified in the Eastern Neighborhoods PEIR.

Archaeological Resources

The Eastern Neighborhoods PEIR determined that implementation of the Area Plan could result in significant impacts on archaeological resources and identified three mitigation measures that would reduce these potential impacts to a less-than-significant level. Eastern Neighborhoods PEIR Mitigation Measure J-1, Properties with Previous Studies, applies to properties for which a final archaeological research design and treatment plan (ARDTP) is on file at the Northwest Information Center (NWIC) and the Planning Department. A final archaeological research design and treatment plan has not been filed at the NWIC for the project site, and therefore this measure does not apply to the proposed project. PEIR Mitigation Measure J-2, Properties With No Previous Studies, applies to properties for which no archaeological assessment report has been prepared, or for which the archaeological documentation is incomplete or inadequate to serve as an evaluation of potential effects on archaeological resources under CEQA, and which are located outside Archeological Mitigation Zones A and B identified in the Eastern Neighborhoods PEIR. The project site is located within Archeological Mitigation Zone B; therefore, this measure would not apply to the proposed project. PEIR Mitigation Measure J-3, Mission Dolores Archeological District, applies to properties in the Mission Dolores Archeological District and may require that an ARDTP be prepared, and that the project be subject to archaeological testing mitigation. The project site is within the Mission Dolores Archeological District, and the project would entail soil disturbance from project excavation, and foundational support from a combination of mat slab, drilled piers, and a soldier-pile-and-lagging system to a depth of approximately 22 feet below existing grade. Therefore, Mitigation Measure J-3, which includes preparation of an ARDTP and implementation of archaeological testing, would apply to the proposed project.

The project site is sensitive principally for the following archaeological resource types: prehistoric period and Hispanic Period archaeological resources. An ARDTP has been prepared for the proposed project.²³ The purpose of the ARDTP is to further identify the potential for archaeological resources to be present within the project site; to develop a scientific research context within which to evaluate expected archaeological resources, to determine their potential for listing on the CRHR; and to develop appropriate investigation and treatment protocols, such as a testing plan, monitoring program, and data recovery plan. The Planning Department has determined that the third standard archaeological mitigation measure (testing) would apply to the proposed project. The ARDTP and the third standard archaeological mitigation measure (testing) are consistent with Mitigation Measure J-3, and no additional project mitigation is required. With implementation of this mitigation measure, impacts related to archaeological resources would be less than significant.

²² San Francisco Planning Department, 2014. Historic Resource Evaluation Response for 1979 Mission Street Project. November 14. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

²³ Shew, Dana, Mary Praetzellis, and Adrian Praetzellis, 2014. 1979 Mission Street, San Francisco, Archaeological Research Design and Treatment Plan. November 2014.

In accordance with the Eastern Neighborhoods PEIR requirements, the project sponsor has agreed to implement Project Mitigation Measure M-CP-1, Archaeological Testing, listed in the Mitigation and Improvement Measures section below (starting on page 63). With compliance with Project Mitigation Measure M-CP-1, the proposed project would not result in significant impacts related to archaeological resources that were not identified in the Eastern Neighborhoods PEIR.

For these reasons, the proposed project would not result in significant impacts on archaeological resources that were not identified in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
4. TRANSPORTATION AND CIRCULATION— Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR anticipated that growth resulting from the zoning changes would not result in significant impacts related to pedestrians, bicyclists, loading, emergency access, or construction. Because the proposed project is within the development projected under the Eastern Neighborhoods Rezoning and Area Plans, there would be no additional impacts on pedestrians, bicyclists, loading, emergency access, or construction beyond those analyzed in the Eastern Neighborhoods PEIR.

However, the Eastern Neighborhoods PEIR anticipated that growth resulting from the zoning changes could result in significant impacts on traffic and transit ridership, and identified 11 transportation mitigation measures. Even with mitigation, however, it was anticipated that the significant adverse cumulative traffic impacts and the cumulative impacts on transit lines could not be fully mitigated. Therefore, these impacts were found to be significant and unavoidable.

The project site is not in an airport land use plan area, or in the vicinity of a private airstrip. Therefore, the Community Plan Exemption Checklist topic 4c is not applicable.

Trip Generation

Trip generation of the proposed project was calculated using information in the 2002 *Transportation Impacts Analysis Guidelines for Environmental Review*, developed by the Planning Department, as explained in the traffic impact study (TIS) prepared for the proposed project.^{24,25} The proposed project would generate an estimated 14,559 person trips (inbound and outbound) on a weekday daily basis, consisting of 8,285 person trips by auto, 2,461 transit trips, 3,035 walk trips, and 778 trips by other modes. During the p.m. peak hour, the proposed project would generate an estimated 528 net new vehicle trips (accounting for vehicle occupancy data for this Census Tract and trips associated with the uses currently existing on the project site).

Traffic

The proposed project's vehicle trips would travel through the intersections surrounding the project block. Intersection operating conditions are characterized by the concept of Level of Service (LOS), which ranges from A to F, and provides a description of an intersection's performance based on traffic volumes, intersection capacity, and vehicle delays. LOS A represents free flow conditions, with little or no delay, while LOS F represents congested conditions, with extremely long delays. LOS D (moderately high delays) is considered the lowest acceptable level in San Francisco.

The intersections near the project site, within approximately 800 feet, include: (1) 15th Street/Mission Street; (2) 15th Street/Capp Street; (3) 16th Street/Valencia Street; (4) 16th Street/South Van Ness Avenue; (5) 16th Street/Mission Street; (6) 16th Street/Capp Street; (7) 17th Street/Mission Street; and (8) Adair Street/South Van Ness Avenue. In addition, intersection (9) Duboce Avenue/Mission Street/13th Street/U.S. Highway 101 Off-Ramp, would provide direct freeway access to and from the site.

Table 3 provides existing, existing plus project, and cumulative LOS data gathered for these intersections.²⁶ Because the project site was rezoned as part of the Eastern Neighborhood Plans project, the proposed project is within the cumulative conditions assumed in the PEIR.

Taking into account the existing trips associated with existing uses at the site, the proposed project would generate an estimated approximately 528 net new p.m. peak hour vehicle trips that could travel through surrounding intersections. As described below, this amount of new p.m. peak hour vehicle trips would not substantially increase traffic volumes at these or other nearby intersections; would not substantially increase delay that would cause intersections currently operating at acceptable LOS (LOS D or better) to deteriorate to unacceptable LOS (LOS E or LOS F); and would not substantially increase delay at intersections currently operating at unacceptable LOS. As shown in Table 3, all but one of the study intersections in the project vicinity currently operates at acceptable LOS conditions under existing conditions. The intersection of Duboce Avenue/Mission Street/13th Street/U.S. Highway 101 Off-Ramp

²⁴ CHS Consulting Group, 2014. 1979 Mission Street Mixed-Use Residential Project Transportation Impact Study. December 15. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

²⁵ San Francisco Planning Department, 2002. Transportation Impacts Analysis Guidelines for Environmental Review. October. This document is available online at <http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=6753>.

²⁶ CHS Consulting Group, 2014. 1979 Mission Street Mixed-Use Residential Project Transportation Impact Study. December 15. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

Table 3
Existing, Existing Plus Project, and Cumulative LOS of Intersections near the Project Site

Intersection	Existing LOS	Existing Plus Project LOS	Cumulative LOS (2025)
1. 15th Street/Mission Street	B	B	B
2. 15th Street/Capp Street	C	C	D
3. 16th Street/Valencia Street	B	C	C
4. 16th Street/South Van Ness Avenue	B	C	B
5. 16th Street/Mission Street	B	B	D
6. 16th Street/Capp Street	B	C	C
7. 17th Street/Mission Street	B	B	B
8. Adair Street/South Van Ness Avenue	B	B	C
9. Duboce Avenue/Mission Street/13th Street/ U.S. Highway 101 Off-Ramp	E	E	E
Source: CHS Consulting Group, 2014. Notes: BOLD indicates unacceptable LOS conditions (LOS E or F). LOS = Level of Service			

operates at unacceptable LOS E with a 71.5-second average delay. Under the existing plus project condition, all study intersections would continue to operate similarly at acceptable LOS conditions (LOS D or better) except for the Duboce Avenue/Mission Street/13th Street/U.S. Highway 101 Off-Ramp intersection, which would continue to operate at an unacceptable service level (LOS E) with a 72.2-second average delay and increase in delay of approximately 0.7 second. Similarly, under the cumulative conditions, the Duboce Avenue/Mission Street/13th Street/U.S. Highway 101 Off-Ramp intersection would continue to be the only study intersection that would operate at unacceptable LOS E conditions, and would have a slightly reduced average delay of 70.1 seconds.

Overall, the proposed project would result in minor changes to the delay per vehicle at the majority of study intersections. Because the intersection of Duboce Avenue/Mission Street/13th Street/U.S. Highway 101 Off-Ramp would operate at an unacceptable level (LOS E) with and without the proposed project, further review was necessary to determine whether the project's contribution to this intersection's conditions would result in a significant traffic impact. Under the existing plus project condition, the proposed project would not add any vehicles to the westbound critical right movement of this intersection. The project would add eight vehicle trips to the northbound right critical movement, which would represent 4.2 percent of the p.m. peak-hour northbound right-turning volume of 189 vehicles. Under the cumulative condition, the proposed project would add eight vehicles to the northbound right-turning critical movements, which would represent 2.3 percent of the p.m. peak-hour northbound right-turning volume of 341 vehicles, and is not considered to be a substantial contribution. Generally, when project-generated volumes contribute 5 percent or more to a failing critical movement's volume, it is considered a significant contribution and therefore a significant traffic impact. The proposed project would also add 27 vehicles to the southbound left-turning critical movement, which would represent 2.5 percent of the p.m. peak-hour southbound left-turning volume of 1,087 vehicles, and is not considered to be a substantial contribution. The proposed project would not add any vehicles to the westbound through critical movement. Therefore, the proposed project's contributions to this poorly operating intersection would not be considered cumulatively considerable, and the proposed project

would result in a less-than-significant cumulative traffic impact at the intersection of Duboce Avenue/Mission Street/13th Street/U.S. Highway 101 Off-Ramp.

The proposed project would not contribute considerably to LOS delay conditions, and its contribution of p.m. peak-hour vehicle trips would not be a substantial proportion of the overall traffic volume or of the new vehicle trips generated by Eastern Neighborhoods Plans' projects. The project would not result in significant traffic impacts under existing plus project conditions. Similarly, the proposed project would not contribute considerably to 2025 cumulative LOS delay conditions. Therefore, the proposed project would not have any significant project-level or cumulative traffic impacts.

For the above reasons, the proposed project would not result in significant traffic impacts that were not identified in the Eastern Neighborhoods PEIR.

Although the proposed project is not expected to cause any new significant traffic impacts, a number of measures could be implemented to further lessen the already less-than-significant effect of project-generated vehicle traffic in the project vicinity. The project sponsor has agreed to implement the following measures: Project Improvement Measure I-TR-1, Monitoring and Abatement of Queues; Project Improvement Measure I-TR-2, Active Parking Management Controls; and Project Improvement Measure I-TR-3, Implement Transportation Demand Management Strategies to Reduce Single Occupancy Vehicle Trips, which would require the owner/operator of the parking facility to actively monitor vehicle queues along Capp Street and employ methods as needed to abate queues; reduce single-occupancy driving to/from the project site; and promote car-sharing and the use of nearby transit, bicycle, and pedestrian facilities to access the project site. The full text of these measures is listed in the Mitigation and Improvement Measures section below (starting on page 63). These improvement measures would further reduce the less-than-significant traffic impacts of the project.

Transit

The project site is within a quarter mile of several local transit lines, including Muni lines 12, 14, 14L, 22, 33, and 49. The proposed project would be expected to generate 2,461 daily transit trips, including 335 during the p.m. peak hour. Given the availability of multiple transit options immediately adjacent to the project site, the addition of 335 p.m. peak-hour transit trips would be accommodated by existing capacity. Therefore, the proposed project would not result in unacceptable levels of transit service or cause a substantial increase in delays or operating costs that could result in significant adverse impacts in transit service.

Each of the rezoning options in the Eastern Neighborhoods PEIR identified significant and unavoidable cumulative impacts relating to increases in transit ridership on Muni lines, with the Preferred Project having significant impacts on seven lines. Of those lines, the project site is within a quarter-mile of Muni lines 22 Fillmore, 33 Stanyan, and 49 Van Ness-Mission. Mitigation measures proposed to address these transit impacts related to pursuing enhanced transit funding; conducting transit corridor and service improvements; and increasing transit accessibility, service information, and storage/maintenance capabilities for Muni lines in the Eastern Neighborhoods. Implementation of the above measures is contingent upon the identification of additional funding sources, and is the responsibility of the relevant City agencies. Even with mitigation, however, cumulative impacts on the above lines were found to be significant and unavoidable, and a Statement of Overriding Considerations related to the significant and unavoidable cumulative transit impacts was adopted as part of the PEIR Certification and project approval. Additionally, since the PEIR certification, the SFMTA has continued to address transit service throughout the City, including for the Eastern Neighborhoods. In particular, with approval of the San Francisco Transportation and Road Improvement Bond – Proposition A in 2014, the Muni Forward improvements (which include projects formerly called the Transit Effectiveness Project [TEP]) will be

made in the immediate project vicinity. Service improvements for the 14 Mission, 14L Mission Limited, 22 Fillmore, 33 Stanyan, and 49L Van Ness-Mission routes have been approved and will be implemented in the next year or so. In addition, travel time reduction proposals to improve transit reliability for both the Mission and 16 street corridors will be implemented within the next 5 years.

The proposed project would not contribute considerably to the conditions identified in the Eastern Neighborhoods PEIR, because its relatively minor contribution of 335 p.m. peak-hour transit trips would not be a substantial proportion of the overall additional transit volume generated by Eastern Neighborhood projects. The proposed project also would not contribute considerably to 2025 cumulative transit conditions, and therefore would not result in any significant cumulative transit impacts.

For the above reasons, the proposed project would not result in significant impacts that were not identified in the Eastern Neighborhoods PEIR related to transit, and would not contribute considerably to cumulative transit impacts that were identified in the Eastern Neighborhoods PEIR.

Pedestrians

The proposed project would generate 697 pedestrian trips (335 transit and 362 walk) during a typical weekday p.m. peak hour. The majority of these pedestrian trips would be generated by the residential and restaurants uses. The proposed project would include multiple pedestrian entrances to accommodate residents, employees, patrons, and other visitors.

The new pedestrian trips generated by the proposed project could be accommodated on the existing sidewalks and crosswalks adjacent to the project site. Proposed streetscape changes to sidewalk areas would continue to provide adequate capacity for pedestrians walking adjacent to the project site and to/from nearby transit facilities or to adjacent buildings and streets.

The proposed project includes pedestrian improvements that comply with Planning Code sections to implement the City's Better Streets Policy and Plan, which would enhance pedestrian safety and comfort along Mission, 16th, and Capp streets. Along Capp Street, the safety of students traveling to and from Marshall Elementary School would be enhanced by project features, which include a wider sidewalk on the western side of Capp Street, new high-visibility crosswalks for pedestrian access crossing Capp Street at Adair Street, and new bulb-outs along the western side of Capp Street at 16th Street, and at Capp Street and Adair Street. A speed table (high-visibility, tabletop-style raised intersection) would be installed at the intersection of Capp and Adair streets. The entire intersection would be at the same height as the Capp Street sidewalks, and would slow traffic along Capp Street, and improve pedestrian visibility and safety while crossing Capp Street.

The proposed project would include one driveway access point along the western side of Capp Street to access the parking garage. Vehicle flow in and out of the garage would be managed via traffic controls and audible/visual notification that would be situated at the parking garage entrance to alert pedestrians of exiting vehicles. The proposed mid-block bulb-out along the western side of Capp Street would remove one on-street parking space, and no parking would be permitted adjacent to the north of the parking garage driveway, which would allow for adequate sight distances for vehicles entering/exiting the parking garage to observe any crossing pedestrians.

The proposed project would not result in overcrowding on public sidewalks, interfere with pedestrian circulation to nearby areas and buildings, or create potentially hazardous conditions for pedestrians. Therefore, pedestrian impacts resulting from the project would be less than significant. In addition, Project Improvement Measures I-TR-1 and I-TR-2, described above, would be implemented to reduce potential conflicts between vehicles entering the parking garage, and pedestrians and other users. The project

sponsor has agreed to implement Project Improvement Measure I-TR-4, Installation of Traffic Calming Devices at Basement Garage Exiting Lane, which requires the project sponsor to install appropriate traffic calming devices (e.g., speed bump, rumble strips, “slow speed” signage, etc.) at the exiting travel lane along the garage driveway to reduce speeds of existing vehicles traveling out of the parking garage, and to further reduce potential vehicle-pedestrian conflicts. The project sponsor has also agreed to implement Project Improvement Measure I-TR-5: Coordination of Move-in/Move-Out Operations and Large Deliveries, to enforce appropriate loading procedures to avoid any blockages along Capp Street during loading activities, and reduce any potential conflicts between freight/delivery operators, movers, and pedestrians walking along Capp Street. These measures, listed in the Mitigation and Improvement Measures section below (starting on page 63), would further reduce less-than-significant pedestrian-related impacts.

Parking

Public Resources Code Section 21099(d), effective January 1, 2014, provides that, “aesthetics and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment.” Accordingly, aesthetics and parking are no longer to be considered in determining whether a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

- a) The project is in a transit priority area;
- b) The project is on an infill site; and
- c) The project is residential, mixed-use residential, or an employment center.

The proposed project meets each of the above three criteria; therefore, this determination does not consider the adequacy of parking in determining the significance of project parking impacts under CEQA.²⁷ The Planning Department acknowledges that parking conditions may be of interest to the public and the decision makers. Therefore, the following parking demand discussion is provided for informational purposes only.

The parking demand for the new residential and retail uses associated with the proposed project was determined based on the methodology presented in the 2002 *Transportation Impacts Analysis Guidelines for Environmental Review*.²⁸ Throughout the course of an average weekday, the demand for parking would be for 761 parking spaces. The proposed project would provide 158 off-street spaces, excluding the four car-share spaces and the one ADA-accessible van parking space. Thus, as proposed, the project would have an unmet parking demand of an estimated 603 parking spaces per day. The number of off-street parking spaces proposed by the project would be less than the calculated parking demand anticipated for the project. However, the project site is well served by public transit, including Muni, BART, and pedestrian and bicycle facilities. Although parking in the project vicinity may be more challenging with construction of the proposed project, the proposed project is removing a minimal amount of on-street parking (up to five on-street spaces), and would provide streetscape improvements to improve pedestrian conditions along Capp Street. Unmet parking demand associated with the project would not materially affect the overall parking conditions in the project vicinity in such a way that hazardous conditions or significant delays to alternate travel modes would be created.

²⁷ San Francisco Planning Department, 2014. Transit-Oriented Infill Project Eligibility Checklist for 1979 Mission Street, March 21. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

²⁸ San Francisco Planning Department, 2002. Transportation Impacts Analysis Guidelines for Environmental Review. October. This document is available online at <http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=6753>.

Furthermore, the project site is in the Mission Street NCT zoning district, where, under Section 151.1 of the Planning Code, the proposed project would not be required to provide any off-street parking spaces. It should be noted that the Planning Commission has the discretion to adjust the number of onsite parking spaces included in the proposed project, typically at the time that the project entitlements are sought. The Planning Commission may not support the parking ratio proposed. In some cases, particularly when the proposed project is in a transit-rich area, the Planning Commission may not support the provision of any off-street parking spaces. This is, in part, owing to the fact that the parking spaces are not “bundled” with the residential units. In other words, residents would have the option to rent or purchase a parking space, but one would not be automatically provided with the residential unit.

If the project were ultimately approved with no off-street parking spaces, the proposed project would have an unmet parking demand of 761 spaces. Given that the proposed project site is well-served by transit, bicycle, and pedestrian facilities, a reduction in the number of off-street parking spaces associated with the proposed project, even if no off-street spaces are provided, would not result in significant delays or hazardous conditions.

Demand and competition for on-street and off-street parking is likely to increase over time, due to the land use development and increased density anticipated along the Mission Street corridor—particularly for the segment between 13th and Cesar Chavez streets, as well as along 16th Street east of Mission Street. Additionally, implementation of the City’s *Transit First* Policy, Better Streets Policy and Plan, and related projects, which promote alternate modes of travel and sustainable street designs, or altered to accommodate other types of parking (commercial or passenger loading/unloading), may cause on-street parking to be further removed, especially along commercial corridors. Furthermore, on-street parking removal for projects such as the Muni Forward improvements for the Mission Street and 16th Street transit corridors—in combination with future cumulative growth and potential cumulative parking loss from reasonably foreseeable land use development as well as infrastructure—may result in increased levels of traffic circling looking for parking; increased instances of double parking and parking on the sidewalk or in the driveways; or longer and more persistent queues to enter off-street parking facilities. This could create hazardous conditions or significant delays affecting traffic, transit, bicycles, or pedestrians. The potential for such conditions to be realized is unknown, because a shortage of parking supply could also cause some residents and commuters to alter their mode of travel or travel behavior from single-occupancy vehicles to alternate modes such as transit, walking, or bicycling. Because there are numerous alternatives to travel by private passenger vehicle for project residents and visitors, there is no evidence that the proposed project would result in indirect significant impacts associated with parking demand.

Parking conditions are not static, because parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel. Whether a shortfall in parking creates such conditions will depend on the magnitude of the shortfall and the ability of drivers to change travel patterns or switch to other travel modes. If a substantial shortfall in parking caused by a project creates hazardous conditions or significant delays in travel, such a condition could also result in secondary physical environmental impacts (e.g., air quality or noise impacts caused by congestion), depending on the project and its setting.

The absence of a ready supply of parking spaces, combined with available alternatives to automobile travel (e.g., transit service, taxis, bicycles or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service or other modes (walking and biking), would be in keeping with the City’s “Transit First” policy and numerous San Francisco General Plan Policies, including those in the Transportation Element. The City’s Transit First Policy, established in the

City's Charter Article 8A, Section 8A.115, provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation."

The transportation analysis accounts for potential secondary effects, such as cars circling and looking for a parking space in areas of limited parking supply, by assuming that all drivers would attempt to find parking at or near the project site and then seek parking farther away if convenient parking is unavailable. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area, and therefore choose to reach their destination by other modes (i.e., walking, biking, transit, taxi). If this occurs, any secondary environmental impacts that may result from a shortfall in parking in the vicinity of the proposed project would be minor, and the traffic assignments used in the transportation analysis, as well as in the associated air quality, noise and pedestrian safety analyses, would reasonably address potential secondary effects.

Loading

The proposed project would provide three off-street loading spaces that would be located on the ground floor of the parking garage. Access to these spaces would be provided at the parking garage driveway along the western side of Capp Street. These off-street loading spaces would be designated for freight/delivery activities for residential and retail uses, and would also be used for garbage pick-up activities and residential move-in/move-out activities.

The proposed project would comply with the minimum off-street loading space requirements per the Planning Code, and will meet the proposed project's freight-loading demand. The provision of on-street loading spaces along public roadways would be subject to approval by the SFMTA. In addition, the loading spaces in the parking garage would provide adequate capacity for access and maneuvering of vehicles associated with deliveries and garbage operations, and would be designed to avoid significant conflicts with other moving and/or parked vehicles, and to reduce conflicts between delivery/garbage trucks and other vehicles attempting to enter or exit the garage. The proposed project's loading activities would not create potentially hazardous traffic conditions or significant delays affecting traffic, transit, bicycles, or pedestrians, and the proposed project would have a less-than-significant loading impact. The project sponsor has agreed to implement Project Improvement Measure I-TR-5, Coordination of Move-in/Move-Out Operations, Large Deliveries, and Garbage Pick-Up Operations, which requires the project sponsor to enforce restrictions on garbage pick-up activities, and to assure that such activities do not coincide with weekday peak commute periods or during periods of student drop-off/pick-up activities at Marshall Elementary School (see Mitigation and Improvement Measures section below [starting on page 63]). This measure would further reduce less-than-significant loading-related impacts.

Construction

During the anticipated 21-month construction period, temporary and intermittent transportation impacts would result from construction-related truck movements to and from the project site during demolition and construction activities associated with the proposed development. In addition, parking lanes along 16th, Mission, and Capp streets would be restricted, and several sidewalk sections may be closed; however, no Muni bus stops would be relocated, no vehicle travel lanes would be closed, and vehicular access would be maintained at all times. Lane and sidewalk closures are subject to review by the Transportation Advisory Staff Committee, an interdepartmental committee that includes the Police, Public Works, Planning, and Fire Departments, and SFMTA Muni Operations.

Construction-related transportation impacts would be temporary, and limited in duration. Therefore, the proposed project would result in less-than-significant construction-related transportation impacts. The project sponsor has agreed to implement Project Improvement Measure I-TR-6, Construction Truck

Deliveries During Off-Peak Periods, and Project Improvement Measure I-TR-7, Construction Management Plan, listed in the Mitigation and Improvement Measures section below (starting on page 63). These measures would further minimize disruption of the traffic flow on adjacent streets during the peak commute periods; require coordination with SFMTA, the Fire Department, Muni, and the Planning Department to determine feasible measures to reduce traffic congestion; minimize construction impacts on nearby businesses; and minimize traffic and parking demand associated with construction workers, thereby further reducing the less-than-significant construction-related impacts.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
5. NOISE—Would the project:				
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Be substantially affected by existing noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR identified potential conflicts related to residences and other noise-sensitive uses in proximity to noisy uses such as PDR, retail, entertainment, cultural/institutional/educational uses, and office uses. In addition, the Eastern Neighborhoods PEIR noted that implementation of the Eastern Neighborhoods Area Plans and Rezoning would incrementally increase traffic-generated noise on some streets in the Eastern Neighborhoods plan areas, and result in construction noise impacts from pile-driving and other construction activities. The Eastern Neighborhoods PEIR therefore identified six noise mitigation measures that would reduce noise impacts to less-than-significant levels.

The noise study prepared for the proposed project identifies potential noise impacts that may be generated by the proposed project, and identifies design elements and attenuation measures to comply with the six noise mitigation measures listed in the Eastern Neighborhoods PEIR.²⁹ Eastern Neighborhoods PEIR

²⁹ SMW (Shen Milsom Wilke), 2014. Environmental Noise Report for 1979 Mission Street Mixed Use Development San Francisco, California. December 22. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

Mitigation Measures F-1 and F-2 relate to construction noise. Mitigation Measure F-1, Construction Noise, addresses individual projects that include pile driving, and Mitigation Measure F-2, Construction Noise, addresses individual projects that include particularly noisy construction procedures (including pile driving). PEIR Mitigation Measure F-1 does not apply to the proposed project, because the proposed project would not involve pile-driving.^{30,31} However, the project would involve other noisy construction activities—specifically, use of backhoe, jackhammers, loader, excavator, chipping hammer, and roller during the demolition/excavation phases; and use of chipping hammers, concrete trucks, and concrete pumps during the shoring/foundation/exterior framing/superstructure phases. As described in the construction noise assessment prepared for the proposed project, construction noise may exceed the San Francisco Noise Ordinance by emitting noise at a level in excess of 80 A-weighted decibels (dBA) when measured at a distance of 100 feet from such equipment. Therefore, Eastern Neighborhoods PEIR Mitigation Measure F-2 applies to the project, and—together with additional noise attenuation measures described in the noise study—has been identified in the Mitigation and Improvement Measures section below (starting on page 63) as Project Mitigation Measure NO-1. In accordance with the Eastern Neighborhoods PEIR requirements, the project sponsor has agreed to implement Project Mitigation Measure M-NO-1. Compliance with this mitigation measure would result in less-than-significant construction noise impacts. As described in the noise study, this measure includes monitoring the effectiveness of noise attenuation measures by taking noise measurements during construction of the project to ensure that construction noise does not exceed the requirements of the Noise Ordinance.

In addition, all construction activities for the proposed project (approximately 21 months) would be subject to and would comply with the San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code [Noise Ordinance]). Construction noise is regulated by the Noise Ordinance. The Noise Ordinance requires that construction work be conducted in the following manner: (1) noise levels of construction equipment, other than impact tools, must not exceed 80 dBA at a distance of 100 feet from the source (the equipment generating the noise); (2) impact tools must have intake and exhaust mufflers that are approved by the Director of Public Works or the Director of the DBI to best accomplish maximum noise reduction; and (3) if the noise from the construction work would exceed the ambient noise levels at the site property line by 5 dBA, the work must not be conducted between 8:00 p.m. and 7:00 a.m., unless the Director of Public Works authorizes a special permit for conducting the work during that period.

DBI is responsible for enforcing the Noise Ordinance for private construction projects during normal business hours (8:00 a.m. to 5:00 p.m.). The Police Department is responsible for enforcing the Noise Ordinance during all other hours. Nonetheless, during the construction period for the proposed project of approximately 21 months, occupants of the nearby properties could be disturbed by construction noise. There may be times when project construction noise could interfere with indoor activities in nearby sensitive receptors such as residences and the adjacent school near the project site, and may be considered an annoyance by occupants of nearby properties. In addition, limited evening work (4:00 p.m. to 8:00 p.m.) and work on weekends (8:00 a.m. to 4:00 p.m.) would be required for Phases 3, 4, and 5. The increase in noise in the project area during project construction would not be considered a significant impact of the proposed project, because the construction noise would be temporary, intermittent, and restricted in occurrence and level, due to the contractor being required to comply with the Noise Ordinance and all applicable PEIR mitigation measures—including Mitigation Measure F-2—by incorporating all feasible noise attenuation measures as determined by DBI.

³⁰ Treadwell & Rollo, 2013. Geotechnical Investigation, 1979 Mission Street. Prepared for Maximus Real Estate Partners. January 30. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

³¹ Maximus – BP 1979 Mission LLC, 2014. Environmental Evaluation Application for 1979 Mission Street Project, Attachment to Application for Block 3553, Lot 052. January 14. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

Eastern Neighborhoods PEIR Mitigation Measure F-3, Interior Noise Levels, and Mitigation Measure F-4, Siting of Noise-Sensitive Uses, require that a detailed analysis of noise reduction requirements be conducted for new development that includes noise-sensitive uses along streets with noise levels above 60 dBA (day-night average noise level [L_{dn}]). The proposed new residential uses are considered noise-sensitive uses. As described in the noise study, the project site is in an area subject to noise levels between 54 and 82 dBA.³² Primary noise sources include vehicle traffic, Muni buses, BART pedestrian traffic, the Marshall Elementary School playground, and activities associated with nearby local retailers, restaurants, and entertainment venues. PEIR Mitigation Measure F-3 would apply to the project. This is identified as Project Mitigation Measure M-NO-2 in the Mitigation and Improvement Measures section below (starting on page 63). In accordance with the Eastern Neighborhoods PEIR requirements, the project sponsor has agreed to implement Project Mitigation Measure M-NO-2.

In addition, PEIR Mitigation Measure F-4, which addresses potential conflicts between new sensitive receptors and existing noise-generating uses, requires the preparation of an analysis that includes, at minimum, a site survey to identify potential noise-generating uses that are within 900 feet of and have a direct line of sight to the project site, and at least one 24-hour noise measurement (with maximum noise levels taken every 15 minutes) to demonstrate that acceptable interior noise levels consistent with Title 24 can be attained. The noise study prepared for the proposed project, and in compliance with these requirements, demonstrated that the proposed project can feasibly attain acceptable interior noise levels consistent with Title 24. Mitigation Measure F-4 is identified as Project Mitigation Measure M-NO-3 in the Mitigation and Improvement Measures section below (starting on page 63). In accordance with the Eastern Neighborhoods PEIR requirements, the project sponsor has agreed to implement Project Mitigation Measure M-NO-3. As described in the noise study, finalized design recommendations for achieving interior noise level requirements will be provided during subsequent stages in the design process.

Eastern Neighborhoods PEIR Mitigation Measure F-5, Siting of Noise-Generating Uses, addresses impacts related to individual projects that include new noise-generating uses that would be expected to generate noise levels in excess of ambient noise in the project site vicinity. The San Francisco Noise Ordinance limits the noise increases due to installation of fixed sources, such as mechanical equipment, to a maximum of 5 dBA above ambient levels in this area of the City. Noise-generating uses associated with the proposed project would include the back-up emergency generator and other mechanical equipment; and deliveries for the commercial uses, and other activities in the parking garage. As described in the noise study, project operations would not be anticipated to generate noise levels in excess of ambient noise, either short-term, at nighttime, or as a 24-hour average, in the proposed project site vicinity.³³ Mitigation Measure F-5 is identified as Project Mitigation Measure M-NO-4 in the Mitigation and Improvement Measures section below (starting on page 63). In accordance with the Eastern Neighborhoods PEIR requirements, the project sponsor has agreed to implement Project Mitigation Measure M-NO-4.

Mitigation Measure F-6, Open Space in Noisy Environments, addresses impacts from existing ambient noise levels on open space required under the Planning Code for new development that includes noise-sensitive uses. The proposed project would include approximately 28,741 square feet of common open space for the occupants, provided on the Level 2 interior courtyard and in three roof decks. In addition, private balconies, terraces, and patios would be provided for 29 of the residential units. As described above, the project site is in an area where traffic-related noise levels generally exceed 60 dBA (L_{dn}), which is the normally acceptable threshold for new residential development. The roof decks would generally be

³² SMW (Shen Milsom Wilke), 2014. Environmental Noise Report for 1979 Mission Street Mixed Use Development San Francisco, California. December 22. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

³³ Ibid.

approximately 55 to 105 feet from the primary noise sources, and shielded by the proposed building in such a way that the decks would be protected from noise to the maximum feasible extent, thereby reducing the impact of traffic noise levels on the project's open space areas. Mitigation Measure F-6 is identified as Project Mitigation Measure M-NO-5 in the Mitigation and Improvement Measures section below (starting on page 63). In accordance with the Eastern Neighborhoods PEIR requirements, the project sponsor has agreed to implement Project Mitigation Measure M-NO-5.

The project site is not in an airport land use plan area, within 2 miles of a public airport, or in the vicinity of a private airstrip. Therefore, topics 12e and f from the CEQA Guidelines, Appendix G, listed above as CPE Checklist 5e and f, are not applicable to the proposed project.

For the above reasons, the proposed project would not result in significant noise impacts that were not identified in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
6. AIR QUALITY—Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR identified potentially significant air quality impacts resulting from construction activities and impacts to sensitive land uses³⁴ as a result of exposure to elevated levels of diesel particulate matter (DPM) and other toxic air contaminants (TACs). The Eastern Neighborhoods PEIR identified four mitigation measures that would reduce these air quality impacts to less-than-significant levels. All other air quality impacts were found to be less than significant.

Construction Dust Control

Eastern Neighborhoods PEIR Mitigation Measure G-1, Construction Air Quality, requires individual projects involving construction activities to include dust control measures, and to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants. The

³⁴ The Bay Area Air Quality Management District (BAAQMD) defines sensitive receptors as: children, adults, or seniors occupying or residing in 1) residential dwellings, including apartments, houses, condominiums; 2) schools, colleges, and universities; 3) daycares; 4) hospitals; and 5) senior care facilities. BAAQMD, Recommended Methods for Screening and Modeling Local Risks and Hazards, May 2011, page 12. Available online at: http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx.

San Francisco Board of Supervisors subsequently approved a series of amendments to the San Francisco Building and Health Codes, generally referred to as the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008). The intent of the Construction Dust Control Ordinance is to reduce the quantity of fugitive dust generated during site preparation, demolition, and construction work to protect the health of the general public and of onsite workers, minimize public nuisance complaints, and avoid orders to stop work by DBI. Project-related construction activities would result in construction dust, primarily from ground-disturbing activities.

In compliance with the Construction Dust Control Ordinance, the project sponsor and the contractor responsible for construction activities at the project site would be required to use the following practices to control construction dust on the site, or other practices that result in equivalent dust control that are acceptable to the Director of Public Health. Dust suppression activities may include watering 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, Section 1100 et seq. of the San Francisco Public Works Code. If not required, reclaimed water should be used whenever possible. Contractors shall provide as much water as necessary to control dust (without creating run-off in any area of land clearing, and/or earth movement). During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than 7 days), greater than 10 cubic yards or 500 square feet of excavated material, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10-millimeter (0.01-inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques.

For projects located on sites over one half-acre in area, such as the proposed project, the Dust Control Ordinance requires that the project sponsor submit a Dust Control Plan for approval by the DPH. 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 would require 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 hauling 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. The Dust Control Plan would consider proximity of the project site to the adjacent school.

The regulations and procedures set forth by the San Francisco Dust Control Ordinance to submit a Dust Control Plan for review and approval prior to construction would ensure that project construction dust impacts would not be significant. These requirements supersede the dust control provisions of PEIR

Mitigation Measure G-1. Therefore, the portion of PEIR Mitigation Measure G-1, Construction Air Quality, that addresses dust control is not applicable to the proposed project.

Health Risk

Eastern Neighborhoods PEIR Mitigation Measure G-1 addresses air quality impacts during construction, PEIR Mitigation Measure G-2, Air Quality for Sensitive Land Uses, addresses the siting of sensitive land uses near sources of TACs, and PEIR Mitigation Measure G-3, Siting of Uses that Emit DPM, and Mitigation Measure G-4, Siting of Uses that Emit Other TACs, address proposed uses that would emit DPM and other TACs.

Subsequent to certification of the PEIR, San Francisco (in partnership with the BAAQMD) inventoried and assessed air pollution and exposures from mobile, stationary, and area sources in San Francisco, and identified portions of the City in which there are additional health risks for affected populations due to increased exposure to air pollutants ("Air Pollutant Exposure Zone"). The Air Pollutant Exposure Zone was identified based on two health based criteria:

1. Areas where the excess cancer risk from all sources is greater than 100; or
2. Areas where concentrations of particulate matter less than or equal to 2.5 microns in diameter, from all sources (including ambient concentrations), are greater than 10 micrograms per cubic meter.

The project site is not located within an identified Air Pollutant Exposure Zone. Therefore, the ambient health risk to sensitive receptors from air pollutants is not considered substantial, and the remainder of Mitigation Measure G-1 that requires the minimization of construction exhaust emissions is not applicable to the proposed project. However, Project Improvement Measure I-AQ-1 in the Mitigation and Improvement Measures section below (starting on page 63) would minimize construction emissions and further lessen the less-than-significant air quality impact of the proposed project. The project sponsor has agreed to implement this measure.

The proposed project would include development of residential uses that are considered a sensitive land use for purposes of air quality evaluation. As discussed above, the project site is not located within an identified Air Pollutant Exposure Zone. Therefore, the ambient health risk to sensitive receptors from air pollutants is not considered substantial at this location, and Eastern Neighborhoods PEIR Mitigation Measure G-2, Air Quality for Sensitive Land Uses, is not applicable to the proposed project.

The proposed project would include a 350-kilowatt backup generator, which may expose sensitive receptors, including adjacent residential dwellings and schools within the project vicinity, to TAC emissions and potential associated health impacts. However, backup generators are regulated by the BAAQMD through their New Source Review (Regulation 2, Rule 5) permitting process. The project applicant would be required to obtain applicable permits to operate the emergency backup generator from the BAAQMD. As part of the permitting process, the BAAQMD would limit the excess cancer risk from any facility to no more than ten per one million population, and would require any source that would result in an excess cancer risk greater than one per one million population to install Best Available Control Technology for Toxics. Compliance with the BAAQMD permitting process would ensure that project-generated TAC emissions would not expose sensitive receptors to substantial air pollutant concentrations, and that impacts related to TAC emissions would be less than significant. Therefore, the project would not emit substantial levels of DPM or other TACs, and Eastern Neighborhoods PEIR Mitigation Measure G-3, Siting of Uses that Emit DPM, and Mitigation Measure G-4, Siting of Uses that Emit Other TACs, are not applicable.

Criteria Air Pollutants

Although the Eastern Neighborhoods PEIR determined that at a program-level the Eastern Neighborhoods Rezoning and Area Plans would not result in significant regional air quality impacts, the PEIR states that “Individual development projects undertaken in the future pursuant to the new zoning and area plans would be subject to a significance determination based on the BAAQMD’s quantitative thresholds for individual projects.”³⁵ The BAAQMD’s *CEQA Air Quality Guidelines* (Air Quality Guidelines) provide screening criteria³⁶ for determining whether a project’s criteria air pollutant emissions would violate an air quality standard, contribute to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. Pursuant to the Air Quality Guidelines, projects that meet the screening criteria do not have a significant impact related to criteria air pollutants. For projects that do not meet the screening criteria, a detailed air quality assessment is required to further evaluate whether project-related criteria air pollutant emissions would exceed BAAQMD significance thresholds.

The project meets the BAAQMD screening level for operational criteria air pollutant emissions, but does not meet the screening level for construction criteria air pollutant emissions. Therefore, a detailed air quality assessment was performed to estimate the construction criteria pollutant emissions.³⁷ As shown in Table 4, the assessment indicated that the construction emissions would not exceed BAAQMD construction criteria pollutant significance thresholds. Therefore, the project would not have a significant impact related to criteria air pollutants, and a detailed air quality assessment is not required.

Table 4
Anticipated Project Construction Emissions

	ROG	NO_x	Exhaust PM₁₀	Exhaust PM_{2.5}
Total Emissions (tons)	3.48	5.29	0.24	0.23
Average Daily Emissions (lbs/day)	15.1	22.9	1.1	1.0
BAAQMD Significance Threshold (lbs/day)	54	54	82	54
Exceeds BAAQMD thresholds?	No	No	No	No
Source: URS Corporation, 2014. Notes: lbs/day = pounds per day NO _x = oxides of nitrogen PM ₁₀ = particulate matter less than or equal to 10 microns in diameter PM _{2.5} = particulate matter less than or equal to 2.5 microns in diameter ROG = reactive organic gases				

³⁵ San Francisco Planning Department, 2008. Eastern Neighborhoods Rezoning and Area Plans Final Environmental Impact Report. See page 346. Available online at: <http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=4003>, accessed June 4, 2014, and at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2004.0160E.

³⁶ Bay Area Air Quality Management District, CEQA Air Quality Guidelines, updated May 2011. See pp. 3-2 through 3-3. Available online at: http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx.

³⁷ URS Corporation, 2014. Technical Memorandum Regarding 1979 Mission Street CalEEMod Construction Emissions. August 2014. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

For the above reasons, none of the Eastern Neighborhoods PEIR air quality mitigation measures are applicable to the proposed project, and the project would not result in significant air quality impacts that were not identified in the PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
7. 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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR assessed the greenhouse gas (GHG) emissions that could result from rezoning of the Mission Area Plan under the three rezoning options. The Eastern Neighborhoods Rezoning Options A, B, and C are anticipated to result in GHG emissions on the order of 4.2, 4.3, and 4.5 metric tons of CO₂e³⁸ per service population,³⁹ respectively. The Eastern Neighborhoods PEIR concluded that the resulting GHG emissions from the three options analyzed in the Eastern Neighborhoods Area Plans would be less than significant. No mitigation measures were identified in the PEIR.

Regulations outlined in San Francisco's Strategies to Address Greenhouse Gas Emissions have proven effective, because San Francisco's GHG emissions have measurably reduced when compared to 1990 emissions levels, demonstrating that the City has met and exceeded Executive Order S-3-05, Assembly Bill (AB) 32, and the Bay Area 2010 Clean Air Plan GHG reduction goals for the year 2020. The proposed project was determined to be consistent with San Francisco's GHG Reduction Strategy.⁴⁰ Other existing regulations, such as those implemented through AB 32, will continue to reduce a proposed project's contribution to climate change. Therefore, the proposed project's GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations; and the proposed project's contribution to GHG emissions would not be cumulatively considerable or generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment.

Because the proposed project is within the development projected under the Eastern Neighborhoods Rezoning and Area Plans, there would be no additional impacts on GHG emissions beyond those analyzed in the Eastern Neighborhoods PEIR.

³⁸ CO₂e, defined as equivalent carbon dioxide, is a quantity that describes other greenhouse gases in terms of the amount of carbon dioxide that would have an equal global warming potential.

³⁹ Memorandum from Jessica Range to Environmental Planning staff, Greenhouse Gas Analyses for Community Plan Exemptions in Eastern Neighborhoods, April 20, 2010. This memorandum provides an overview of the GHG analysis conducted for the Eastern Neighborhoods PEIR, and provides an analysis of the emissions using a service population (equivalent of total number of residents and employees) metric.

⁴⁰ San Francisco Planning Department, 2014. Compliance Checklist Greenhouse Gas Analysis and Cover Memorandum. November 17, 2014. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
8. WIND AND SHADOW—Would the project:				
a) Alter wind in a manner that substantially affects public areas?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Wind

The proposed project has the potential to result in a significant wind impact. Accordingly, this topic will be further analyzed and included in the EIR prepared for this project.

Shadow

The proposed project has the potential to result in a significant shadow impact. Accordingly, this topic will be further analyzed and included in the EIR prepared for this project.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
9. 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Physically degrade existing recreational resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR concluded that implementation of the Eastern Neighborhoods Rezoning and Area Plans would not result in substantial or accelerated deterioration of existing recreational resources or require the construction or expansion of recreational facilities that may result in an adverse effect on the environment. No mitigation measures related to recreational resources were identified in the Eastern Neighborhoods PEIR.

Because the proposed project would not degrade recreational facilities and is within the development projected under the Eastern Neighborhoods Rezoning and Area Plans, there would be no additional impacts on recreation beyond those analyzed in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
10. UTILITIES AND SERVICE SYSTEMS—Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would 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 type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR determined that the anticipated increase in population resulting from Plan implementation would not result in a significant impact to the provision of water, wastewater collection and treatment, and solid waste collection and disposal. No mitigation measures were identified in the PEIR.

Because the proposed project is within the development projected under the Eastern Neighborhoods Rezoning and Area Plans, there would be no additional impacts on utilities and service systems beyond those analyzed in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
11. PUBLIC SERVICES—Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order 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 services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR determined that the anticipated increase in population resulting from Plan implementation would not result in a significant impact to public services, including fire protection, police protection, and public schools. No mitigation measures were identified in the PEIR.

Because the proposed project is within the development projected under the Eastern Neighborhoods Rezoning and Area Plans, there would be no additional impacts on public services beyond those analyzed in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
12. 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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>

As discussed in the Eastern Neighborhoods PEIR, the Eastern Neighborhoods Plan Area is in a fully developed urban environment that does not provide natural habitat for any rare or endangered plant or animal species. There are no riparian corridors, estuaries, marshes, or wetlands in the Plan Area that could be affected by the development anticipated under the Area Plan. In addition, development envisioned under the Eastern Neighborhoods Area Plan would not substantially interfere with the movement of any resident or migratory wildlife species. For these reasons, the PEIR concluded that implementation of the Area Plan would not result in significant impacts on biological resources, and no mitigation measures were identified.

Because the proposed project is within the development projected under the Eastern Neighborhoods Rezoning and Area Plans and no habitat currently exists on the project site, there would be no additional impacts on biological resources beyond those analyzed in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
13. GEOLOGY AND SOILS—Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input checked="" 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input checked="" 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, creating substantial risks to life or property?	<input checked="" 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 wastewater?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Change substantially the topography or any unique geologic or physical features of the site?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project has the potential to result in a significant geology and soils impact. Accordingly, this topic will be further analyzed and included in the EIR prepared for this project.

Topics:	Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in PEIR
14. HYDROLOGY AND WATER QUALITY—Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR determined that the anticipated increase in population resulting from implementation of the Plan would not result in a significant impact on hydrology and water quality, including the combined sewer system and the potential for combined sewer outflows. No mitigation measures were identified in the PEIR.

The project site is occupied by two existing buildings and a surface parking lot, and is completely covered by impervious surfaces. A geotechnical investigation was prepared for the proposed project.⁴¹ Test borings from the Walgreens parking lot indicate that the site is underlain by 2 to 4 feet of sandy fill that contains debris, including bricks and wood. Below the fill to a depth of about 33 feet below the ground surface are

⁴¹ Treadwell & Rollo, 2013. Geotechnical Investigation, 1979 Mission Street. Prepared for Maximus Real Estate Partners. January 30. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

interbedded layers of alluvial deposits, consisting of loose to dense sand, stiff silt, and medium-stiff to stiff clay. Below a depth of about 33 feet, very dense sand is present. Expected groundwater depth at the project site would range from approximately 8 to 10 feet below the ground surface, depending on the time of year. Therefore, dewatering during construction and operations would be required.

Two historic creeks, Arroyo Dolores and Old Arroyo Dolores, were once present approximately one block south and two and a half blocks north of the project site; however, neither of these creeks extended within the immediate vicinity of the site.⁴²

The proposed project would slightly decrease the amount of impervious surface by providing landscaping and rainwater retention and filtration facilities in an interior courtyard, as well as on the building roofs. The project's streetscape improvements would also contain specific design elements (i.e., "stormwater infiltration planters") along Capp Street for the purpose of retaining and filtering runoff as required by the Stormwater Management Ordinance. Overall, runoff and drainage would not be substantially changed from existing conditions following construction of the proposed project. As a result, the proposed project would not increase stormwater runoff.

Therefore, the proposed project would not result in any significant impacts related to hydrology and water quality that were not identified in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
15. HAZARDS AND HAZARDOUS MATERIALS— Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

⁴² Ramirez-Herrera, M.T., J.M. Sowers, and C.M. Richard, 2006. *Creek & Watershed Map of San Francisco*: Oakland Museum of California, Oakland, CA, 1:25,800 scale. Available online at: <http://www.museumca.org/creeks/1640-RescMission.html>. Accessed November 12, 2014.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR noted that implementation of any of the proposed project's rezoning options would encourage construction of new development in the project area. The PEIR found that there is a high potential to encounter hazardous materials during construction activities in many parts of the project area because of the presence of 1906 earthquake fill, previous and current land uses associated with the use of hazardous materials, and known or suspected hazardous materials cleanup cases. However, the PEIR found that existing regulations for facility closure, Underground Storage Tank closure, and investigation and cleanup of soil and groundwater would ensure implementation of measures to protect workers and the community from exposure to hazardous materials during construction.

Hazardous Building Materials

The Eastern Neighborhoods PEIR determined that future development in the Plan Area may involve demolition or renovation of existing structures containing hazardous building materials. Some building materials commonly used in older buildings could present a public health risk if disturbed during an accident or during demolition or renovation of an existing building. Hazardous building materials addressed in the PEIR include asbestos, electrical equipment such as transformers and fluorescent light ballasts that contain polychlorinated biphenyls (PCBs) or di (2 ethylhexyl) phthalate (DEHP), fluorescent lights containing mercury vapors, and lead-based paints. Asbestos and lead-based paint may also present a health risk to existing building occupants if they are in a deteriorated condition. If removed during demolition of a building, these materials would also require special disposal procedures. The Eastern Neighborhoods PEIR identified a significant impact associated with hazardous building materials including PCBs, DEHP, and mercury, and determined that that PEIR Mitigation Measure L-1, Hazardous Building Materials, as outlined below, would reduce effects to a less-than-significant level. Because the proposed development includes demolition of two existing buildings, PEIR Mitigation Measure L-1 would apply to the proposed project, and has been identified as Project Mitigation Measure M-HZ-1. In accordance with the Eastern Neighborhoods PEIR requirements, the project sponsor has agreed to implement Project Mitigation Measure M-HZ-1, Hazardous Building Materials, listed in the Mitigation and Improvement Measures section below (starting on page 63).

Soil and Groundwater Contamination

The proposed project would entail excavation of the site up to approximately 22 feet below grade. Because the project site is in the Expanded Maher Area, the project is subject to Article 22A of the Health Code, also known as the Maher Ordinance, which is administered and overseen by the DPH.⁴³ The Maher Ordinance requires the project sponsor to retain the services of a qualified professional to prepare a Phase I Environmental Site Assessment (ESA) that meets the requirements of Health Code Section 22.A.6.

⁴³ San Francisco Planning Department, 2014. Expanded Maher Area Map. September. Available online at: <http://www.sf-planning.org/index.aspx?page=2426>.

A Phase I ESA was prepared for the project site; it described the historic uses on the site, the potential for site contamination, and the level of exposure risk associated with the project.⁴⁴ The project site was developed in 1889 with commercial uses, including factories for candy, gloves, and carriages; from approximately the 1940s to the 1960s, a dry cleaner was located on the site. There is approximately 10 feet of artificial fill at the project site.

The project sponsor is required to submit a complete Maher Site Mitigation Plan (SMP) to the DPH or other appropriate state or federal agency(ies), and to remediate any site contamination in accordance with an approved SMP prior to the issuance of any building permit. The SMP would include a description of and design drawings for measures; address procedures to mitigate or remove contaminated soils, soil vapor, and groundwater as needed; environmental contingency procedures; post-excavation confirmation sampling; and a certified final project report. The SMP would also include or reference construction-related documents such as an environmental health and safety plan, dust, stormwater, odor, and noise controls.

In compliance with the Maher Ordinance, the project sponsor has submitted a Maher Application to DPH; a Phase I ESA has been prepared to assess the potential for site contamination; subsurface and soil investigations have been performed; and a Soil Mitigation Plan has been submitted to DPH. A work plan addendum for soil and soil vapor sampling is required to be submitted to DPH; a complete Maher SMP (described above) is required to be submitted at least a month prior to beginning construction activities; and a Health and Safety Plan and Dust Control Plan is required to be submitted at least 2 weeks prior to beginning construction activities.

The proposed project would be required to remediate the potential soil and groundwater contamination described above, in accordance with Article 22A of the Health Code. In addition, the proposed project would require dewatering, and would be required to apply for a Batch Wastewater Discharge Permit in compliance with all applicable regulations. Therefore, due to the above-cited regulatory requirements, the proposed project would not result in any significant impacts related to hazardous materials that were not identified in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
16. MINERAL AND ENERGY 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 checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR determined that the Area Plan would facilitate the construction of both new residential units and commercial buildings. Development of these uses would not result in use of

⁴⁴ Professional Service Industries, Inc., 2013. Report of Phase I Environmental Site Assessment Commercial Property 1979 & 1985 Mission Street and 2950, 2960, 2970, & 2978 16th Street, San Francisco, California 94103. January 11. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File No. 2013.1543E.

large amounts of fuel, water, or energy in a wasteful manner or in the context of energy use throughout the City and region. The energy demand for individual buildings would be typical for such projects, and would meet, or exceed, current state and local codes and standards concerning energy consumption, including Title 24 of the California Code of Regulations enforced by DBI. The Plan Area does not include any natural resources routinely extracted, and the rezoning does not include any natural resource extraction programs. Therefore, the Eastern Neighborhoods PEIR concluded that implementation of the Area Plan would not result in a significant impact on mineral and energy resources. No mitigation measures were identified in the PEIR.

Because the proposed project is within the development projected under the Eastern Neighborhoods Rezoning and Area Plans, there would be no additional impacts on mineral and energy resources beyond those analyzed in the Eastern Neighborhoods PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
17. AGRICULTURE AND FOREST RESOURCES:—Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, 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"/>
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"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined by Public Resources Code Section 4526)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Eastern Neighborhoods PEIR determined that no agricultural resources exist in the Plan Area; therefore, the rezoning and community plans would have no effect on agricultural resources. No mitigation measures were identified in the PEIR. The Eastern Neighborhoods PEIR did not analyze the effects on forest resources, because none exist in the Plan Area.

Because the proposed project is within the development projected under the Eastern Neighborhoods Rezoning and Area Plans, there would be no additional impacts on agriculture and forest resources beyond those analyzed in the Eastern Neighborhoods PEIR.

Mitigation and Improvement Measures

Mitigation Measures

Project Mitigation Measure M-CP-1: Archaeological Testing

Based on a reasonable presumption that archaeological resources may be present in 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. The project sponsor shall retain the services of an archaeological consultant from the rotational Department Qualified Archaeological Consultants List (QACL) maintained by the Planning Department archaeologist. The project sponsor shall contact the Department archaeologist to obtain the names and contact information for the next three archaeological consultants on the QACL. 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, and with the requirements of the project ARDTP,⁴⁵ at the direction of the Environmental Review Officer (ERO). In instances of inconsistency between the requirement of the project ARDTP and of this archaeological mitigation measure, the requirements of this archaeological mitigation measure shall prevail. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of 4 weeks. At the direction of the ERO, the suspension of construction can be extended beyond 4 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 CEQA Guidelines Section 15064.5 (a)(c).

Consultation with Descendant Communities: On discovery of an archaeological site⁴⁶ associated with descendant Native Americans, the Overseas Chinese, or other descendant group, an appropriate representative⁴⁷ of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archaeological field investigations of the site, and to consult with ERO 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 (FARR) shall be provided to the representative of the descendant group.

Archaeological Testing Program. The archaeological consultant shall prepare and submit to the ERO for review and approval an archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the

⁴⁵ Shew, Dana, Mary Praetzellis, and Adrian Praetzellis, 2014. *1979 Mission Street San Francisco Archaeological Research Design and Treatment Plan*. November.

⁴⁶ The term "archaeological site" is intended here to minimally include any archaeological deposit, feature, burial, or evidence of burial.

⁴⁷ 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 Department archaeologist.

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 to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant shall determine whether 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 ERO or the Planning Department archaeologist. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, then at the discretion of the project sponsor either:

- a. The proposed project shall be re-designed so as to avoid any adverse effect on the significant archaeological resource; or
- b. A data recovery program shall be implemented, unless the ERO 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 ERO, 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 ERO shall meet and consult on the scope of the Archaeological Monitoring Plan reasonably prior to the commencement of any project-related soils-disturbing activities. The ERO, in consultation with the archaeological consultant, shall determine what project activities shall be archaeologically monitored. In most cases, any soils-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 advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of 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 ERO until the ERO 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 soils-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. If, in the case of pile-driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile-driving activity may affect an archaeological resource, the pile-driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO 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 ERO.

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 ERO.

Archaeological Data Recovery Program. The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archaeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should 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 ADRP shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description 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.* Description of proposed report format and distribution of results.
- *Curation.* Description 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 and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils-disturbing activity shall comply

with applicable state and federal laws. This shall include 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 State Native American Heritage Commission, who shall appoint a Most Likely Descendant (MLD) (Public Resources Code Section 5097.98). The archaeological consultant, project sponsor, ERO, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines, Section 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archaeological Resources Report. The archaeological consultant shall submit to the ERO a Draft FARR 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. Information that may put at risk any archaeological resource shall be provided in a separate removable insert in the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey NWIC shall receive one copy, and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound, one unbound, and one unlocked, searchable PDF copy on CD of the FARR, 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/CRHR. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

Project Mitigation Measure M-NO-1: Construction Noise (Mitigation Measure F-2 of the Eastern Neighborhoods PEIR)

Where environmental review of a development project undertaken subsequent to the adoption of the proposed zoning controls determines that construction noise controls are necessary due to the nature of planned construction practices and the sensitivity of proximate uses, the Planning Director shall require that the sponsors of the subsequent development project develop a set of site-specific noise attenuation measures under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted to the DBI to ensure that maximum feasible noise attenuation will be achieved. These attenuation measures shall include as many of the following control strategies as feasible:

- Erect temporary plywood noise barriers around a construction site, particularly where a site adjoins noise-sensitive uses;
- Use noise control blankets on a building structure as the building is erected to reduce noise emission from the site;
- Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings that house sensitive uses;

- Monitor the effectiveness of noise attenuation measures by taking noise measurements; and
- Post signs on site pertaining to permitted construction days and hours, complaint procedures, and who to notify in the event of a problem, with telephone numbers listed.

In addition, the following recommendations from the noise study prepared for the proposed project shall be implemented, as feasible:

- Construct walled enclosures around all stationary equipment, such as the diesel compressor, the generator, and the concrete pumps.
- Turn off dump trucks, concrete trucks, and delivery trucks in holding areas as much as possible.
- Consider using jackhammers and chipping hammers fitted with mufflers, or use a jacket around the equipment assembled of several layers of a mass vinyl barrier, such as the Kinetics KNM-100, secured with Velcro straps.
- Schedule superstructure and interior work to occur after the exterior façade has been erected as much as possible, especially the northern and western facades. The idea would be to use the exterior façade of the 1979 Mission Street buildings as a barrier to block noise to the neighboring receivers as much as possible.
- Use all “quiet” options and mufflers on all engines as provided by the equipment manufacturer as much as possible.
- Limit the use of tonal noise generators as much as possible. Tonal noise generators would include elements such as crane warning horns, manlift alarms, or backup signals.
- Notify the occupants of nearby residential buildings about construction schedules.
- Specify maximum noise emission sound pressure levels of the construction equipment. Have the contractor submit test data (manufacturer-provided or field-tested) for the pieces of equipment planned for use in the project.

Project Mitigation Measure M-NO-2: Interior Noise Levels (Mitigation Measure F-3 of the Eastern Neighborhoods PEIR)

For new development including noise-sensitive uses located along streets with noise levels above 60 dBA (Ldn), as shown in PEIR Figure 18, where such development is not already subject to the California Noise Insulation Standards in Title 24 of the California Code of Regulations, the project sponsor shall conduct a detailed analysis of noise reduction requirements. Such analysis shall be conducted by person(s) qualified in acoustical analysis and/or engineering. Noise insulation features identified and recommended by the analysis shall be included in the design, as specified in the San Francisco General Plan Land Use Compatibility Guidelines for Community Noise to reduce potential interior noise levels to the maximum extent feasible.

Project Mitigation Measure M-NO-3: Siting of Noise-Sensitive Uses (Mitigation Measure F-4 of the Eastern Neighborhoods PEIR)

To reduce potential conflicts between existing noise-generating uses and new sensitive receptors, for new development including noise-sensitive uses, the Planning Department shall require the preparation of an analysis that includes, at a minimum, a site survey to identify potential noise-generating uses within 900 feet of, and that have a direct line-of-sight to, the project site;; and including at least one 24-hour noise measurement (with maximum noise level readings taken at least every 15 minutes), 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 Title 24 standards, where applicable, can be met, and that there are no particular circumstances about the proposed project site that appear to warrant heightened concern about noise levels in the vicinity. Should such concerns be present, the Department may require the completion of a detailed noise assessment by person(s) qualified in acoustical analysis and/or engineering prior to the first project approval action, in order to demonstrate that acceptable interior noise levels consistent with those in the Title 24 standards can be attained.

Project Mitigation Measure M-NO-4: Siting of Noise-Generating Uses (Mitigation Measure F-5 of the Eastern Neighborhoods PEIR)

To reduce potential conflicts between existing sensitive receptors and new noise-generating uses, for new development including commercial, industrial, or other uses that would be expected to generate noise levels in excess of ambient noise, either short-term, at nighttime, or as a 24-hour average, in the proposed project site vicinity, the Planning Department shall require the preparation of an analysis that includes, at a minimum, a site survey to identify potential noise-sensitive uses within 900 feet of, and that have a direct line-of-sight to, the project site; and including at least one 24-hour noise measurement (with maximum noise level readings taken at least every 15 minutes), 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 comply with the use compatibility requirements in the General Plan and in Police Code Section 2909I, would not adversely affect nearby noise-sensitive uses, and that there are no particular circumstances about the proposed project site that appear to warrant heightened concern about noise levels that would be generated by the proposed use. Should such concerns be present, the Department may require the completion of a detailed noise assessment by person(s) qualified in acoustical analysis and/or engineering prior to the first project approval action.

Project Mitigation Measure M-NO-5: Open Space in Noisy Environments (Mitigation Measure F-6 of the Eastern Neighborhoods PEIR)

To minimize effects on development in noisy areas, for new development, including noise-sensitive uses, the Planning Department shall, through its building permit review process, in conjunction with noise analysis required pursuant to Mitigation Measure F-4, require that open space required under the Planning Code for such uses be protected, to the maximum feasible extent, from existing ambient noise levels that could prove annoying or disruptive to users of the open space. Implementation of this measure could involve, among other things, site design that uses the building itself to shield onsite open space from the greatest noise sources; construction of noise barriers between noise sources and open

space; and appropriate use of both common and private open space in multi-family dwellings; implementation would also be undertaken consistent with other principles of urban design.

Project Mitigation Measure M-HZ-1: Hazardous Building Materials (Mitigation Measure L-1 of the Eastern Neighborhoods PEIR)

The City shall condition future development approvals to require that the subsequent project sponsors ensure that any equipment containing PCBs or DEPH, such as fluorescent light ballasts, are removed and properly disposed of according to applicable federal, state, and local laws prior to the start of renovation, and that any fluorescent light tubes, which could contain mercury, are similarly removed and properly disposed of. Any other hazardous materials identified, either before or during work, shall be abated according to applicable federal, state, and local laws.

Improvement Measures

Project Improvement Measure I-TR-1: Monitoring and Abatement of Queues

As an improvement measure to reduce the potential for queuing of vehicles accessing the project site, it shall be the responsibility of the project sponsor/property owner to ensure that recurring vehicle queues do not occur on Capp Street, adjacent to the project site. A vehicle queue is defined as one or more vehicles (destined to the proposed basement parking garage) blocking any portion of the Capp Street sidewalk or travel lane on any adjacent street (16th, Mission, and Capp streets) for a consecutive period of 3 minutes or longer on a daily and/or weekly basis.

Because the proposed project would include a new off-street parking facility with more than 20 parking spaces (excluding loading and car-share spaces), the project is subject to conditions of approval set forth by the Planning Department to address the monitoring and abatement of queues.

It shall be the responsibility of the owner/operator of any off-street parking facility with more than 20 parking spaces (excluding loading and car-share spaces) to ensure that recurring vehicle queues do not occur on the public right-of-way. A vehicle queue is defined as one or more vehicles (destined to the parking facility) blocking any public street, alley, or sidewalk for a consecutive period of 3 minutes or longer on a daily or weekly basis.

If a recurring queue occurs, the owner/operator of the parking facility shall employ abatement methods as needed to abate the queue. Appropriate abatement methods will vary depending on the characteristics and causes of the recurring queue, as well as the characteristics of the parking facility, the street(s) to which the facility connects, and the associated land uses (if applicable).

Suggested abatement methods include but are not limited to the following: redesign of facility to improve vehicle circulation and/or onsite queue capacity; employment of parking attendants; installation of LOT FULL signs with active management by parking attendants; use of valet parking or other space-efficient parking techniques; use of offsite parking facilities or shared parking with nearby uses; use of parking occupancy sensors and signage directing drivers to available spaces; travel demand management strategies such as additional bicycle parking, customer shuttles, delivery services; and/or parking demand management strategies such as parking time limits, paid parking, time-of-day parking surcharge, or validated parking.

If the Planning Director, or his or her designee, suspects that a recurring queue is present, the Department shall notify the property owner in writing. Upon request, the owner/operator shall hire a qualified transportation consultant to evaluate the conditions at the site for no less than 7 days. The consultant shall prepare a monitoring report to be submitted to the Department for review. If the Department determines that a recurring queue does exist, the facility owner/operator shall have 90 days from the date of the written determination to abate the queue.

Improvement Measure I-TR-2: Active Parking Management Controls

As an improvement measure to reduce the potential for queuing of vehicles accessing the project site, it shall be the responsibility of the project sponsor/property owner to enforce active parking management controls at the off-street parking garage.

Active parking management controls shall be established for both residences and retail users of the project parking garage. Key fobs or similar electronic devices shall be assigned and given to each resident who owns/leases a parking space in the parking garage. Residents will use the key fob (or similar electronic device) to access the parking garage. Non-residents will be required to obtain a ticket (e.g., paper card with magnetic strip) that will register the time of vehicle entry. Because there are 22 spaces in the garage dedicated for retail use, the ticketing machine shall issue up to 22 tickets. When the last ticket has been distributed, no additional tickets would be issued from the machine, and an illuminated "Garage Full" sign at the entrance of the garage shall be emplaced to inform non-residents seeking parking in the garage that all retail parking spaces are fully occupied. As vehicles using the retail parking spaces exit the garage, the "Garage Full" sign will be automatically turn off. The sign would provide advanced notification to non-resident drivers prior to entry into the parking garage; and vehicles would not stop (or queue) along Capp Street resulting in increased traffic congestion along the street or nearby intersections.

Project Improvement Measure I-TR-3: Implement Transportation Demand Management Strategies to Reduce Single-Occupancy Vehicle Trips

The project sponsor and subsequent property owner should implement a Transportation Demand Management (TDM) Program that seeks to minimize the number of single-occupancy vehicle trips (SOV) generated by the proposed project for the lifetime of the project. The TDM Program targets a reduction in SOV trips by encouraging persons to select other modes of transportation, including walking, bicycling, transit, car-share, carpooling, and/or other modes.

The project sponsor has agreed to implement the following TDM measures:

1. **Identify TDM Coordinator:** The project sponsor should identify a TDM coordinator for the project site. The TDM Coordinator is responsible for the implementation and ongoing operation of all other TDM measures described below. The TDM Coordinator could be a brokered service through an existing transportation management association (e.g., the Transportation Management Association of San Francisco), or the TDM Coordinator could be an existing staff member (e.g., property manager); the TDM Coordinator does not have to work full-time at the project site. However, the TDM Coordinator should be the single point-of-contact for all

transportation-related questions from building occupants and City staff. The TDM Coordinator should provide TDM training to other building staff about the transportation amenities and options available at the project site and nearby.

The TDM Coordinator shall be in charge of maintaining a log (inventory) of complaints from neighbors, including Marshall Elementary School; and the project sponsor/property owner will work with the neighbors to address unforeseen problems, and to maintain an ongoing, constructive relationship with neighboring residents and businesses.

2. Provide Transportation and Trip Planning Information to Building Occupants:

- a. *Move-in packet:* Provide a transportation insert for the move-in packet that includes information on transit service (local and regional, schedules and fares), information on where transit passes can be purchased, information on the 511 Regional Rideshare Program and nearby bike and car share programs, and information on where to find additional mobile- or web-based alternative transportation materials (e.g., NextMuni phone app). This move-in packet should be continuously updated as local transportation options change, and the packet should be provided to each new building occupant. Provide Muni maps, as well as San Francisco Bicycle and Pedestrian maps upon request.
- b. *New-hire packet:* Require the retail tenants to provide a transportation insert in the new-hire packet that includes information on transit service (local and regional, schedules and fares), information on where transit passes can be purchased, information on the 511 Regional Rideshare Program and nearby bike and car share programs, and information on where to find additional web-based alternative transportation materials (e.g., NextMuni phone app). This new-hire packet should be continuously updated as local transportation options change, and the packet should be provided to each new building occupant. Provide Muni maps, as well as San Francisco Bicycle and Pedestrian maps upon request.
- c. *Posted information:* A local map and transit information could be installed on-site in a prominent and visible location, such as in a building lobby. The local map should clearly identify transit, bicycle, and key pedestrian routes, and also depict nearby destination and commercial corridors.

Project Improvement Measure I-TR-4: Installation of Traffic-Calming Devices at Basement Garage Exiting Lane

As an improvement measure to reduce potential conflicts between vehicles exiting the basement garage, and pedestrians traveling along the western sidewalk of Capp Street, the project sponsor shall install appropriate traffic calming devices (e.g., speed bump, rumble strips, "slow speed" signage, etc.) at the exiting travel lane along the garage driveway to reduce vehicle speeds of existing vehicles traveling out of the basement parking garage, and to further reduce potential vehicle-pedestrian conflicts.

Project Improvement Measure I-TR-5: Coordination of Move-In/Move-Out Operations, Large Deliveries, and Garbage Pick-Up Operations

To reduce the potential for parking of delivery vehicles in the travel lane adjacent to the curb lane on 16th, Mission, or Capp streets (in the event that the on- and off-street loading spaces are occupied), residential move-in and move-out activities and larger deliveries shall be scheduled and coordinated through building management. For retail/restaurant uses, appropriate delivery times shall be scheduled and shall be restricted to occur before 7:00 a.m., and between the hours of 10:00 a.m. and 2:00 p.m., and no deliveries shall occur after 3:00 p.m. to avoid any conflicts with vehicle traffic and pedestrians associated with the nearby Marshall Elementary School.

The project sponsor shall enforce strict truck-size regulations for use of the off-street loading spaces in the proposed freight-loading area. Truck lengths exceeding 35 feet shall be prohibited from entering the parking garage, and shall use existing on-street loading spaces along 16th Street, adjacent to the project site. Appropriate signage shall be installed at the parking garage entrance to notify drivers of truck-size regulations, and to notify drivers of on-street loading spaces on 16th Street. The project sponsor shall notify building management and related staff, and retail/restaurant tenants of imposed truck-size limits in the proposed freight loading area.

Appropriate move-in/move-out and loading procedures shall be enforced to avoid any blockages of any streets adjacent to the project site over an extended period of time, and reduce any potential conflicts between other vehicles and users of adjacent streets, as well as movers and pedestrians walking along 16th, Mission, and Capp streets. Curb parking on 16th, Mission, or Capp streets shall be reserved through SFMTA, or by directly contacting the local 311 service.

Project sponsor shall coordinate with Recology and enforce strict garbage pick-up periods. Such pick-up times shall be restricted to occur before 7:00 a.m., and between the hours of 10:00 a.m. and 2:00 p.m., and no garbage pick-up activities shall occur after 3:00 p.m. to avoid any conflicts with vehicle traffic and pedestrians associated with the nearby Marshall Elementary School.

Project Improvement Measure I-TR-6: Construction Truck Deliveries During Off-Peak Periods

Any construction traffic occurring between 7:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 6:00 p.m. would coincide with peak hour traffic and could temporarily impede traffic and transit flow, although it would not be considered a significant impact. Limiting truck movements to the hours between 9:00 a.m. and 3:30 p.m. (or other times, if approved by SFMTA) would further minimize disruption of the general traffic flow on adjacent streets during the a.m. and p.m. peak periods.

As required, the project sponsor and construction contractor(s) shall meet with the Sustainable Streets Division of the SFMTA, the Fire Department, Muni, and the Planning Department to determine feasible measures to reduce traffic congestion, including potential transit disruption, and pedestrian circulation impacts during construction of the project. To minimize cumulative traffic impacts due to project construction, the project sponsor shall coordinate with construction contractors for any concurrent nearby projects that are planned for construction, or which later become known.

Project Improvement Measure I-TR-7: Construction Management Plan

In addition to items required in the Construction Management Plan, the project sponsor shall include the following:

- *Carpool and Transit Access for Construction Workers* – As an improvement measure to minimize parking demand and vehicle trips associated with construction workers, the construction contractor shall include methods to encourage carpooling and transit use to the project site by construction workers in the Construction Management Plan contracts.
- *Project Construction Updates* – As an improvement measure to minimize construction impacts on nearby businesses, the project sponsor shall provide regularly updated information (typically in the form of website, news articles, on-site posting, etc.) regarding project construction and schedule, as well as contact information for specific construction inquiries or concerns.

Project Improvement Measure I-AQ-1: Construction Emissions Minimization Plan

- A. Prior to issuance of a construction permit, the project sponsor should submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and approval by an Environmental Planning Air Quality Specialist. The Plan should specify the extent to which the following measures are feasible and have been incorporated into the construction contracts:
- 1 All off-road equipment greater than 25 horsepower and operating for more than 20 total hours over the entire duration of construction activities should meet the following requirements:
 - a. Where access to alternative sources of power are available, portable diesel engines should be prohibited; and
 - b. All off-road equipment should have:
 - i. Engines that meet or exceed either U.S. Environmental Protection Agency or California Air Resources Board (ARB) Tier 2 off-road emission standards, and that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS), or
 - ii. Engines that meet Tier 3 off-road emission standards, or to the extent feasible, engines that meet Tier 4 off-road emission standards.
 - 2 The project sponsor should require that the idling time for off-road and on-road equipment be limited to no more than 2 minutes, and that construction operators properly maintain and tune equipment in accordance with manufacturer's specifications.
 - 3 The Plan should be updated quarterly, and 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 are not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For VDECS installed: technology type, serial number, make, model,

manufacturer, ARB verification number level, and installation date and hour meter reading on installation date.

- 4 The Plan should be kept on-site and available for review by any persons requesting it, and a legible sign should 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 should provide copies of Plan to members of the public as requested.

Appendix B
Pedestrian Wind Study, 1979 Mission Street

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1979 Mission Street
San Francisco, CA

Final Report

Pedestrian Wind Study

RWDI # 1402356

June 29, 2015

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1979 Mission Street – San Francisco, California
Pedestrian Wind Study
RWDI#1402356
June 29, 2015

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1. INTRODUCTION

Rowan Williams Davies & Irwin Inc. (RWDI) was retained by Maximus-BP 1979 Mission Street, LLC to conduct a Pedestrian Wind Study for the proposed project at 1979 Mission Street in San Francisco, California. The purpose of the study was to assess the wind environment around the development in terms of pedestrian comfort and hazard relative to wind metrics specified in the San Francisco Planning Code Section 148. The study objective was achieved through wind tunnel testing of a 1:300 (1" = 25') scale model for the following three development configurations:

- A – Existing:** all existing buildings on-site and in the surroundings including buildings under construction;
- B – Existing plus Project:** proposed 1979 Mission Street project present with surrounding buildings that are existing and under-construction; and,
- C – Project plus Cumulative:** proposed 1979 Mission Street project with surrounding buildings that are existing and under-construction, as well as approved proposed buildings.

The development site is located on the northeast corner of the intersection of Mission and 16th Streets in the Inner Mission neighborhood. The site abuts the northern and eastern boundaries of the street-level plaza and northeast entrance of the 16th Street Mission Bay Area Rapid Transit District (BART) Station.

Maximus-BP 1979 Mission Street LLC ("Applicant") is proposing to demolish two existing one-story commercial buildings and construct a five-story to ten-story mixed use building with approximately 34,198 gross square feet ("gsf") of ground floor retail use, 331 dwelling units consisting of 291,027 gsf and 63,687gsf of parking/loading/building services at the ground floor and basement level (the "Project"). There will be 22 off-street parking spaces for retail use, 133 off-street parking spaces for the residential use and 4 car-share spaces, for a total of 163 spaces plus three freight loading spaces. The Project will provide 162 Class 1 secured bicycle parking spaces on-site and 30 Class 2 bicycle spaces on Mission and Capp Streets.

The test model was constructed using the design information and drawings listed in Appendix A. This report summarizes the methodology of the wind tunnel studies for pedestrian wind conditions, describes the wind comfort and wind hazard criteria associated with wind force, as used in the current study, and presents the test results. The placement for wind measurement locations was based on our experience and understanding of pedestrian usage for this site, and was reviewed by the project team and the City of San Francisco prior to the wind tunnel test.

2. PRINCIPAL RESULTS

The results of the tests are discussed in detail in Section 5 of this report and are summarized as follows:

- Existing wind speeds on the Project site are generally acceptable with those at 28 out of 50 locations exceeding the comfort criterion of 11 mph. Existing winds at one location on 16th Street exceed the wind hazard criterion.
- Wind comfort conditions at grade level for the Existing plus Project configuration and the Project plus Cumulative configuration are predicted to remain generally similar compared to the Existing configuration, with a reduction in the total number of locations exceeding the 11 mph criterion.
- In both the Existing plus Project and Project plus Cumulative configurations, winds at all locations are predicted to meet the wind hazard criterion, with average wind speeds similar to that in the Existing configuration.

3. METHODOLOGY

3.1 Wind Tunnel Testing

As shown in Figures 1a through 1c, the wind tunnel model included the Project site and all relevant surrounding buildings and topography within a 1125 foot radius of the study site. The mean speed profile and turbulence of the natural wind approaching the modelled area were simulated in RWDI's boundary-layer wind tunnel. The model was instrumented with 50 wind speed sensors to measure mean and gust wind speeds at a full-scale height of approximately 5 ft above local grade. Two of these measurement locations on the site (Locations 11 and 16) were covered by the existing building in the Existing configuration. These locations would be accessible to pedestrians with the proposed Project completed, and have been presented for the Existing plus Project and Project plus Cumulative configurations. These measurements were recorded and analyzed for the west-southwest, west, west-northwest and northwest wind directions, as per the City of San Francisco pedestrian wind tunnel testing methodology.

3.2 Local Climate

Average wind speeds in San Francisco are the highest in the summer and lowest in winter. However, the strongest peak winds occur in winter. Throughout the year the highest wind speeds occur in mid-afternoon and the lowest in the early morning. Westerly to northwesterly winds are the most frequent and strongest winds during all seasons. Of the primary wind directions, four have the greatest frequency of occurrence and also make up the majority of the strong winds that occur. These winds include the northwest, west-northwest, west and west-southwest.

Data describing the speed, direction, and frequency of occurrence of winds were gathered at the old San Francisco Federal Building at 50 United Nations Plaza (at a height of 132 ft.) during the six-year period, 1945 to 1950.

3.3 Pedestrian Level Wind Criteria

This Project is located in an area that is not subject to the San Francisco Planning Code Section 148, Reduction of Ground-level Wind Currents in C-3 Districts. However, the proposed Project is subject to the California Environmental Quality Act (CEQA). Therefore, the potential for the Project to result in hazardous winds in the Project vicinity must be assessed. Planning Code Section 148 specifies the wind hazard criterion used by the San Francisco Planning Department to identify significant wind impacts. This analysis is performed using the wind testing analysis and evaluation methods to determine conformity with Planning Code Section 148 (see Appendix B). A brief description of the hazard criterion is provided below. The comfort criteria have also been included for information purposes.

The Planning Code defines wind speeds in terms of equivalent wind speeds, and average wind speed (mean velocity), adjusted to include the level of gustiness and turbulence. The equivalent wind speeds were calculated according to the specifications in the San Francisco Planning Code Section 148, whereby the mean hourly wind speed is increased when the turbulence intensity is greater than 15% according to the following formula:

$$EWS = V_m \times (2 \times TI + 0.7)$$

where

EWS	= equivalent wind speed
V_m	= mean pedestrian-level wind speed
TI	= turbulence intensity

Comfort Criteria

The comfort criteria are that wind speeds should not exceed, more than 10% of the time, 11 mph in substantial pedestrian use areas, and 7 mph in public seating areas.

Hazard Criterion

The hazard criterion of the Planning Code requires that buildings not cause equivalent wind speeds to reach or exceed the hazard level of 26 mph as averaged from a single full hour of the year.

The comfort criteria are based on wind speeds that are measured for one minute and averaged. In contrast, the hazard criterion is based on winds that are measured for one hour and averaged. When stated on the same basis as the comfort criteria winds, the hazard criterion speed is a one-minute average of 36 mph.



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3.4 Cumulative Buildings

Proposed buildings in the surrounding area that have been approved by the city were modeled in accordance with the information received on March 18, 2015 from the City of San Francisco Planning Department. These buildings were included in the Project plus Cumulative configuration; the sites are shown in Image 1 and listed in the following table.

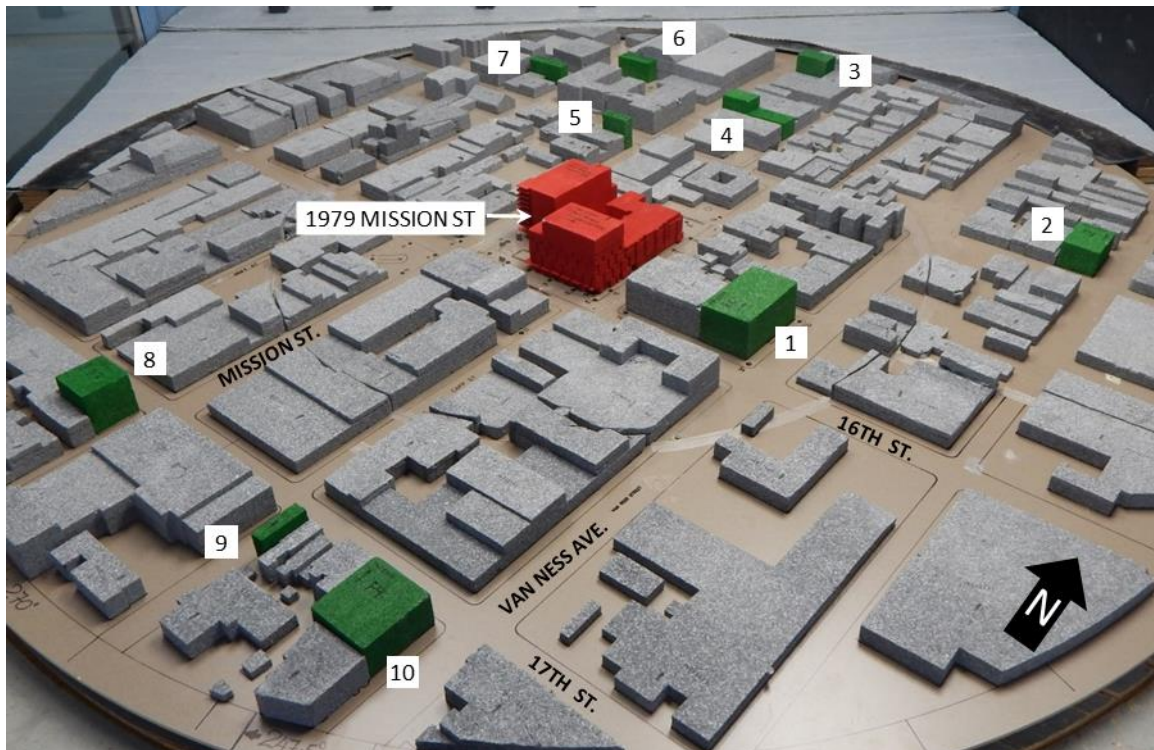


Image 1: Cumulative buildings (numbered 1 - 10)

1	490S VAN NESS AVE.	6	49 JULIAN ST.
2	1450 15 TH ST.	7	80 JULIAN ST.
3	1801 MISSION ST.	8	2100 MISSION ST
4	1863 MISSION ST.	9	3249 17 TH ST
5	1900 MISSION ST.	10	600 VAN NESS AVE.

4. TEST RESULTS

This section presents the results of the wind tunnel measurements analyzed in terms of equivalent wind speeds as defined by the equation in Section 3.3. The text in the report simply refers to the data as wind speeds.

Figure 2 depicts the wind speed measurement locations on and around the Project site. Table 1, located in the tables section of this report, presents the wind comfort results for the three configurations tested. For each measurement point, the measured 10% 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. A letter “e” in the last column of each configuration indicates a wind comfort exceedance.

Table 2 presents the wind hazard results, and lists the predicted wind speed to be exceeded one hour per year. The predicted number of hours per year that the Section 148 wind hazard criterion (one minute wind speed of 36 mph) is exceeded is also provided. A letter “e” in the last column of each configuration indicates a wind hazard exceedance.

4.1 Wind Comfort Conditions

For the Existing configuration, in the vicinity of the Project site, wind conditions are found to be generally acceptable with wind speeds averaging 12 mph for all measurement locations at grade level. Winds at 28 out of 50 locations exceed the Planning Code's 11 mph pedestrian-comfort criterion.

In the Existing plus Project configuration, the taller proposed building would shelter areas to the east of the site from the prevailing westerly winds. Overall wind comfort conditions are expected to remain similar to those in the Existing configuration and wind speeds would continue averaging at 12 mph. The number of locations where wind speeds would exceed the 11 mph criterion is predicted to decrease to 22 from 28 in the Existing configuration.

With the addition of proposed Projects in the surrounding area, in the Project plus Cumulative configuration, average wind speeds are predicted to remain at 12 mph. Winds at 22 of the 50 locations are predicted to exceed the comfort criterion.

4.2 Wind Hazard Conditions

Of the 50 locations tested for the Existing configuration, winds at one location on 16th Street, southeast of the Project site, currently exceeds the hazard criterion (Location 41 in Table 2 and Figure 2). When the Project is added to the site, in the Existing plus Project configuration, the winds at this location would no longer exceed the wind hazard criterion. No new locations of wind hazard exceedance would be created and speeds would continue averaging at 23 mph, similar to the Existing Configuration. In the Project plus Cumulative configuration, the average wind speed is predicted to be 22 mph, with wind speeds at all locations below the hazard criterion. (see summary in Table 2).



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5. APPLICABILITY OF RESULTS

The results presented in this report pertain to the model of the proposed 1979 Mission Street Project constructed using the architectural design drawings listed in Appendix A. Should there be design changes that deviate from this list of drawings, the results presented may change. Therefore, if substantial changes in the design are made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.

TABLES



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Table 1: Wind Comfort Results

References	Existing			Existing plus Project				Project plus Cumulative			
Location Number	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph (%)	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph (%)	Speed Change Relative to Existing (mph)	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph (%)	Speed Change Relative to Existing (mph)	Exceeds
1	13	21	e	13	20	0	e	13	19	0	e
2	12	17	e	11	7	-2		11	10	-2	
3	15	25	e	11	10	-3		13	18	-2	e
4	16	29	e	18	38	2	e	16	31	1	e
5	13	20	e	18	37	5	e	17	34	4	e
6	13	19	e	16	28	3	e	15	26	2	e
7	11	10		16	28	5	e	15	27	5	e
8	10	6		11	10	1		11	10	1	
9	10	7		8	2	-2		7	0	-3	
10	11	10		11	10	-1		10	6	-1	
*11	n/a	n/a	n/a	14	20	n/a	e	14	21	n/a	e
12	15	26	e	19	42	4	e	20	45	5	e
13	12	15	e	11	10	-1		10	8	-2	
14	10	5		9	2	-1		8	2	-1	
15	10	7		9	4	-1		9	2	-2	
*16	n/a	n/a	n/a	5	0	n/a		5	0	n/a	
17	11	10		7	1	-4		7	1	-3	
18	10	7		8	2	-2		10	5	-1	
19	12	14	e	9	3	-3		9	2	-3	
20	12	12	e	9	4	-2		9	2	-3	
21	13	19	e	14	24	1	e	13	18	0	e
22	9	4		9	4	0		9	2	-1	
23	7	1		6	0	-1		6	0	-1	
24	15	27	e	15	27	0	e	15	24	0	e
25	10	6		13	19	3	e	14	20	4	e
26	9	3		14	23	5	e	14	21	5	e
27	8	2		13	19	5	e	12	16	4	e
28	11	10		12	12	0	e	11	10	0	
29	12	14	e	11	10	-1		11	10	-1	
30	8	1		8	1	0		8	1	0	
31	13	21	e	13	20	0	e	13	19	-1	e
32	11	10		12	13	1	e	11	10	1	



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Table 1: Wind Comfort Results

References	Existing			Existing plus Project				Project plus Cumulative			
Location Number	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph (%)	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph (%)	Speed Change Relative to Existing (mph)	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph (%)	Speed Change Relative to Existing (mph)	Exceeds
33	11	10		11	10	0		11	10	0	
34	12	17	e	12	16	0	e	12	16	0	e
35	18	39	e	17	37	0	e	17	34	-1	e
36	11	10		13	20	2	e	13	20	2	e
37	14	23	e	18	38	4	e	18	39	5	e
38	11	10		9	5	-2		9	4	-2	
39	13	19	e	9	6	-4		11	10	-2	
40	12	13	e	12	12	0	e	13	17	1	e
41	17	34	e	10	5	-8		10	5	-8	
42	12	14	e	10	8	-1		11	10	-1	
43	14	21	e	11	10	-3		11	10	-3	
44	13	19	e	10	7	-2		14	20	1	e
45	13	20	e	11	10	-2		11	10	-2	
46	13	21	e	8	3	-5		7	1	-6	
47	12	13	e	9	4	-3		8	2	-4	
48	15	29	e	15	28	0	e	14	24	-1	e
49	12	15	e	13	17	1	e	13	16	1	e
50	11	10		10	7	0		10	5	-1	
Average mph, Average % and Total exceedances	12	15	28	12	14	0	22	12	14	0	22

***NOTE:**

Data from sensors 11 and 16 are not available for the Existing configuration as the sensors were within the footprint of the existing building model.



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1979 Mission Street – San Francisco, California
Pedestrian Wind Study
RWDI#1402356
June 26, 2015

Page 1 of 2

Table 2: Wind Hazard Results

References	Existing			Existing plus Project				Project plus Cumulative			
Location Number	Wind Speed Exceeded 1 hr/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Exceeds	Wind Speed Exceeded 1 hr/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 hr/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds
1	23	0		25	0	0		24	0	0	
2	23	0		19	0	0		19	0	0	
3	27	0		21	0	0		23	0	0	
4	31	0		35	0	0		32	0	0	
5	27	0		36	0	0		34	0	0	
6	23	0		32	0	0		29	0	0	
7	21	0		35	0	0		35	0	0	
8	20	0		19	0	0		19	0	0	
9	19	0		16	0	0		13	0	0	
10	23	0		22	0	0		19	0	0	
*11	n/a	n/a	n/a	28	0	n/a		27	0	n/a	
12	28	0		35	0	0		36	0	0	
13	21	0		24	0	0		22	0	0	
14	19	0		17	0	0		17	0	0	
15	21	0		20	0	0		18	0	0	
*16	n/a	n/a	n/a	12	0	n/a		12	0	n/a	
17	21	0		14	0	0		15	0	0	
18	21	0		15	0	0		18	0	0	
19	23	0		16	0	0		16	0	0	
20	22	0		16	0	0		15	0	0	
21	23	0		27	0	0		25	0	0	
22	18	0		17	0	0		15	0	0	
23	13	0		11	0	0		11	0	0	
24	26	0		28	0	0		26	0	0	
25	18	0		24	0	0		25	0	0	
26	17	0		28	0	0		25	0	0	
27	16	0		27	0	0		24	0	0	
28	21	0		25	0	0		22	0	0	
29	21	0		20	0	0		19	0	0	
30	14	0		14	0	0		14	0	0	
31	24	0		23	0	0		23	0	0	
32	20	0		22	0	0		21	0	0	
33	20	0		20	0	0		20	0	0	



Table 2: Wind Hazard Results

References	Existing			Existing plus Project				Project plus Cumulative			
Location Number	Wind Speed Exceeded 1 hr/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Exceeds	Wind Speed Exceeded 1 hr/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 hr/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds
34	22	0	e	21	0	0		21	0	0	
35	31	0		30	0	0		28	0	0	
36	18	0		24	0	0		25	0	0	
37	25	0		36	0	0		35	0	0	
38	21	0		19	0	0		19	0	0	
39	23	0		21	0	0		25	0	0	
40	22	0		26	0	0		27	0	0	
41	38	2		19	0	-2		19	0	-2	
42	20	0		22	0	0		22	0	0	
43	28	0		21	0	0		21	0	0	
44	23	0		20	0	0		32	0	0	
45	24	0		22	0	0		22	0	0	
46	24	0		17	0	0		16	0	0	
47	24	0		18	0	0		17	0	0	
48	29	0		29	0	0		26	0	0	
49	25	0		25	0	0		25	0	0	
50	21	0		20	0	0		18	0	0	
Average mph, Total hours and Total exceedances	23	2	1	23	0	-2	0	22	0	-2	0

***NOTE:**

Data from sensors 11 and 16 are not available for the Existing configuration as the sensors were within the footprint of the existing building model.

FIGURES



Wind Tunnel Study Model Existing

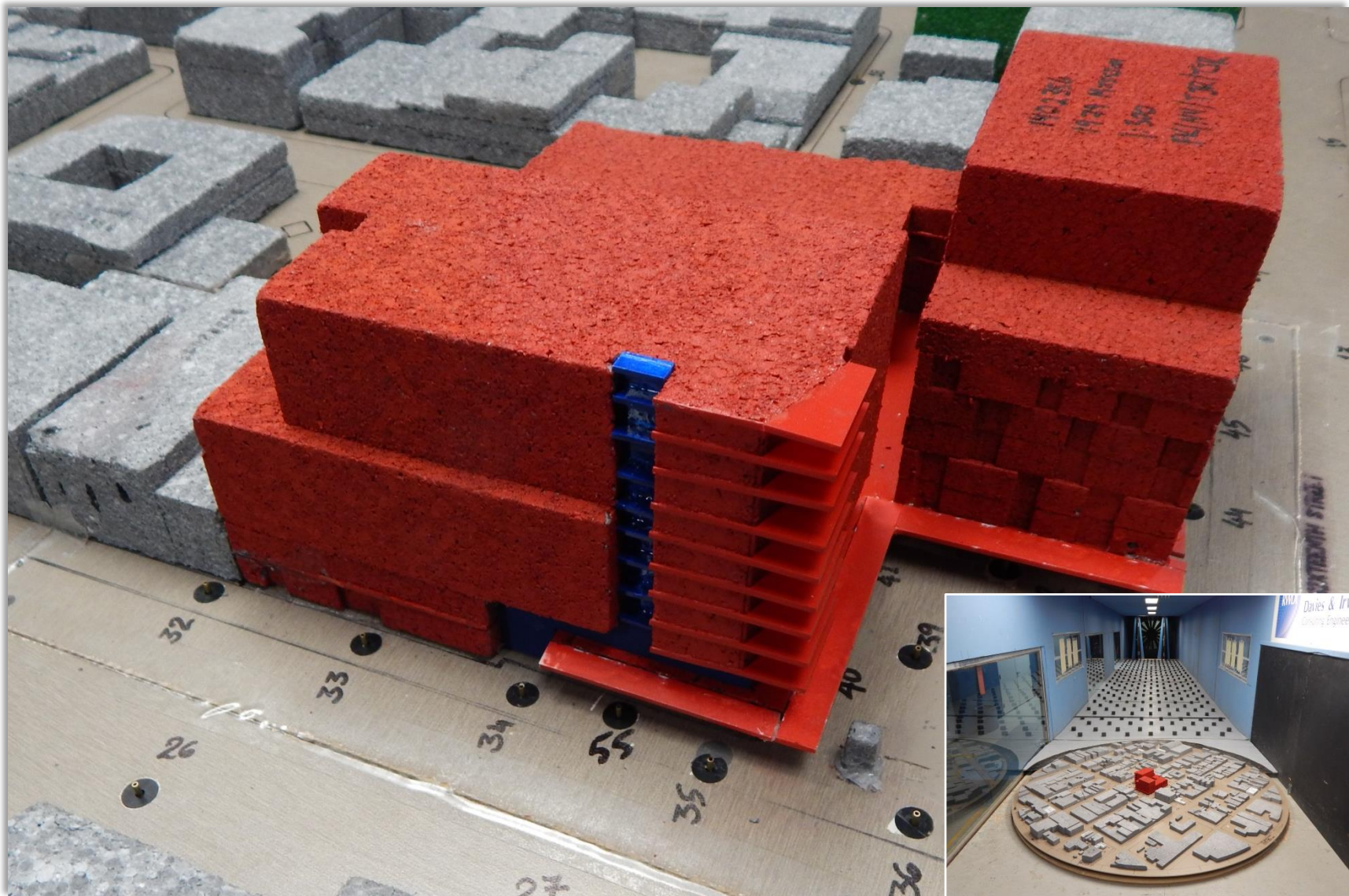
1979 Mission Street – San Francisco, California

Figure No. 1a

Project #1402356

Date: June 26, 2015





Wind Tunnel Study Model
Existing plus Project

1979 Mission Street – San Francisco, California

Figure No. 1b

Project #1402356

Date: June 26, 2015





Wind Tunnel Study Model **Project plus Cumulative**

1979 Mission Street – San Francisco, California

Project #1402356

Figure No. 1c

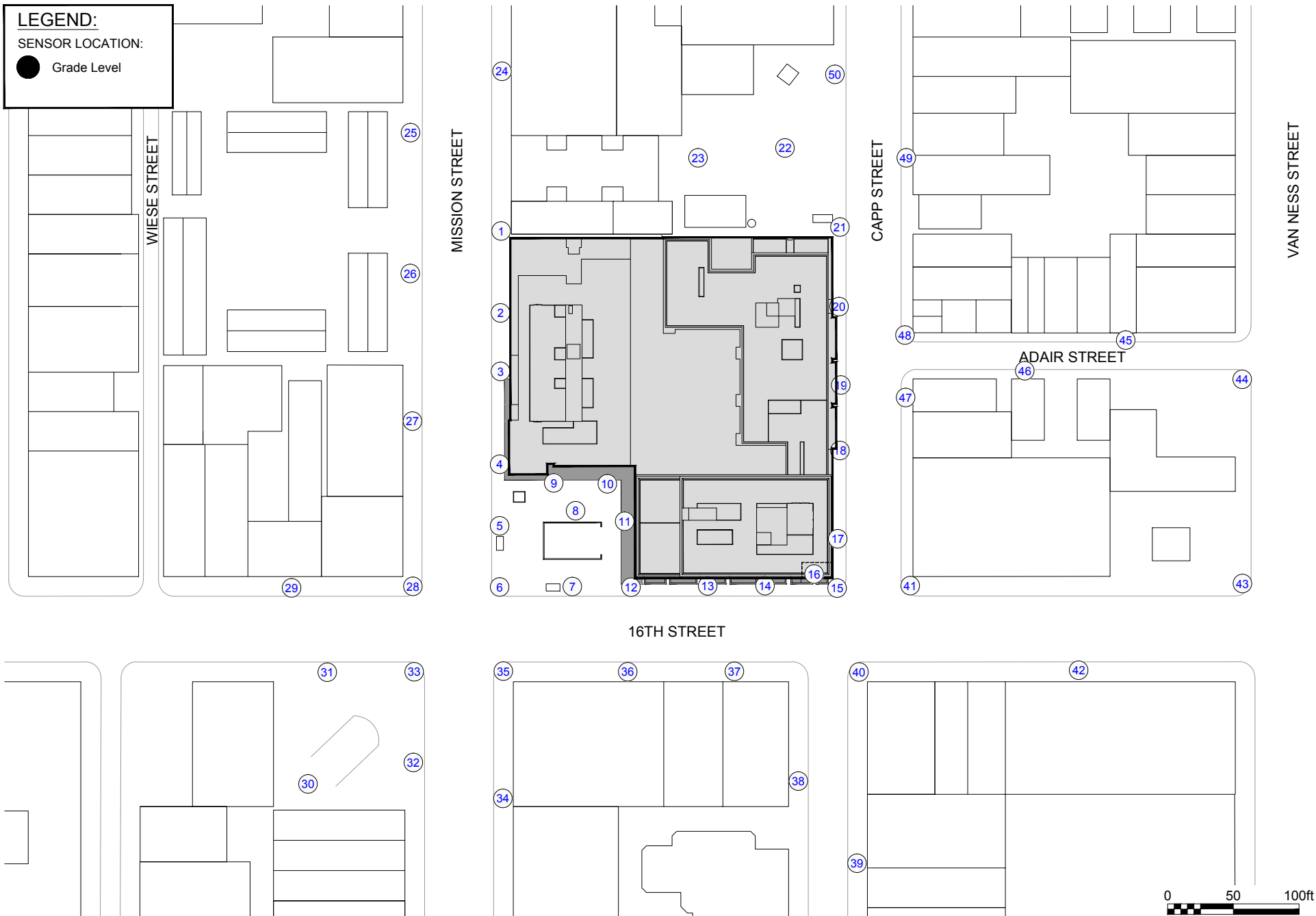
Date: June 26, 2015



LEGEND:

SENSOR LOCATION:

● Grade Level



Pedestrian Level Wind Measurement Sensor Plan

1979 Mission Street - San Francisco, CA



Project #1402356

Drawn by: ARM	Figure: 2
Approx. Scale: 1"=100'	
Date Revised: June 26, 2015	



APPENDIX A

APPENDIX A: DRAWING LIST FOR MODEL CONSTRUCTION

The drawings and information listed below were received from Skidmore Owings and Merrill LLP and were used to construct the scale model of the proposed 1979 Mission Street project. Should there be any design changes that deviate from this list of drawings, the results may change. Therefore, if changes in the design area made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.

Description	File Name	File Type	Date Received (dd/mm/yyyy)
3D Model of proposed building	2015423_1979_Wind-Options.3dm	Rhino	24/04/2015

APPENDIX B

APPENDIX B: SAN FRANCISCO PLANNING CODE SECTION 148

Reduction of Ground-level Wind Currents in C-3 Districts

- a) **Requirement and Exception.** In C-3 Districts, buildings and additions to existing buildings shall be shaped, or other wind-baffling measures shall be adopted, so that the developments will not cause ground-level wind currents to exceed, more than 10 percent of the time year round, between 7:00 a.m. and 6:00 p.m., the comfort level of 11 m.p.h. equivalent wind speed in areas of substantial pedestrian use and seven m.p.h. equivalent wind speed in public seating areas.

When preexisting 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.

- b) **Definition.** The term "equivalent wind speed" shall mean an hourly mean wind speed adjusted to incorporate the effects of gustiness or turbulence on pedestrians.
- c) **Guidelines.** Procedures and Methodologies for implementing this section shall be specified by the Office of Environmental Review of the Department of City Planning. (added by Ord. 414-85, App. 9/17/85)

APPENDIX C

APPENDIX C: APPROVED SCOPE OF WORK

Wind Climate Model

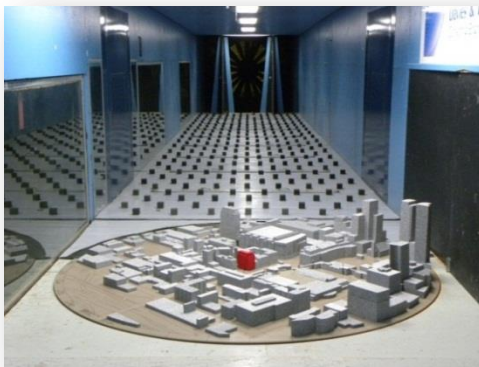
Wind Data: Long-term meteorological data for San Francisco will be used for the Pedestrian Wind Tunnel Study. This data, along with information on the topography surrounding the wind instrument, will be used to establish wind speeds for the area and to develop a mathematical model of the joint probability of wind speed and direction.

Pedestrian Wind Study (Wind Tunnel Testing)

Objective: The proposed Pedestrian Wind Study involves testing a three-dimensional physical scale model of the development and surroundings in a boundary layer wind tunnel to quantitatively measure the wind conditions for pedestrians at important locations around the site.

Proximity Model: A proximity model of the existing buildings and relevant surroundings within a 1600 foot radius of the center of the development site will be constructed at a 1:400 scale (equivalent to 1" = 33').

The buildings immediately surrounding the study site will be modeled in more detail than buildings beyond this radius. The model will incorporate relevant topographic changes as applicable. Surroundings beyond the limits of the proximity model will be appropriately simulated by spires and roughness blocks situated on the wind tunnel floor upwind of the study model. This will provide an accurate representation of the wind speed and turbulence profiles of wind approaching the study model.



Example of scale models in one of RWDI's boundary layer wind tunnels.

Study Building Test Model: To conduct the tests, a 1:400 scale model of the proposed project will be built and added to the proximity model described above. Wind speed sensors that are used to measure the mean and gust wind velocities at a full-scale height of 5 ft above ground, will be installed on the model taking into consideration outdoor pedestrian-use areas around the proposed development.

Wind Tunnel Testing: The test model together with the proximity model will be tested in our boundary layer wind tunnel where the natural wind speed and turbulence levels will be simulated. During the tests, wind speed data will be collected for four wind directions per the City of San Francisco pedestrian wind tunnel testing methodology. We anticipate measuring wind speeds at approximately 50 pedestrian locations which will be provided to you and the Planning Department for review and comment prior to testing.

Test Configurations: Four configurations of the study site and surroundings will be tested for our base studies:

- **Existing:** the existing surroundings, with any buildings currently on site, without the proposed development;
- **Existing plus Development:** the proposed development, along with existing surrounding structures;
- **Existing plus Development plus Cumulative:** the proposed development, along with existing surrounding structures, and future buildings (Cumulative); and,
- **Existing plus Alternative Design:** one alternative design, along with existing surroundings structures.

Analysis: The wind tunnel data will be analyzed together with the area's long term meteorological statistics to predict how often selected wind speed ranges will occur at each location. Results will be reviewed against the City of San Francisco pedestrian wind comfort and safety criteria.

In the event that undesirable conditions are found, we would use our experience and judgment to suggest design concepts to minimize uncomfortable winds. If conditions are particularly severe in critical areas, we may recommend additional testing to develop specific solutions. Additional testing in connection with detailed solution development has not been included within the scope of this proposal.

Report & Deliverables: RWDI will contact you as soon as preliminary results are available to arrange a conference call to discuss our findings. A draft report describing methodology, results and recommendations will be prepared upon completion of the study and sent to SOM and the City for review. Our final report will incorporate all comments and edits from SOM and the City.

Appendix C
1979 Mission Street Shadow Analysis

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34 Corte Madera Avenue
Mill Valley, CA 94941

November 23, 2015

TO: Debra Dwyer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

SUBJECT: 1979 Mission Street Shadow Analysis

INTRODUCTION

CADP performed a technical shadow analysis to measure, quantify, and discuss potential net new shadow impacts that the 1979 Mission Street project (Project) may have on the playground and outdoor learning area at Marshall Elementary School, and on the two public plazas at the 16th Street Mission Bay Area Rapid Transit (BART) Station. This analysis is based on project information provided by Skidmore, Owings & Merrill, the project architect, in conjunction with data developed exclusively by CADP. In addition, information regarding uses within the 16th Street Mission BART Station plazas was collected by Planning Department staff; school schedules and use of the playground and outdoor learning area at Marshall Elementary School were provided from the school web site and confirmed with school personnel by the Planning Department.

The Marshall Elementary School and BART spaces are not under the jurisdiction of the Recreation and Park Department. However, the Planning Department determined that because the Proposed Project is subject to review under the California Environmental Quality Act (CEQA)—and because it would potentially cast new shadow on another outdoor recreation facility, park, or public open space, adversely affecting the use or enjoyment of that park or open space—a quantitative shadow analysis is required.

REPORT ORGANIZATION

This report is organized as follows:

1. Background on CEQA Review – Provides background information about the need for a shadow analysis for this Project and for a determination of shadow impacts in accordance with CEQA;
2. Proposed Project – Provides a description of the Proposed Project, a description of the existing site and uses, and a description of surrounding properties;
3. Potentially Affected Properties – Provides information about the three potentially affected properties and the uses of the open spaces on the properties: Marshall Elementary School and the 16th Street Mission BART Station northeast and southeast BART plazas;
4. Methodology for Analysis – Summarizes the methods used in the analysis; and
5. Findings – Summarizes the shadow findings for each property, including existing and proposed shadows, and provides a description of the maximum net new shadow day (day with greatest impact). The analysis of the Proposed Project's impacts is both quantitative and qualitative.

Several exhibits supporting the analysis are attached to the report. They include Exhibit A – Marshall Elementary School Schedules; Exhibit B – Mission Street Public Life Plan Survey Data; Exhibit C – Shadow Projection Graphics; and Exhibit D – Summaries and Quantitative Results.



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Mill Valley, CA 94941

1. BACKGROUND ON CEQA REVIEW

Because the Project includes construction of a structure greater than 40 feet in height, a preliminary shadow fan analysis was required under Proposition K. The preliminary shadow fan prepared by the Planning Department showed that the Project would not shade any Recreation and Park Department properties; and that the Proposed Project, therefore, is not subject to the provisions of Planning Code Section 295.¹ However, it was determined that because the Project has the potential to shade other public recreation and open spaces, further quantitative shadow analysis was required.

To inform the CEQA analysis, the Planning Department may require a detailed quantitative analysis for non-Section 295 properties in cases where Section 295 does not apply, based on a project's height or some other circumstance. For the Proposed Project, the Planning Department required a detailed quantitative analysis to determine the net new shadow that would result; and documentation of the existing activities in the affected open spaces. The open spaces and outdoor recreation facilities potentially affected by the Proposed Project are the 16th Street Mission BART Station plazas and the schoolyard and outdoor classroom at Marshall Elementary School.

The Planning Department has set forth Shadow Analysis Procedures and Scope Requirements for quantitatively measuring a proposed project's shadow impact.² The Theoretically Available Annual Sunlight (TAAS) is the amount of sunlight that would be available in a park or open space in the course of a year if there were no shadows from structures, trees, or other facilities. TAAS is calculated in square-foot-hours (sfh)—the expression of shadow over the course of an hour, based on 15-minute sample times—by multiplying the area in square feet of the park/open space by 3,721.4 (the maximum number of hours of sunlight available on an annual basis in San Francisco). Quantitatively, new shadows cast by a proposed project are to be measured by the additional annual amount of shadow, expressed in sfh as a percent of TAAS.

2. PROPOSED PROJECT

Site Description and Current Use

The Project site is an approximately 57,325-square-foot parcel (Assessor's Block 3553, Lot 052) at 1979 Mission Street, on the block bounded by Mission Street to the west, 16th Street to the south, Capp Street to the east, and 15th Street to the north. The Project site abuts the existing 16th Street Mission BART Station northeast BART Plaza to the north and east of the plaza, and abuts the Marshall Elementary School playground to the south of the playground. Currently, the Project site is improved with retail buildings (including Walgreens, Burger King, and other neighborhood businesses) and a surface parking lot accessed from Capp Street. The existing buildings on the Project site are one story or one story plus mezzanine, ranging in height from 23 to 30 feet.

Surrounding Property and Neighborhood

The Project site is surrounded by a variety of uses, including commercial, residential, entertainment, and institutional uses. Marshall Elementary School is to the north of the Project site along Capp Street. The Victoria Theatre is south of the Project site, immediately across 16th Street. Across Mission Street to the west are commercial buildings ranging from one to four stories, approximately 15 to 60 feet in height. Immediately to the southwest of the Project site is the northeast BART Plaza of the 16th Street Mission BART Station, at the northeastern corner of the intersection of Mission and 16th streets. The southwest BART Plaza and entrance

¹ San Francisco Planning Department, 2014. 1979 Mission Street Shadow Fan Analysis. May 21. A copy of this document is available at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of case file 2013.1543E.

² San Francisco Planning Department, 2014. *Shadow Analysis Procedures and Scope Requirements*. This document is available online at <http://sfmea.sfplanning.org/Shadow%20Memo.pdf>. Accessed October 27, 2015.



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for the BART station is across 16th and Mission streets from the Project site. Across 16th Street from the Project site are commercial buildings ranging from three to five stories, approximately 40 to 65 feet in height. North of the Project site there is a mix of commercial, mixed-use (commercial on the ground floor and residential above), and residential buildings, and Marshall Elementary School; these buildings range in height from two to four stories, and in height from approximately 30 to 50 feet. Across Capp Street from the Project site are residential and commercial buildings ranging from one to four stories, approximately 15 to 65 feet in height.

Project Description

The Project proposes to demolish the existing one-story structures on the Project site, and to construct a five- to 10-story, 389,808-gross-square-foot mixed-use development with 331 residential units above 32,676 square feet of ground floor retail space. The new building would include two 10-story components of approximately 105 feet in height, exclusive of the elevator penthouses, and one five-story component of 55 feet in height, exclusive of the elevator penthouse.

There will be off-street parking in the basement garage and at the ground floor level, which will comprise 162 off-street parking spaces (22 independently accessible spaces for retail use, four car share spaces, 136 spaces for the residential units, one handicap van parking space, and three freight loading spaces). The basement garage and ground floor levels will also house approximately 162 Class 1 bicycle spaces. There will be a minimum of 30 Class 2 bicycle spaces in the public right-of-way in two bicycle corrals; one on Mission Street and one on Capp Street. Ingress and egress to the off-street parking spaces, freight loading spaces, and garbage and recycling pick up will be from Capp Street via a 20-foot-wide garage door and a 20-foot-wide curb cut.

3. POTENTIALLY AFFECTED PROPERTIES

Marshall Elementary School

The Marshall Elementary School playground is relatively level; it is located along Capp Street, between the Marshall Elementary School building and the Project site. West of the main school building there is an outdoor learning area that provides a garden and classroom space. The playground is on the southern portion of the school site; it consists of a paved play area, with a designated kickball diamond and four-square patterns, basketball hoop, jungle gym, and new-turf soccer field. The playground has one tree, close to the school building on the western side of the playground. A temporary trailer, which is used as a library, is situated at the southwestern corner of the playground. An aerial image of the area, showing the locations of the outdoor learning area and playground boundary, is included below as Figure 1a.

The annual school year is typically from mid-August through mid-July. The daily schedule for the school is from 8:15 a.m. through 6:00 p.m. Recess and lunch times occur between 10:15 a.m. and 1:00 p.m., and the school day ends at 2:40 p.m. The playground is generally used throughout the day, from 8:15 a.m. through 6:00 p.m. In addition to being used for recess and lunch/recess periods, the playground is used during the school day for physical education classes; after 2:40 p.m., it is used for the After School Program³ Figure 1b shows the configuration of the playground.

The outdoor learning area is typically in use from 9:00 a.m. through 5:00 p.m., 5 days per week (Monday through Friday).⁴

³ Avila, Peter, 2014. Telephone record of communication between Debra Dwyer, Planning Department staff, and Peter Avila, Principal, Marshall Elementary School. November 20. A copy of this document is available for review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case file 2013.1543E.

⁴ Ibid.



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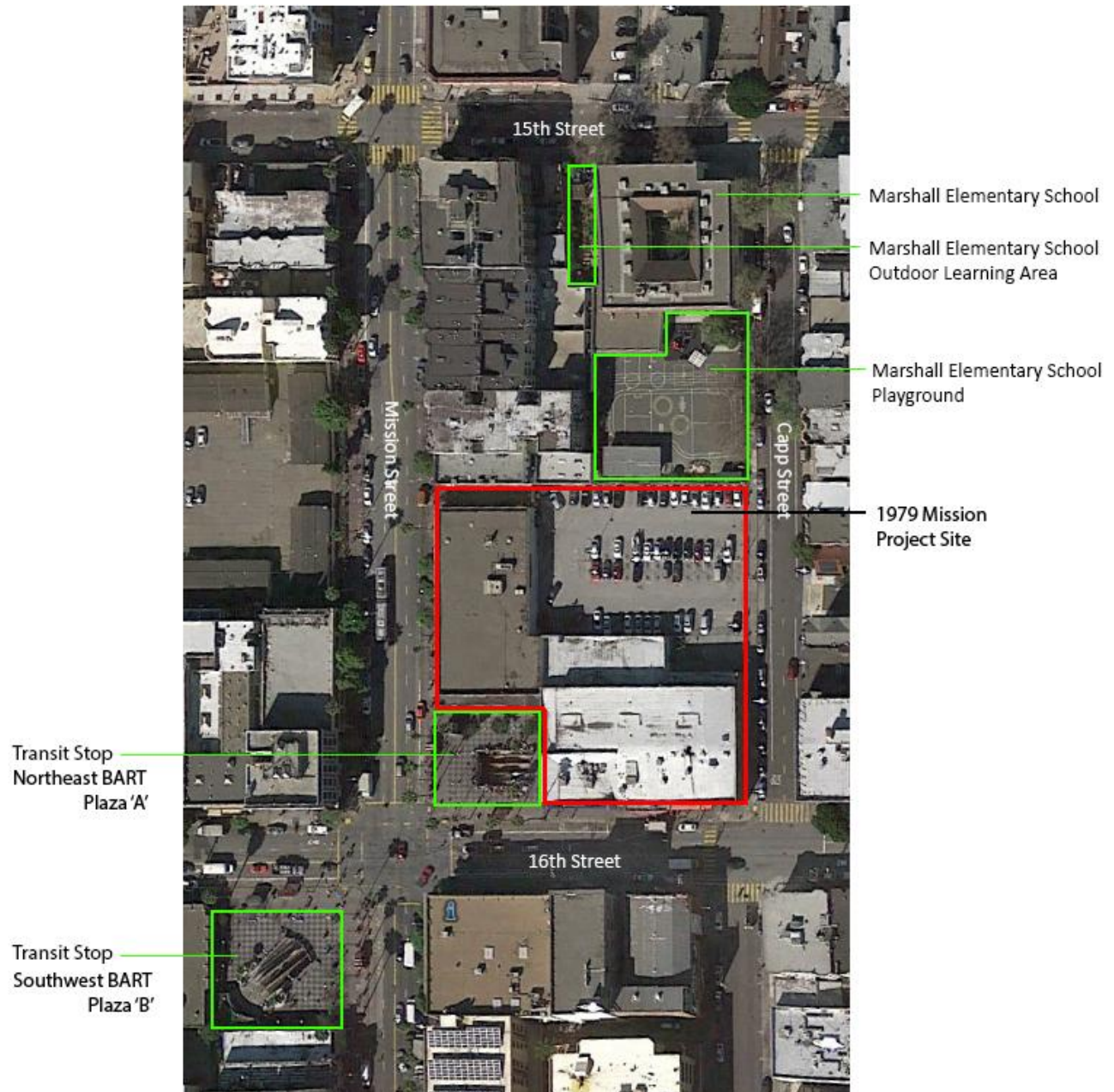


Figure 1a. Aerial image of area.



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Mill Valley, CA 94941



Source: Skidmore, Owings & Merrill LLP, 2015.

Figure 1b. Detail of Marshall Elementary School Playground Layout

In past years, there has been a Summer Program during the summer break, which includes activities in the playground from 8:15 a.m. to 3:15 p.m. San Francisco Unified School District has consolidated the number of school sites at which the Summer Program is offered, and there currently is no summer program at Marshall Elementary School.⁵ Although it is not known if Marshall Elementary School would be a program site for the Summer Program in the future, this analysis conservatively assumes that it could be a Summer Program site.

Information regarding the 2014-2015 schedule and the anticipated 2015 Summer Program schedule is provided in Exhibit A.

⁵ Ibid.



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16th Street Mission BART Station Plazas

The 16th Street Mission BART Station is accessed via two public plazas: one, approximately 5,821 square feet in size, is on the northeastern corner of the intersection of 16th and Mission streets (Plaza A in Figure 1a); and the second, approximately 8,678 square feet in size, is on the southwestern corner of the intersection (Plaza B in Figure 1a). The southwest BART Plaza (Plaza B) was renovated in 2003. The northeast BART Plaza (Plaza A) was renovated in 2006, as part of a cooperative effort between BART, the Metropolitan Transportation Commission, San Francisco County Transportation Authority, and the 16th Street community. The renovated 16th Street northeast BART Plaza incorporates artwork into both the functional elements, such as the fencing, and sculptural elements, such as the work atop the elevator. Both plazas also include benches, trash collection receptacles, and palm and magnolia trees.

There are four transit stops adjacent to the BART plazas. At each plaza, there is a stop on 16th Street and one on Mission Street. The 16th Street transit stops serve the 22 Fillmore and the 55 16th Street bus routes. The Mission Street transit stops serve the 14 Mission, the 14R Mission Rapid (formerly the 14L Mission Limited), the inbound 33 Stanyan, and the 49 Van Ness-Mission bus routes.

- **Northeast BART Plaza.** The northeast BART Plaza is framed by one-story commercial uses on the Project site to the north and east of the plaza; 16th Street to the south; and Mission Street to the west. The plaza is generally open, with the BART station escalators in the southeastern portion of the plaza, the BART elevator in the northwestern portion of the plaza, and bus stops adjacent to the plaza on Mission and 16th streets. There are seats and benches to the west and south of the BART escalator railing, and there are trees along areas of the periphery of the plaza.
- **Southwest BART Plaza.** The southwest BART Plaza is bordered on the south by one-story commercial uses, with two- and three-story buildings just beyond, and buildings ranging from one to four stories west of the plaza; 16th Street to the north; and Mission Street to the east. The plaza is generally open, with the BART station escalators in the southwestern portion of the plaza, a public restroom/kiosk near the northwestern corner of the plaza along the sidewalk, and bus stops adjacent to the plaza on Mission and 16th streets. There are seats and benches along the northern and eastern periphery of the plaza; in addition, the steps surrounding the BART escalator railing are used as seating. There are several trees along the periphery of the plaza.

In addition to serving as a transit station/stop, the BART plazas are used as passive open space. Throughout the day, people make passive use of the plazas, standing, and sitting on the benches or on the ground, or leaning on features such as trees or walls. The sections below summarize Planning Department survey data for the plazas, and provide an overview of the typical use in these public open spaces.⁶ The surveys were conducted on May 28, 2014 (weekday), and May 31, 2014 (weekend), from approximately 8:00 a.m. through 5:00 p.m., and provide the number of people at three general locations in each plaza: the transit stop on 16th Street, the transit stop on Mission Street, and the remainder of the plaza areas. The survey does not account for people passing through the plaza to enter the BART Station.⁷ In each of these areas, the surveys assessed how people used the space: either standing; sitting formally, in designated seating areas (i.e., seats

⁶ The Planning Department is leading a community-based planning effort to develop the Mission Public Life Plan. The Mission Public Life Plan looks at how Mission Street is used between its intersections with Van Ness Avenue and Randall Street, and explores ideas that can express the needs and identity of its users. As part of the development of this overall plan for the Mission Street corridor, Planning Department staff conducted surveys of the use of the BART plazas on Mission Street at 16th and 24th streets on May 28, 2014 (weekday), and May 31, 2014 (weekend), from approximately 8:00 a.m. through 5:00 p.m. More information regarding the Mission Public Life Plan can be found at the Planning Department web page for the plan, available online at: http://www.sf-planning.org/ftp/files/Citywide/mission_street_public_life_plan/Mission_PLP_Final_web.pdf, and accessed October 22, 2015.

⁷ During the 2015 BART fiscal year, 12,989 riders exited the 16th Street Mission BART Station on an average weekday. BART, 2015. BART Fiscal Year Weekday Average Exits By Station. Available online at: bart.gov/about/reports/ridership. Accessed October 22, 2015.



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or benches); and sitting informally (e.g., sitting or leaning on something other than a bench or seat, or sitting on the ground). The survey data are provided in Exhibit B.

Based on the Planning Department survey, the majority of the use of the BART plazas generally occurs in the open plaza areas, not at the transit stops (labeled as rest of plaza in Exhibit B, Tables 1 and 2). During weekdays, the use of the plazas generally peaks during the late morning/early afternoon (11:00 a.m. through 2:00 p.m.), with use increasing again by late afternoon (4:00 p.m. through 5:00 p.m.). During weekends, the use of the northeast BART Plaza generally increases throughout the afternoon, and peaks in the late afternoon (4:00 p.m. through 5:00 p.m.), while use of the southwest BART Plaza remains relatively constant throughout the day.

The transit stops adjacent to the BART plazas generally experience peak use during weekday morning hours (8:00 a.m. through 12:00 p.m.); use of the transit stops on Mission Street also increases during weekday late afternoons (4:00 p.m. through 5:00 p.m.). Peak use of transit stops on weekends is generally mid-day from 11:00 a.m. through 2:00 p.m., with increased levels of use also in the late afternoon (3:00 p.m. through 5:00 p.m.).

4. METHODOLOGY FOR ANALYSIS

CADP prepared a shadow analysis to quantify the amount of net new shadow that would be cast by the Proposed Project on the Marshall Elementary School playground, and on the two public plazas at the 16th Street Mission BART Station. The analysis was conducted based on a solar year, to provide a sample of representative sun angles throughout the entire calendar year. The solar year is from June 21 through December 20. The sun angles during the other portions of the calendar year, or December 21 through June 20, mirror the solar year sun angles. Remaining consistent with the weekly sun angle sample set, the dates above represent the equinox and solstice dates originally defined by the City Planning methodology in 1989. Because the angles are mirrored, an analysis of the other portions of the calendar year is not conducted; instead, a multiplier is used to put the sample results into calendar year units. Using a multiplier does not change the percentages of net new shadow. Where a particular date is identified in this report, the mirror date is also noted. For purposes of the analysis, time was measured in decimal hours at 15-minute intervals from sunrise plus 1 hour to sunset minus 1 hour.

5. FINDINGS

For each of the affected properties, the findings are summarized in terms of the sun/shading of the properties on December 20, June 21, and September 20. In addition, the day with the maximum net new shadow cast by the Proposed Project is described for the time when the net new shadow from the Proposed Project (1) would be at its largest size by area; and (2) would result in the overall greatest shadow impact in terms of size and duration (i.e., the maximum net new shadow as measured in sfh).

For the purposes of the quantitative shadow analysis, shadow impacts are calculated based on sfh recorded. Graphical depictions of the shadows for the dates of December 20, June 21, and September 20 are provided in Exhibit C, and tables showing the quantitative shadow results for each of the affected properties described above are included in Exhibit D.

Marshall Elementary School

Existing Shadow

Marshall Elementary School has two outdoor areas: the playground and the outdoor learning area. These two areas are distinct spaces; the TAAS for each of them is summarized separately below.

The TAAS for the Marshall Elementary School playground is approximately 54,615,706 sfh, as shown in Table 1 below. Under existing conditions, the playground is shaded approximately 22 percent of the time, and has an existing shadow load of approximately 12,061,131 sfh. The existing shadow on the playground is caused primarily by the existing one- to four-story buildings to the east and west of the playground.



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Table 1. Shadow Load on Marshall Elementary School				
	Available Sunlight	Existing Shadow Load	Net New Shadow Load from Project	Total Shadow Load with Project
Playground				
Square-foot-hours	54,615,706	12,061,131	11,785,129	23,846,259
Percent	100	22.08	21.57	43.66
Outdoor Learning Area				
Square-foot-hours	9,592,307	6,022,990	17,286	6,040,276
Percent	100	62.79	0.18	62.97

Note: Square-foot-hours rounded to the nearest whole number.

In addition, the TAAS for the Marshall Elementary School outdoor learning area is approximately 9,592,307 sfh, as shown in Table 1. Under existing conditions, the outdoor learning area is shaded approximately 62.79 percent of the time, and has an existing shadow load of approximately 6,022,990 sfh. The existing shadow on the outdoor learning area is caused by the school building as well as the existing four- to five-story buildings to the west of the outdoor learning area.

During the winter (i.e., December), the playground is completely shaded by existing buildings at 8:00 a.m. (sunrise plus 1 hour). From approximately 9:00 a.m. until approximately 1:00 p.m., more than 80 percent of the playground is in sunlight, including approximately 80 percent of the soccer field, all of the athletic courts, and the jungle gym areas (Exhibit C, pages 31 through 35). After 1:00 p.m. shadows from existing buildings to the west of the school and from the existing trailer at the southwestern corner of the playground begin to cover the playground (Exhibit C, page 36). By 3:00 p.m., slightly less than half of the northwestern side of the playground is shaded, including the soccer field and jungle gym areas (Exhibit C, page 37). By 4:00 p.m. (sunset minus 1 hour), the playground is almost entirely shaded (Exhibit C, page 38).

In addition, the outdoor learning area is completely shaded by existing buildings until after 10:00 a.m. By just after 11:00 a.m., the outdoor learning area is completely sunny until after 1:00 p.m., when the existing buildings to the west begin to cast a shadow on the outdoor learning area. The outdoor learning area is completely shadowed by existing buildings by 2:00 p.m. (Exhibit C, pages 35 through 36).

As the season transitions from winter to summer, the playground and outdoor learning area experience less shadow from existing buildings throughout the day.

In summer (i.e., June), the playground is largely shaded at 6:00 a.m. (sunrise plus 1 hour) (Exhibit C, page 2). From 8:00 a.m. through approximately 4:00 p.m., the playground is more than 90 percent sunny (Exhibit C, pages 4 through 12). From 4:00 p.m. through 6:00 p.m., the shadows from existing buildings to the west and from the temporary trailer on the playground begin to cover the playground's western edge, primarily in the area of the soccer field (Exhibit C, pages 12 through 14). By 7:00 p.m., the playground is largely shaded (Exhibit C, page 15).

The outdoor learning area is completely shaded by the existing school building to the east until 10:00 a.m. The shadow recedes, and by 11:00 a.m. the outdoor learning area is largely sunny (Exhibit C, pages 4 through 7). The existing buildings to the west start to cast a shadow on the outdoor learning area after 3:00 p.m., and by 5:00 p.m. the outdoor learning area is fully shadowed by the existing buildings to the west (Exhibit C, pages 11 through 13).

As the seasons transition from summer to autumn, the playground experiences more morning shadow over time as a result of the existing buildings. The outdoor learning area is completely shaded in the morning in both summer and autumn, although it becomes sunny earlier in the summer (11:00 a.m.) than in the autumn (noon). In both summer and autumn, the playground would be largely sunny from approximately 10:00 a.m. to 2:00 p.m., although the playground would experience slightly more shadow as the season



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transitions to autumn. Then from 2:00 p.m. until sunset, the shadow on the playground and outdoor learning area from existing buildings increases in size as the season transitions to autumn.

In autumn (i.e., September), the playground is mostly shaded at 8:00 a.m., except for the southwestern corner of the soccer field (Exhibit C, page 18). By approximately 9:00 a.m., the playground, including all play areas, is largely sunny and remains so until approximately 3:00 p.m. (Exhibit C, pages 19 through 25). At this time, the shadows from the existing buildings to the west and from the temporary trailer on the playground start to encroach on the playground from west to east, eventually reaching the eastern edge of the playground along Capp Street (Exhibit C, pages 26 and 27). By 6:00 p.m., the playground is almost entirely shaded by the existing buildings to the west (Exhibit C, page 28).

The outdoor learning area is completely shaded by the existing school building to the east until after 10:00 a.m., when the shadow recedes; by noon, the outdoor learning area is almost entirely sunny (Exhibit C, pages 18 through 22). The existing buildings to the west start to cast a shadow on the outdoor learning area around 3:00 p.m., and by 4:00 p.m. the outdoor learning area is fully shadowed by the existing buildings to the west (Exhibit C, pages 25 through 26).

As the season transitions from autumn to winter, the playground experiences more shadow from existing buildings throughout the day. As the season transitions to winter, the outdoor learning area becomes sunny slightly earlier, but also becomes shaded earlier in the day.

Proposed Project Shadow

The Proposed Project would reduce the annual available sunlight on the Marshall Elementary School playground by 21.57 percent (as a percentage of TAAS). This is an 11,785,129-sfh reduction of sunlight on an annual basis, resulting in a total shadow load on the playground of 23,846,259 sfh. The Proposed Project would result in a total shadow load on the playground of 43.66 percent. In addition, the Proposed Project would reduce the annual available sunlight on the Marshall Elementary School outdoor learning area by 0.18 percent (as a percentage of TAAS). This is a 17,286-sfh reduction of sunlight, resulting in a total shadow load on the outdoor learning area of 6,040,276 sfh. The Proposed Project would result in a total shadow load on the outdoor learning area of 62.97 percent. These findings are presented in Table 1.

During the winter (i.e., December 20), the Project would cast net new shadow on the southwestern portion of the playground (occupied partially by the new soccer field and partially by the temporary trailer used as the school's library) in the early morning, by approximately 8:30 a.m. (Exhibit C, page 31). Some existing shadow from the trailer will already occur in that area at that time. The Proposed Project's net new shadow would increase in coverage of the playground throughout the morning, moving west to east towards Capp Street; and by 12:00 p.m., most of the playground would be shadowed by net new shadow from the Project (Exhibit C, pages 32 through 34). The net new shadow created by the Project would start to diminish in the afternoon as it is replaced by existing shadows from the buildings to the west; by approximately 3:00 p.m. (Exhibit C, page 37), the playground would be about half shadowed by net new shadow from the Project.

In addition, during the winter, the proposed project would cast new shadow on the outdoor learning area from approximately 12:15 through 2:00 p.m. (Exhibit C, pages 35-36). On December 20, net new shadow from the Project would shadow approximately 18 percent (459 square feet), the southern portion, of the school's outdoor learning area, at 12:45 p.m. By 2:00 p.m., the entire shadow cast over the outdoor learning area would be the same with or without the Project, due to the existing buildings to the west of the outdoor learning area (Exhibit C, page 36).

Therefore, during the winter, the Proposed Project would increase shading on the playground in the morning to the extent that about half of the playground would be shaded around 9:00 a.m., whereas it is largely sunny under existing conditions at that time; shadows would increase throughout the morning due to the Proposed Project, whereas the playground is sunny during the middle of the day under existing conditions; and from 2:00 p.m. onward, the playground would be almost completely shaded, whereas it is



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partially shaded under existing conditions until about 4:00 p.m. On December 20, the largest shadow cast by the Proposed Project on the playground would occur at 2:15 p.m., covering approximately 10,826 square feet, or approximately 74 percent of the overall playground surface area. In addition, the outdoor learning area, which is partially to completely sunny from about 11:00 a.m. to after 1:00 p.m. under existing conditions, would experience increased shading along its southern portion around 1:00 p.m.

As described above, the playground is used throughout the day, from 8:15 a.m. when the playground opens until 6:00 p.m., when the After School Program ends. The playground is used during recess and lunch periods (generally from 10:15 a.m. through 1:00 p.m.) as well as during physical education classes and the After School Program. The outdoor learning area is typically in use from 9:00 a.m. through 5:00 p.m.

As the season transitions from winter to summer, the Proposed Project would cast substantially less shadow on both the playground and the outdoor learning area, so that by summer minimal shadow would be cast on the playground by the Proposed Project, and no shadow from the Proposed Project would be cast on the outdoor learning area.

In summer (i.e., June 21), the Proposed Project would not cast any shadow on the playground from sunrise until approximately 10:00 a.m. (Exhibit C, pages 2 through 6). Starting at 10:00 a.m., the Project would cast minimal net new shadow on the playground's southern boundary in the morning, including a very small southern section of the soccer field, but not the court areas (Exhibit C, page 6). The minimal net new shadow would continue along the southern boundary throughout the day; by 5:00 p.m., the Proposed Project would not cast any net new shadow on the playground (Exhibit C, pages 7 through 13). Shadows cast on the playground after 5:00 p.m. would be due entirely to existing buildings (Exhibit C, pages 14 through 16). The Project would not cast shadows on the outdoor learning area during this time of the year. On June 21, the largest shadow cast by the Proposed Project on the playground would occur at 1:15 p.m., covering approximately 1,095 square feet, or approximately 7 percent of the overall playground surface area.

Therefore, in summer, from 8:00 a.m. through approximately 4:00 p.m., the playground would remain largely sunny, similar to existing conditions, with a minor amount of shading along its southern edge due to the Proposed Project. Similar to existing conditions, from 4:00 p.m. through 6:00 p.m., the shadows from existing buildings would begin to cover the playground until 7:00 p.m., when the playground would be largely shaded. In summer, school is in session until mid-July. There is a month-long break until mid-August, during which time there has in the past been a Summer Program that includes activities in the playground from 8:15 a.m. through 3:15 p.m.

As the season transitions from summer to autumn, the playground would experience more net new shadow from the Proposed Project throughout the day. However, the Proposed Project would not cast net new shadow on the outdoor learning area during the summer or autumn.

During autumn (i.e., September 20), the playground would experience a small amount of net new shadow due to the Proposed Project—generally along its southern portion, in the southern area of the soccer field, and in portions of the four-square patterns. Starting at 8:00 a.m., the Proposed Project would start casting a minimal shadow on the playground (Exhibit C, page 18). The net new shadow caused by the Proposed Project would somewhat increase throughout the day along the southern portion of the playground, peaking at approximately 4:15 p.m. (Exhibit C, pages 19 through 25). At that time, the net new shadow would move east, but the southern portion of the playground would continue to be shadowed due to existing buildings to the west. By late afternoon at 6:00 p.m., a small portion of the playground along the southern boundary would be shadowed by net new shadow from the Proposed Project (Exhibit C, page 28); the rest of the playground would be shadowed due to existing buildings to the west. The Project would not cast shadows on the outdoor learning area during this time of the year. On September 20, the largest shadow cast by the Proposed Project on the playground would occur at 4:15 p.m., covering approximately 4,524 square feet, or approximately 31 percent of the overall playground surface area.



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Therefore, in autumn, the playground would be largely sunny by approximately 9:00 a.m.; and would remain sunny until approximately 3:00 p.m., with some increased shading along its southern boundary due to the Proposed Project. From 3:00 p.m. onward, the shadows from the existing buildings to the west, the temporary trailer on the playground, and the Proposed Project would encroach on the playground. By 6:00 p.m., the playground would be almost entirely shaded by the existing buildings to the west—similar to existing conditions. As described above, the playground and outdoor learning area are generally used throughout the day.

As the season transitions from autumn to winter, the playground would experience more net new shadow from the Proposed Project throughout the day. The outdoor learning area would begin to experience some net new shadow during the early afternoon.

Impacts on Maximum Shadow Day

The maximum net new shadow on the school playground from the Project would occur on December 20. On December 20, the Proposed Project would cast net new shadow on the playground from approximately 8:30 a.m. through 3:54 p.m. On that day, the new shadow load on the playground would be 66,622 sfh over the course of the day. The largest net new shadow by area would also occur on December 20 at 2:15 p.m. At that time, on that day, the largest new shadow cast by the Proposed Project would be 10,826 square feet in size. A graphical depiction is provided below in Figure 2.

The maximum net new shadow from the Project on the outdoor learning area would also occur on December 20. On December 20, the Proposed Project would cast net new shadow on the outdoor learning area from approximately 12:15 p.m. through 2:00 p.m. On that day, the shadow load on the outdoor learning area would be 467 sfh over the course of the day. The largest net new shadow by area would also occur on December 20 at 12:45 p.m. At that time, on that day, the largest new shadow cast by the Proposed Project would be 459 square feet in size. A graphical depiction is provided below in Figure 3.

16th Street Mission BART Station Northeast Plaza (Area A)

Existing Shadow

As shown in Table 2, the TAAS for the northeast BART Plaza at the 16th Street Mission BART Station (Area A) is approximately 21,663,099 sfh. Under existing conditions, the northeast BART Plaza is shaded 24.14 percent of the time, and has an existing shadow load of 5,229,783 sfh. The existing shadow on the northeast BART Plaza is being caused by the existing three- to five-story buildings to the south of the plaza, across 16th Street; and by the existing buildings of one story or one story plus-mezzanine east of the northeast BART Plaza, on the Project site.

Table 2. Shadow Load on 16th Street BART Station – Northeast Plaza (Area A)				
	Available Sunlight	Existing Shadow Load	Net New Shadow Load from Project	Total Shadow Load with Project
Square-foot-hours	21,663,099	5,229,783	1,685,083	6,914,865
Percent	100	24.14	7.78	31.92

Note: Square-foot-hours rounded to the nearest whole number.

During the winter (i.e., December 20), the northeast BART Plaza is fully shaded by the existing buildings to the south, across 16th Street, and by the current structure on the corner of Capp and 16th streets, until approximately 9:00 a.m. (Exhibit C, pages 30 and 31). The existing shadow decreases after 9:00 a.m., and by 11:00 a.m., a majority of the northeast BART Plaza area is in the sun and remains sunny until 4:00 p.m. (sunset minus 1 hour) (Exhibit C, pages 31 through 39). By 4:00 p.m., shadow from existing buildings to the southwest, across Mission Street from the Project site, begin to cover the plaza.

As the season transitions from winter to summer, the northeast BART Plaza experiences less shadow from existing buildings throughout the day.



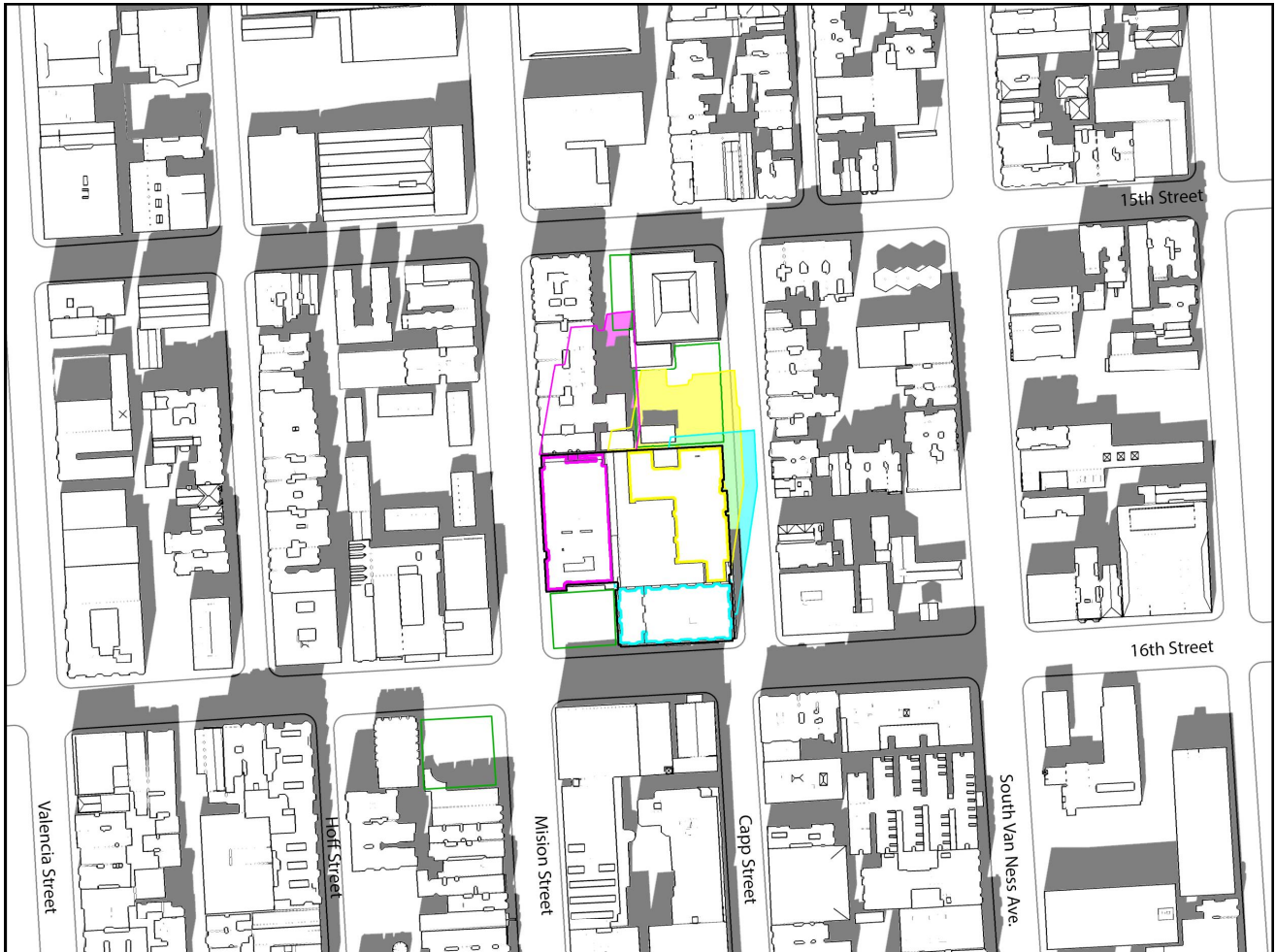
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Figure 2. Largest net new shadow by project components on Marshall Elementary School Playground.



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1979 Mission Street
December 20 12:45 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows



Figure 3. Largest net new shadow by Project components on Marshall Elementary School Outdoor Learning Area.



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In summer (i.e., June 21) at 7:00 a.m., the northeast BART Plaza is fully shaded by an existing three-story building at 2001 – 2007 Mission Street (Assessors Block 3570, Lot 28) to the east of the Project site (Exhibit C, page 3). The existing shadow decreases until around 10:00 a.m., when the plaza is largely sunny (Exhibit C, page 6). By 1:00 p.m., the entire plaza is in the sun (Exhibit C, page 9). Shadows from the four-story building on the corner at 3000 16th Street (Assessors Block 3554, Lot 007) and the two story building to the northwest of the Plaza at 1968 – 1984 Mission Street (Lot 006), directly across Mission Street from the Project site, start to shade the northeast BART Plaza around 6:00 p.m., and by 8:00 p.m. (sunset minus 1 hour), most of the plaza is in the shade (Exhibit C, pages 14 through 16).

As the season transitions from summer to autumn, the northeast BART Plaza experiences more shadow from existing buildings throughout the day.

In autumn (i.e., September 20) at 8:00 a.m., a majority of the plaza is shaded due to the existing two-story buildings on the Project site, and to those that border the northern and eastern boundaries of the northeast BART Plaza (Exhibit C, page 18). Throughout the morning, the shadow decreases, and by 12:00 p.m. the majority of the plaza is in the sun (Exhibit C, page 22). Shadows from existing buildings to the west, across Mission Street from the Project site, start to shade the plaza around 5:00 p.m., and by 6:00 p.m. a majority of the northeast BART Plaza is shadowed (Exhibit C, pages 27 and 28).

As the season transitions from autumn to winter, the northeast BART Plaza experiences more shadow from existing buildings throughout the day.

Proposed Project Shadow

The Proposed Project would reduce the annual available sunlight on the northeast BART Plaza at the 16th Street Mission BART Station by 7.78 percent (as a percentage of TAAS). This is a 1,685,083-sfh reduction of sunlight, resulting in a total shadow load on the station's plaza of 6,914,865 sfh. The Proposed Project would result in a total shadow load on the station's plaza of 31.92 percent. These findings are presented in Table 2.

During the winter (i.e., December 20), the northeast BART Plaza would only experience a small square footage of net new shadow from the Proposed Project from 9:45 a.m. through 12:00 p.m. On December 20, the largest shadow cast by the Proposed Project on the northeast BART Plaza would occur at 11:30 a.m., covering approximately 135 square feet, or approximately 2 percent of the overall northeast BART Plaza area. The rest of the day the northeast BART Plaza would not experience any net new shadow from the Proposed Project (Exhibit C, pages 30 through 38). Therefore, during the winter, the northeast BART Plaza would be largely shaded in the morning until around 11:00 a.m., and would remain sunny until around 4:00 p.m., as described for existing conditions above.

As the season transitions from winter to summer, the northeast BART Plaza would experience more net new shadow over time from the Proposed Project, starting in the late morning and lasting until the early afternoon. In addition, a minor amount of net new shadow would begin to be cast on the plaza by the Proposed Project in the evening as the season transitions to summer.

During the summer (i.e., June 21), net new shadows from the Proposed Project would reach their maximum coverage of the year. The shadows would start to encroach on the western portion of the northeast BART Plaza adjacent to Mission Street around 7:30 a.m. (Exhibit C, page 4). Project shadow would shade the Plaza area not already in shadow from the existing building directly east of the transit stop from 7:30 a.m. to 9:00 a.m. The Project net new shadow would then start to recede eastward, and the Plaza would be in sunlight at 1:00 p.m. All net new shadows from the Project would be gone and the entire northeast BART Plaza would be sunny from 1:00 p.m. until approximately 6:00 p.m. (Exhibit C, page 9 through 14). After 6:00 p.m., a minor amount of shadow would be cast on the plaza by the Proposed Project (Exhibit C, pages 14 through 16).

Therefore, in summer, the northeast BART Plaza—which under existing conditions is shadowed in the mornings during the summer until approximately 10:00 a.m., and remains sunny for the majority of the day until around 6:00 p.m.—would experience the highest Project net new shadow during the summer morning hour from 9:00 a.m. to 10:00 a.m. On June 21, the largest shadow cast by the Proposed Project on the northeast BART Plaza would occur at 9:15 a.m., covering approximately 3,726 square feet, or approximately 64 percent of the overall northeast BART Plaza area. The Project shadow would recede rapidly between



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11:00 a.m. and 12:00 p.m. The northeast BART Plaza is used throughout the day. In addition, peak use of the plaza occurs during weekday late mornings/early afternoons (11:00 a.m. through 2:00 p.m.). Peaks in use of the transit stops adjacent to the BART plaza occur during weekday morning hours (8:00 a.m. through 12:00 p.m.) and weekend mid-day (11:00 a.m. through 2:00 p.m.).

As the season transitions from summer to autumn, net new project shadow on the northeast BART Plaza would decrease over time in the early morning but remains relatively constant in the late morning. The minor amount of shadow cast on the Plaza by the Proposed Project in the evening would disappear by late summer.

In autumn (i.e., September 20), starting around 9:00 a.m., net new shadows due to the Proposed Project would fall on the northwestern portion of the northeast BART Plaza, and move to the northeastern portion of the plaza by 11:00 a.m. (Exhibit C, pages 19 through 21). Net new shadows from the Proposed Project would diminish after this time, shading the northeast BART Plaza until 12:45 p.m., at which point no further net new shadow would occur due to the Proposed Project (Exhibit C, pages 22 through 29).

Therefore, in autumn, the northeast BART Plaza would have increased shading in the morning with the Proposed Project, and by 12:00 p.m., the majority of the plaza would be in the sun—similar to existing conditions. On September 20, the largest shadow cast by the Proposed Project on the northeast BART Plaza would occur at 9:45 a.m., covering approximately 1,677 square feet, or approximately 29 percent of the overall northeast BART Plaza area.

The plaza would remain sunny until 5:00 p.m., also similar to existing conditions. As described above, with the increased morning-hour shading in the autumn, peak use of the plaza occurs during weekday late mornings/early afternoons (11:00 a.m. through 2:00 p.m.). Peaks in use of the transit stops adjacent to the BART plaza occur during weekday morning hours (8:00 a.m. through 12:00 p.m.) and weekend mid-day hours (11:00 a.m. through 2:00 p.m.).

As the season transitions from autumn to winter, the northeast BART Plaza would experience less net new shadow from the Proposed Project in the morning. No net new shadows would be cast by the Proposed Project on the northeast BART Plaza by approximately mid-day in either autumn or winter.

Impacts on Maximum Shadow Day

The maximum net new Project shadow at the northeast BART Plaza would occur on June 28. On that day, the northeast BART Plaza would be shadowed during the early morning and late evening. The new shadow load on the northeast BART Plaza due to the Project would be 12,046 sfh. The largest net new shadow by area would occur on June 28 at 9:45 a.m. At that time, on that day, the area of new shadow cast by the Proposed Project on the northeast BART Plaza would occupy most of the plaza, and would be approximately 3,981 square feet. A graphical depiction for June 28 at 9:45 a.m. is provided below in Figure 4.

On June 28, the Project's net new shadow would fall on the northeast BART Plaza during the morning hours, and would overlap with the weekday peak use of the plaza and use of its formal seating (8:00 a.m. through 1:00 p.m.). Net new shadow from the Proposed Project would shadow the sidewalk area along Mission Street and the Mission Street transit stop adjacent to the plaza. This timeframe for net new shadow would overlap with the peak weekday use of the transit stop during the morning hours (i.e., 8:00 a.m. through 12:00 p.m.).

16th Street Mission BART Station Southwest Plaza (Area B)

Existing Shadow

The TAAS for the southwest BART Plaza at the 16th Street Mission BART Station is 32,295,798 sfh. Under existing conditions, the southwest BART Plaza is shaded 31.99 percent of the time, and has an existing shadow load of 10,330,082 sfh. The existing shadow on the southwest BART Plaza is caused by the existing buildings to the south.



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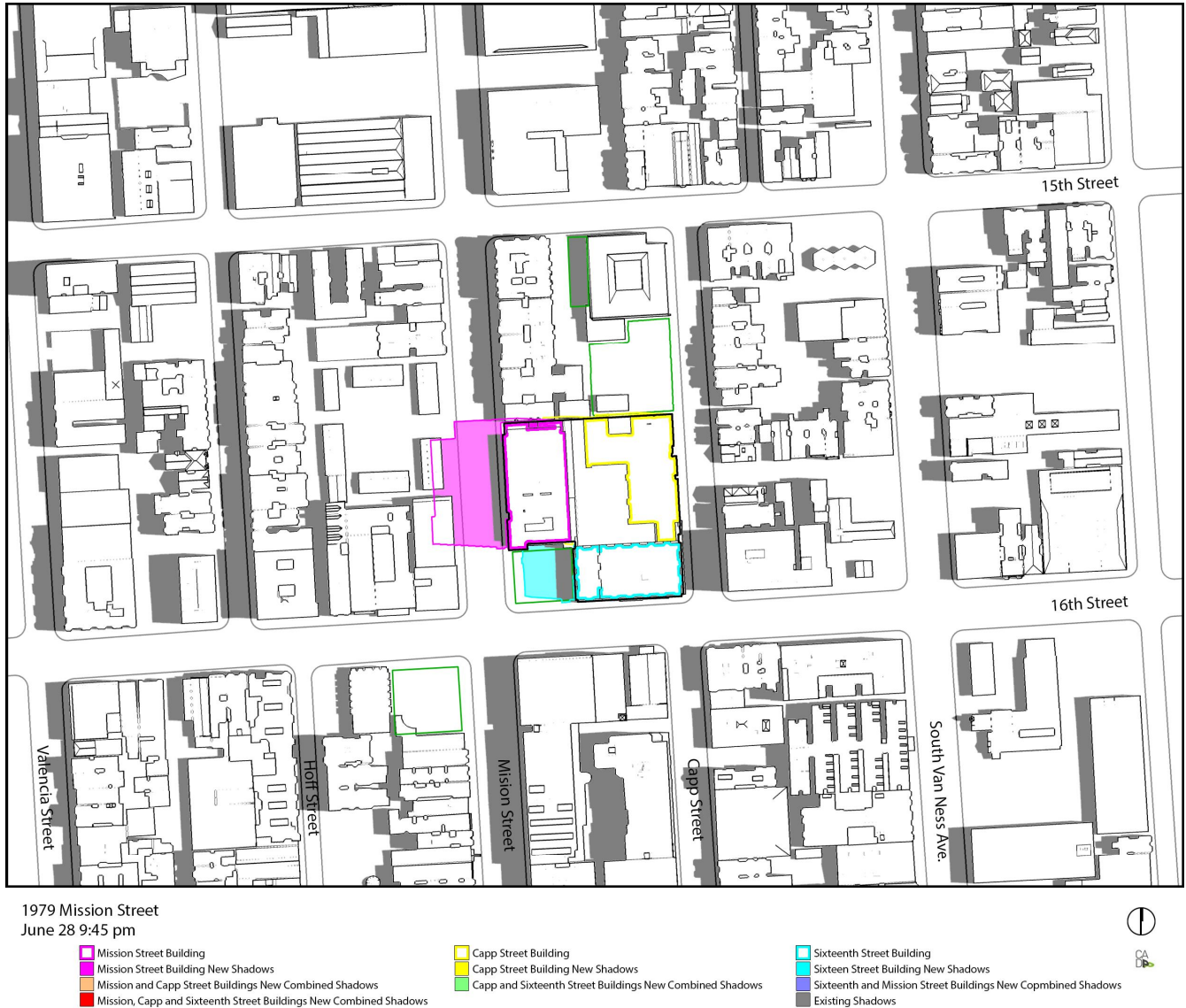


Figure 4. Largest net new shadow by project components on the northeast BART Plaza (Area A).



34 Corte Madera Avenue
Mill Valley, CA 94941

During the winter (i.e., December 20) at 8:00 a.m. (sunrise plus 1 hour), the entire southwest BART Plaza is in the shade due to shadow from existing buildings (2161 16th Street and 2973 16th Street) (Exhibit C, page 30). The existing shadow decreases throughout the morning, but the southern half of the plaza remains mostly shaded by the existing buildings to the south and west until around 3:00 p.m., when the majority of plaza becomes shaded (Exhibit C, pages 31 through 37).

As the season transitions from winter to summer, the southwest BART Plaza experiences decreased shadows from existing buildings throughout the day.

During the summer (i.e., June 21) from 6:00 a.m. (sunrise plus 1 hour) to approximately 9:00 a.m., the southwest BART Plaza is partially shaded by existing buildings to the east (Exhibit C, pages 2 through 5). By 9:00 a.m., the entire plaza is in the sun. Minimal shadows from buildings to the west begin to shade the plaza starting around 3:00 p.m. (Exhibit C, page 11). By 7:00 p.m., majority of the western portion of the plaza is shaded, and it is almost entirely shaded by existing buildings by 8:00 p.m. (Exhibit C, pages 15 and 16).

As the season transitions from summer to autumn, the southwest BART Plaza experiences increased shadows from existing buildings throughout the day.

In autumn (i.e., September 20) at 8:00 a.m., the plaza is entirely in shade due to the existing buildings (Exhibit C, page 18). By 10:00 a.m. the plaza is entirely sunny, with the exception of a small portion of the southern end of the plaza, which is shaded by existing buildings to the south (Exhibit C, pages 19 and 20). Shadows from the buildings to the west start to encroach on the plaza around 2:00 p.m. (Exhibit C, page 24). By 5:00 p.m., the plaza is approximately half shaded; by 6:00 p.m., the plaza is fully shaded (Exhibit C, pages 27 and 28).

As the season transitions from autumn to winter, the southwest BART Plaza experiences increased shadows from existing buildings throughout the day.

Proposed Project Shadow

The Proposed Project would reduce the annual available sunlight on the southwest BART Plaza at the 16th Street Mission BART Station by 0.19 percent. This is a 62,330-sfh reduction of sunlight, resulting in a total shadow load on the southwest BART Plaza of 10,392,412 sfh. The Proposed Project would result in a total shadow load on the southwest BART Plaza of 32.18 percent. These findings are presented in Table 3.

Table 3. Shadow on 16th Street BART Station – Southwest Plaza (Area B)				
	Available Sunlight	Existing Shadow Load	Net New Shadow Load from Project	Total Shadow Load with Project
Square-foot-hours	32,295,798	10,330,082	62,330	10,392,412
Percent	100	31.99	0.19	32.18

Note: Square-foot-hours rounded to the nearest whole number.

During the winter (i.e., December 20), the southwest BART Plaza would not experience any net new shadows from the Proposed Project as the shadows remain to the north of the Plaza throughout the winter day (Exhibit C, pages 30 through 38). Therefore, as under existing conditions, during the winter the plaza would be entirely shadowed until around 8:00 a.m.; the plaza would be partially shadowed by existing buildings along its southern and western portion throughout the day until around 3:00 p.m.; and a majority of plaza would be shadowed by existing buildings after 3:00 p.m.

As the season transitions from winter to summer, the southwest BART Plaza would begin to experience net new shadow from the Proposed Project for a brief time period early in the morning.



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During the summer (i.e., June 21), the southwest BART Plaza would experience shadows from the Proposed Project in the early morning. Between approximately 6:00 a.m. and 7:00 a.m., the Proposed Project would shadow the northern portion of the plaza (Exhibit C, pages 2 and 3). By 7:15 a.m., there would be no net new shadow from the Project on the southwest BART Plaza (Exhibit C, page 4). Therefore, with the Proposed Project, the southwest BART Plaza would experience increased shading in the early mornings, but would be entirely sunny by 9:00 a.m., similar to existing conditions; it would also continue to remain sunny for the majority of the day until around 7:00 p.m., when it would be largely shaded by shadows from existing buildings, similar to existing conditions. On June 21, the largest shadow cast by the Proposed Project on the southwest BART Plaza would occur at 6:46 a.m., covering approximately 3,810 square feet, or approximately 44 percent of the overall southwest BART Plaza area.

As the season transitions from summer to autumn, the southwest BART Plaza would no longer experience net new shadow from the Proposed Project in the early morning.

In autumn (i.e., September 20), the southwest BART Plaza would not experience any net new shadow from the Proposed Project (Exhibit C, pages 17 through 29). Therefore, as under existing conditions, the plaza would be entirely sunny by 10:00 a.m. during the autumn; would have minor shading along the western and southern portion of the plaza due to existing buildings beginning around 2:00 p.m.; and would be fully shaded by 6:00 p.m. due to shadows from existing buildings. There would be no change in the amount of shadow on the southwest BART plaza due to the Proposed Project at this time of year.

During both autumn and winter, the southwest BART Plaza would experience no net new shadow from the Proposed Project.

Impacts on Maximum Shadow Day

The largest net new shadow or maximum shadow day on the southwest BART Plaza as a result of the Proposed Project would occur on June 21. On that day, the new shadow load on the southwest BART Plaza as a result of the Project would be 1,496 sfh. The largest new shadow by area would also occur on June 21 during the hour after sunrise—and specifically at 6:46 a.m. At that time, on that day, the net new shadow cast by the Proposed Project would be 3,810 square feet. The net new shadow would recede from the plaza over a period of approximately 45 minutes, so that there would be no shadow from the Proposed Project on the plaza after 7:29 a.m. A graphical depiction of the shadow cast over the southwest BART Plaza 1 hour after sunrise is provided below in Figure 5.

On June 21, the Project's net new shadow would fall on the southwest BART Plaza during the morning hours, and would potentially overlap with the early part of the weekday peak use at the 16th Street transit stop adjacent to the plaza.



34 Corte Madera Avenue
Mill Valley, CA 94941



1979 Mission Street
June 21 Sunrise +1 Hour (6:47 am)

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



Figure 5. Largest net new shadow by project components on the southwest BART Plaza (Area B)



34 Corte Madera Avenue
Mill Valley, CA 94941

* * * * *

Please direct questions regarding this report directly to Adam Noble.

Regards,

Adam Noble
President

Enclosures:

- Exhibit A – Marshall Elementary School Schedules
- Exhibit B – Mission Street Public Life Plan Survey Data
- Exhibit C – Shadow Projection Graphics
- Exhibit D – Summaries and Quantitative Results
 - Exhibit D.1A – Marshall Elementary School Playground
 - Exhibit D.1B – Marshall Elementary School Outdoor Learning Area
 - Exhibit D.2 – Northeast BART Plaza (Plaza A)
 - Exhibit D.3 – Southwest BART Plaza (Plaza B)

EXHIBIT A

Marshall Elementary School Schedules

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Marshall Elementary School

Proposed 2014-2015 schedule:

8:15-8:35	Breakfast
8:35-8:40	Intake
8:40-10:15	Instructional Time
10:15-11:15	3 Recess Times
11:30-1:00	3 Lunch/Recess Times
1:00-2:40	Instructional Time
2:40-3:00	Pick-up
2:40-6:00	After School program

Anticipated 2015 Summer Program schedule:

<u>Time</u>	<u>M,T,W,TH</u> <u>Grade pre-k-1</u>	<u>Time</u>	<u>M,T,W,TH</u> <u>Grade 2-3</u>	<u>M,T,W,TH</u> <u>Grade 4-5</u>	<u>Friday</u> <u>Grade K-5</u>
8:00-8:40am	Drop off	8:00-8:40am	Drop off	Drop off	Drop off
8:45-9:00 am	Breakfast	8:45-9:00am	Community Circle	Community Circle	Community Circle
9:05-9:20 am	Community Circle	9:05-9:20am	Breakfast	SPARK	FIELD TRIPS

Source: Marshall Elementary School, 2015. Daily Schedule. Available at: https://marshall-sfusd-ca.school-loop.com/daily_schedule. Accessed October 22, 2015.

<u>Time</u>	<u>Monday</u>	<u>Wednesday</u>		<u>Time</u>	<u>Tuesday</u>	<u>Thursday</u>	<u>Friday</u>
9:25-10:25am	Learning Centers	9:25-9:40am	SPARK	Breakfast		9:25-10:25am	Learning Centers
10:30-10:45am	SPARK	9:45-10:45am	Learning Centers	Learning Centers		10:30-10:45am	SPARK
10:50-11:40am	Creative Arts Workshop	10:50-11:40am	Creative Arts Workshop	Creative Arts Workshop		10:50-11:40am	Creative Arts Workshop
11:45-12:05pm	Lunch pre-k-2 Recreation 3-5	Lunch pre-k-2 Recreation 3-5		11:45-12:05pm	Lunch pre-k-2 Recreation 3-5	Lunch pre-k-2 Recreation 3-5	
12:05-12:25pm	Lunch 3-5 Recreation K-2	Lunch 3-5 Recreation K-2		12:05-12:25pm	Lunch 3-5 Recreation K-2	Lunch 3-5 Recreation K-2	
12:30-12:45pm	Camp Read A Lot!	Camp Read A Lot!		12:30-12:45pm	Camp Read A Lot!	Camp Read A Lot!	
12:50-2:30pm	STEM: Engineering Design Challenges	STEM: Engineering Design Challenges		12:50-1:35 pm	Fun 4 the Brain: Math Games	Fun 4 the Brain: Math Games	
2:30-3:00pm	SPARK and Marshall Chefs 2:30-2:45 – K-2 2:45-3:00 – 3-5	SPARK and Marshall Chefs 2:30-2:45 – K-2 2:45-3:00 – 3-5		1:40-2:10pm	SPARK/Snack 1:40-1:55: – K-2 1:55-2:10 – 3-5	SPARK/Snack 1:40-1:55: – K-2 1:55-2:10 – 3-5	
3:05-3:45pm	Enrichment	Enrichment		2:15-3:30pm	Enrichment	Enrichment	
3:45-4:00pm	Dismissal	Dismissal		3:45-4:00pm	Dismissal	Dismissal	

Source: Marshall Elementary School, 2015. Daily Schedule. Available at: https://marshall-sfusd-ca.schoolloop.com/daily_schedule. Accessed October 22, 2015.

EXHIBIT B

Mission Street Public Life Plan
Survey Data

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Table 1: Weekday BART Plaza

Northeast BART Plaza

	Transit Stop of 16th Street					Transit Stop of Mission Street					Rest of Plaza			
HOURL	PSTN	PSTF	PSTI	TOTAL		PSTN	PSTF	PSTI	TOTAL		PSTN	PSTF	PSTI	TOTAL
8 AM -9 AM	6	3	2	11		7	2	2	11		8	11	3	22
9 AM -10 AM	15	1	2	18		4	4	2	10		9	19	1	29
10 AM -11 AM	10	3	0	13		0	0	0	0		3	16	3	22
11 AM -12 AM	22	4	1	27		13	5	0	18		9	10	17	36
12 AM - 1 PM	0	0	0	0		4	0	0	4		10	13	19	42
1 PM - 2 PM	1	1	1	3		5	0	0	5		10	8	22	40
2 PM - 3 PM	0	0	1	1		6	0	0	6		0	6	11	17
3 PM - 4 PM	0	0	1	1		9	1	0	10		13	9	9	31
4 PM - 5 PM	0	0	0	0		30	3	0	33		9	9	18	36
Grand Total	54	12	8	74		78	15	4	97		71	101	103	275

Southwest BART Plaza

	Transit Stop of 16th Street					Transit Stop of Mission Street					Rest of Plaza			
HOURL	PSTN	PSTF	PSTI	TOTAL		PSTN	PSTF	PSTI	TOTAL		PSTN	PSTF	PSTI	TOTAL
8 AM -9 AM	27	8	2	37		16	5	2	23		9	27	4	40
9 AM -10 AM	29	5	2	36		13	7	2	22		10	33	1	44
10 AM -11 AM	22	7	0	29		18	2	0	20		3	28	5	36
11 AM -12 AM	25	8	1	34		18	7	0	25		16	19	20	55
12 AM - 1 PM	9	1	0	10		18	4	0	22		15	25	19	59
1 PM - 2 PM	13	1	1	15		18	3	0	21		10	9	23	42
2 PM - 3 PM	0	0	1	1		24	2	0	26		5	11	12	28
3 PM - 4 PM	0	0	1	1		20	2	0	22		25	16	10	51
4 PM - 5 PM	0	0	0	0		46	4	0	50		18	13	20	51
Grand Total	125	30	8	163		191	36	4	231		111	181	114	406

Notes:

PSTN Standing

PSTF Sitting Formal – in actual seating

PSTI Sitting informal – i.e. could be leaning on something or on the ground

Source: Dwyer, Debra, 2015. Personal communication to Hannah Young, URS, dated October 19, 2015.

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Table 2: Weekend BART Plaza

Northeast BART Plaza

	Transit Stop of 16th Street					Transit Stop of Mission St					Rest of Plaza			
HOURL	PSTN	PSTF	PSTI	TOTAL		PSTN	PSTF	PSTI	TOTAL		PSTN	PSTF	PSTI	TOTAL
8 AM - 9 AM	0	2	0	2		3	1	0	4		11	2	0	13
9 AM - 10 AM	5	2	0	7		5	2	0	7		18	9	0	27
10 AM - 11 AM	7	2	0	9		7	0	0	7		22	9	0	31
11 AM - 12 AM	11	4	0	15		18	3	1	22		11	13	0	24
12 AM - 1 PM	18	2	0	20		5	1	2	8		22	9	0	31
1 PM - 2 PM	13	2	0	15		2	2	0	4		11	15	0	26
2 PM - 3 PM	7	2	0	9		3	3	0	6		4	30	0	34
3 PM - 4 PM	3	2	0	5		9	3	0	12		7	49	0	56
4 PM - 5 PM	14	6	0	20		13	6	0	19		10	50	0	60
Grand Total	78	24	0	102		65	21	3	89		116	186	0	302

Southwest BART Plaza

	Transit Stop of 16th Street					Transit Stop of Mission St					Rest of Plaza			
HOURL	PSTN	PSTF	PSTI	TOTAL		PSTN	PSTF	PSTI	TOTAL		PSTN	PSTF	PSTI	TOTAL
8 AM - 9 AM	0	2	2	4		0	0	3	3		6	10	0	16
9 AM - 10 AM	0	2	3	5		1	0	7	8		15	12	2	29
10 AM - 11 AM	1	1	5	7		0	0	6	6		9	18	6	33
11 AM - 12 AM	0	2	12	14		2	1	7	10		10	19	4	33
12 AM - 1 PM	3	2	4	9		1	2	12	15		5	14	15	34
1 PM - 2 PM	1	0	3	4		3	3	15	21		8	9	10	27
2 PM - 3 PM	0	1	2	3		0	3	9	12		2	19	4	25
3 PM - 4 PM	-	-	-	-		-	-	-	-		-	-	-	-
4 PM - 5 PM	-	-	-	-		-	-	-	-		-	-	-	-
Grand Total	5	10	31	46		7	9	59	75		55	101	41	197

Notes:

- PSTN Standing
- PSTF Sitting Formal – in actual seating
- PSTI Sitting informal – i.e. could be leaning on something or on the ground
- Indicates no data collected

Source: Dwyer, Debra, 2015. Personal communication to Hannah Young, URS, dated October 19, 2015.

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WEEKDAY TOTAL (8AM-5PM): PEOPLE WATCHING

(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL (8AM-5PM): PEOPLE WATCHING

(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKDAY TOTAL (8AM-5PM): SITTING INFORMAL
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



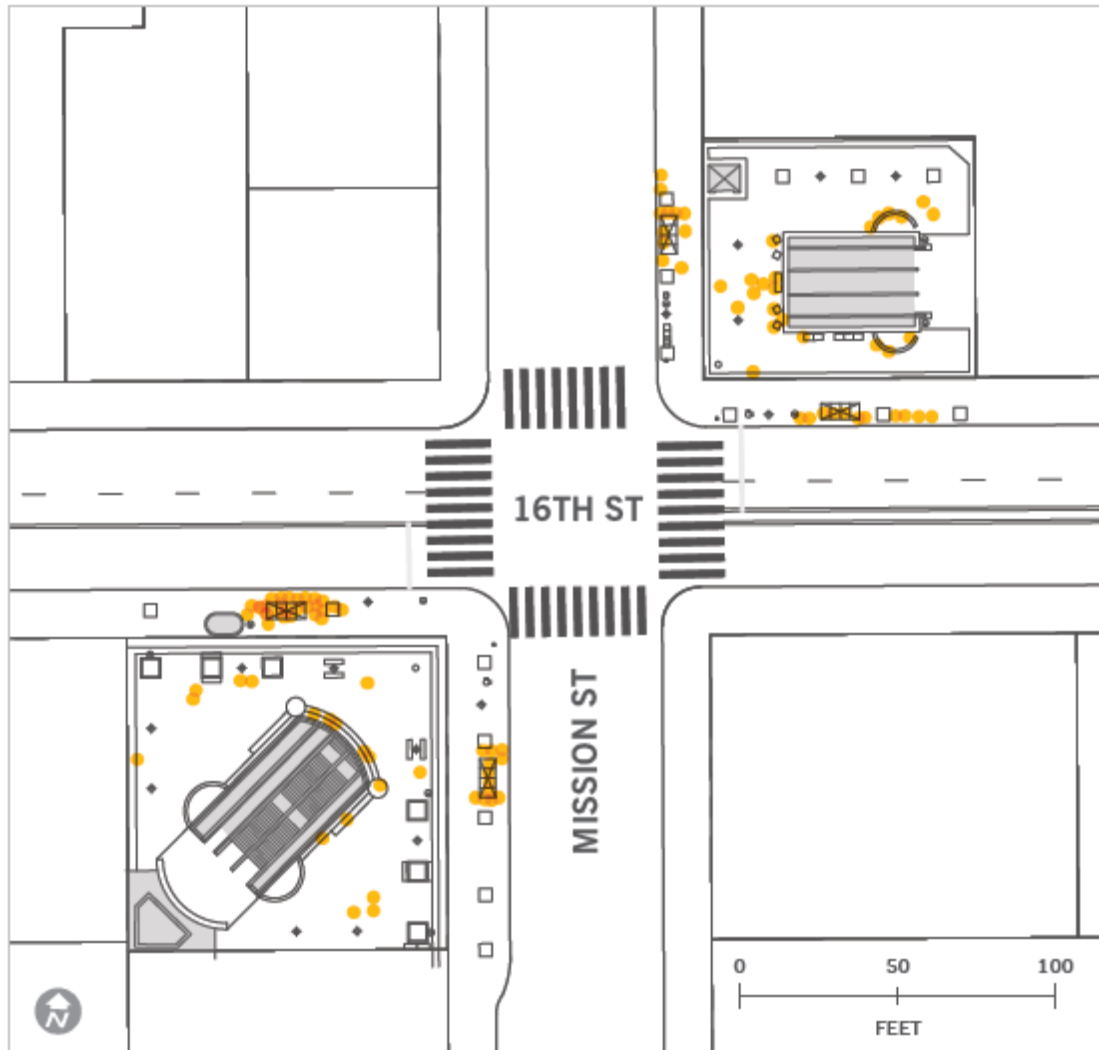
WEEKEND TOTAL (8AM-5PM): SITTING INFORMAL

(ONE COLORED CIRCLE REPRESENTS ONE PERSON)

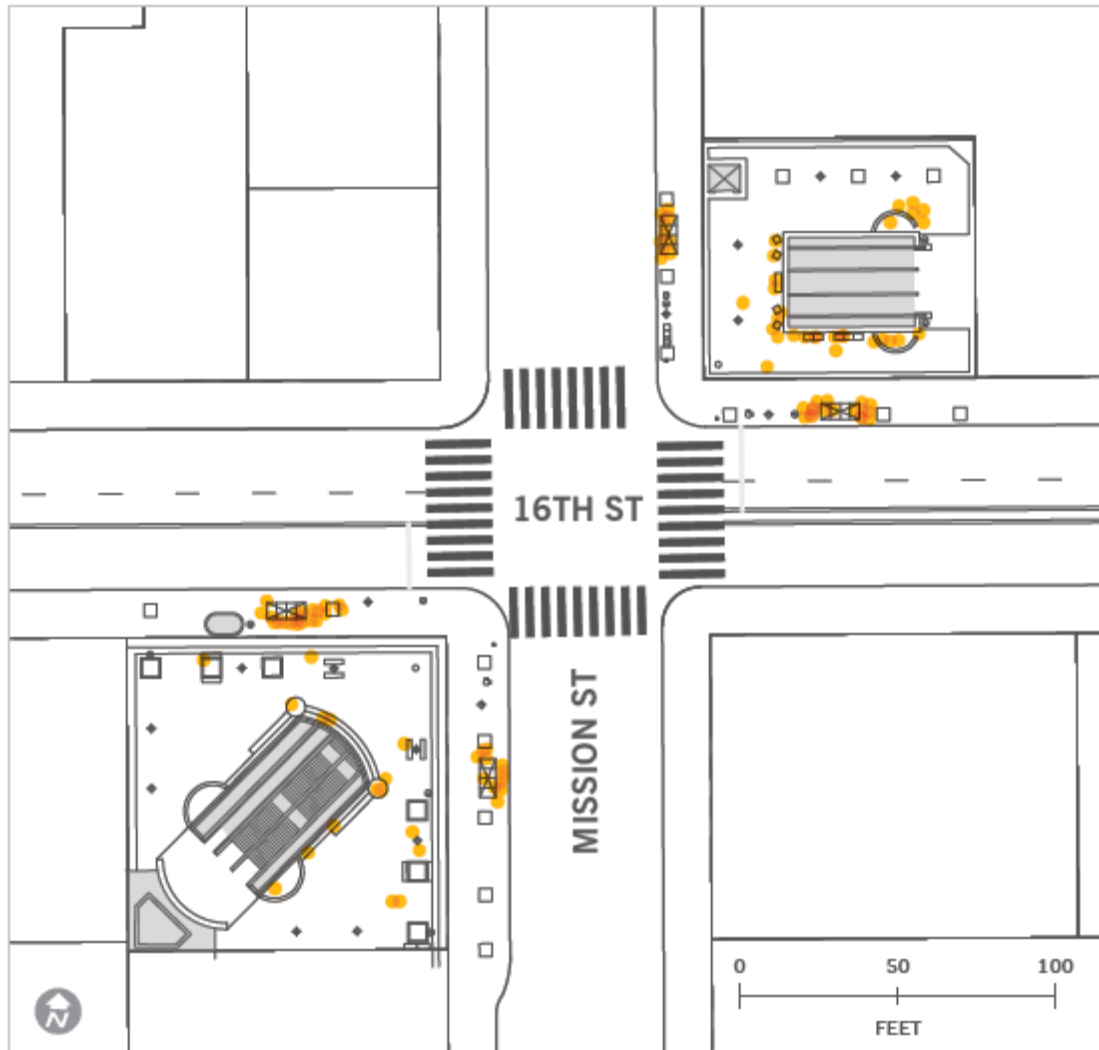


WEEKDAY TOTAL PEOPLE OBSERVED: 8AM

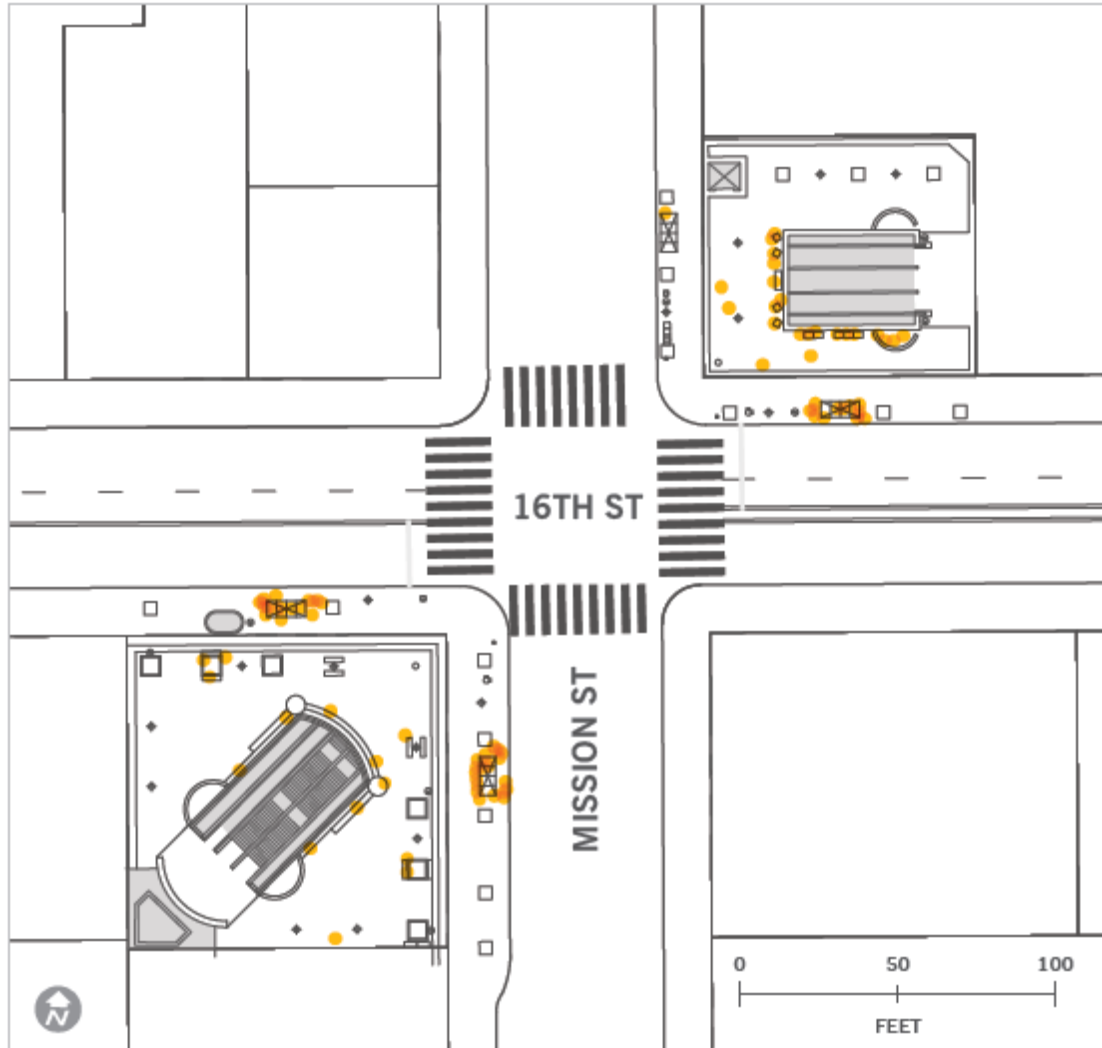
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKDAY TOTAL PEOPLE OBSERVED: 9AM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKDAY TOTAL PEOPLE OBSERVED: 10AM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)

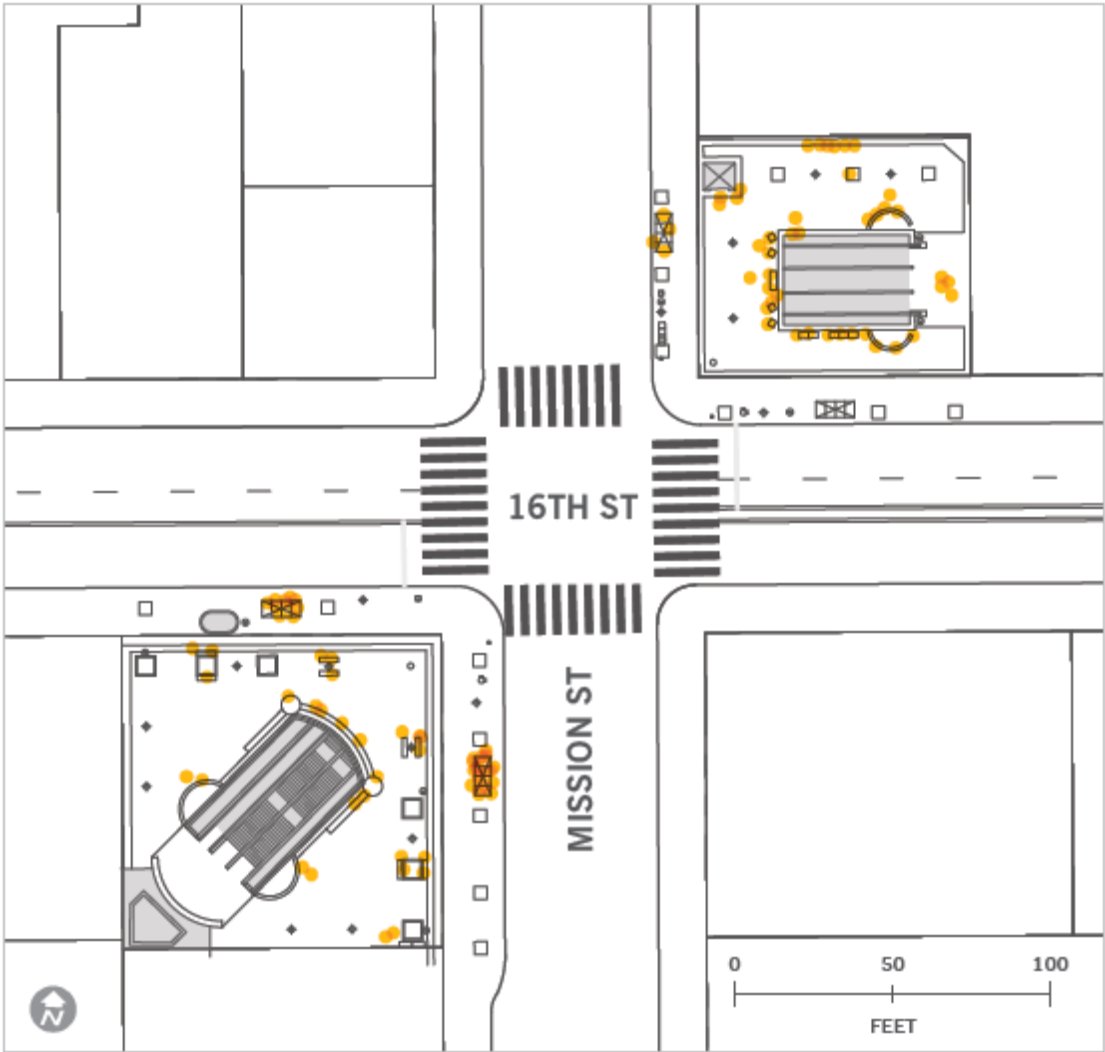


WEEKDAY TOTAL PEOPLE OBSERVED: 11AM

(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKDAY TOTAL PEOPLE OBSERVED: 12PM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)

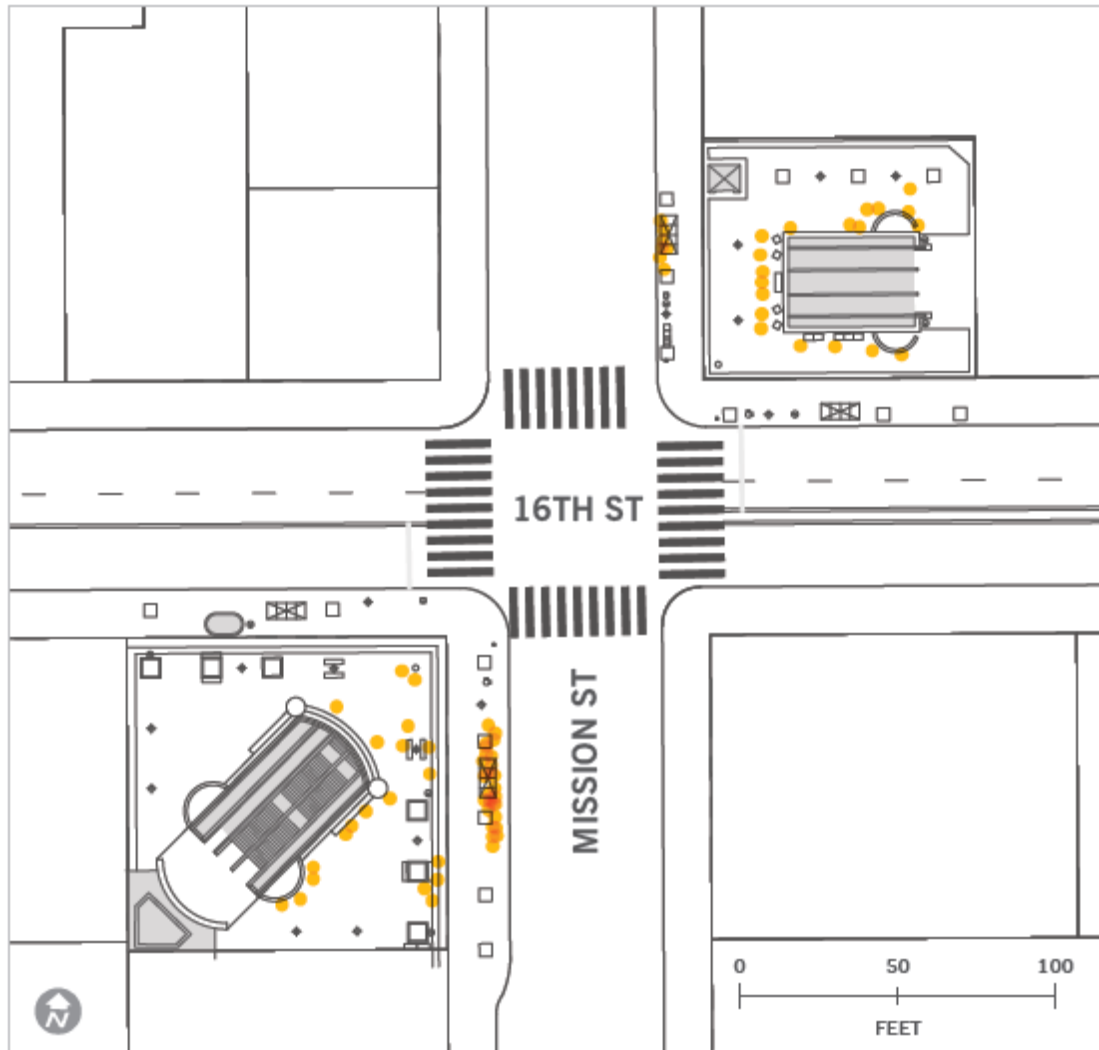


WEEKDAY TOTAL PEOPLE OBSERVED: 1PM

(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



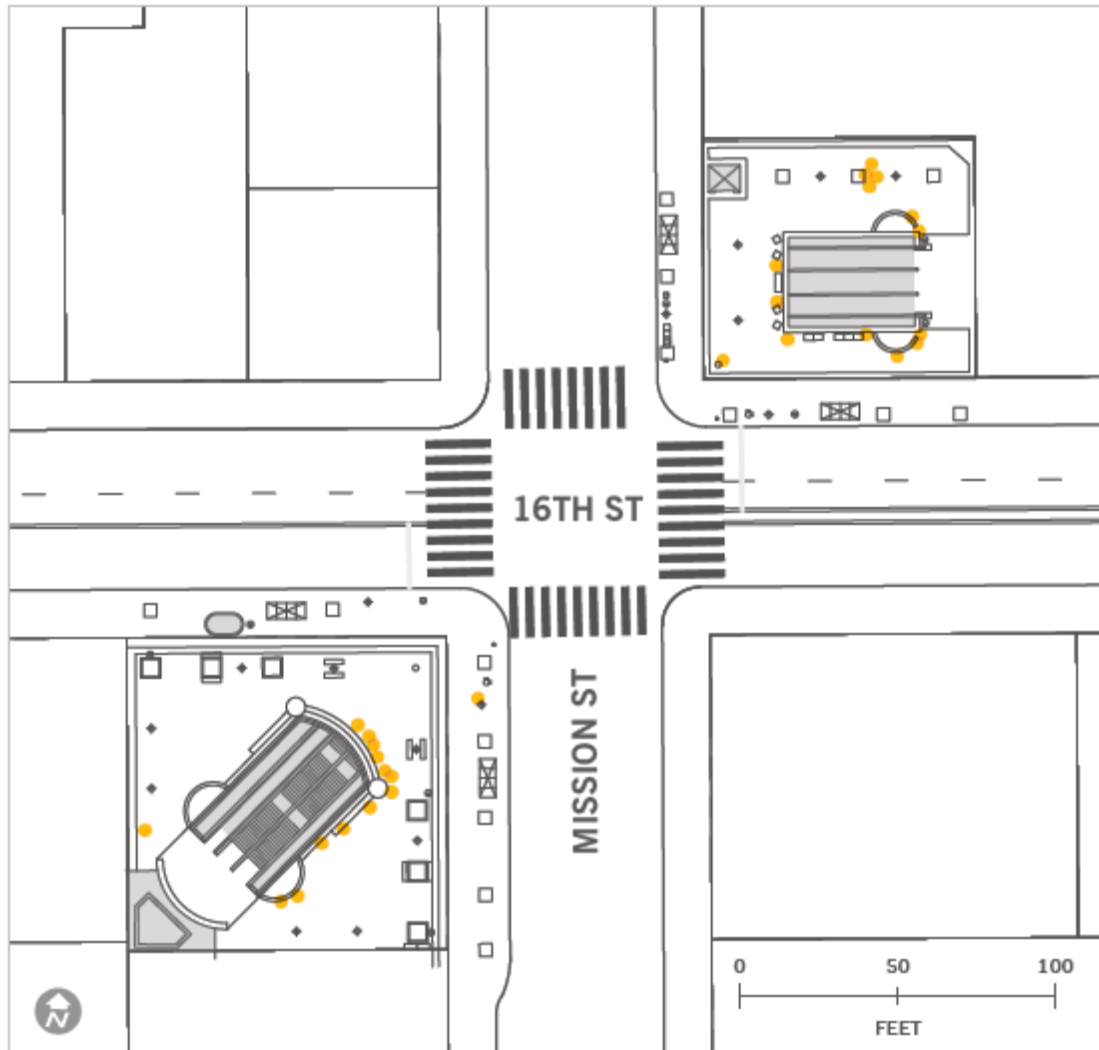
WEEKDAY TOTAL PEOPLE OBSERVED: 2PM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKDAY TOTAL PEOPLE OBSERVED: 3PM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKDAY TOTAL PEOPLE OBSERVED: 4PM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL PEOPLE OBSERVED: 8AM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL PEOPLE OBSERVED: 9AM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL PEOPLE OBSERVED: 10AM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL PEOPLE OBSERVED: 11AM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL PEOPLE OBSERVED: 12PM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL PEOPLE OBSERVED: 1PM

(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL PEOPLE OBSERVED: 2PM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL PEOPLE OBSERVED: 3PM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



WEEKEND TOTAL PEOPLE OBSERVED: 4PM
(ONE COLORED CIRCLE REPRESENTS ONE PERSON)



EXHIBIT C

1979 Mission Street
Shadow Projection Graphics



*Not all combinations are not present in every image

1979 Mission Street Shadow Projections Key



1979 Mission Street
June 21 Sunrise +1 Hour (6:47 am)

- | | | |
|--|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Combined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |



1979 Mission Street
June 21 7:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 8:00 am

- | | | |
|--|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |



1979 Mission Street
June 21 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
June 21 10:00 am

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 11:00 am

- | | | |
|--|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |



1979 Mission Street
June 21 12:00 noon

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 1:00 pm

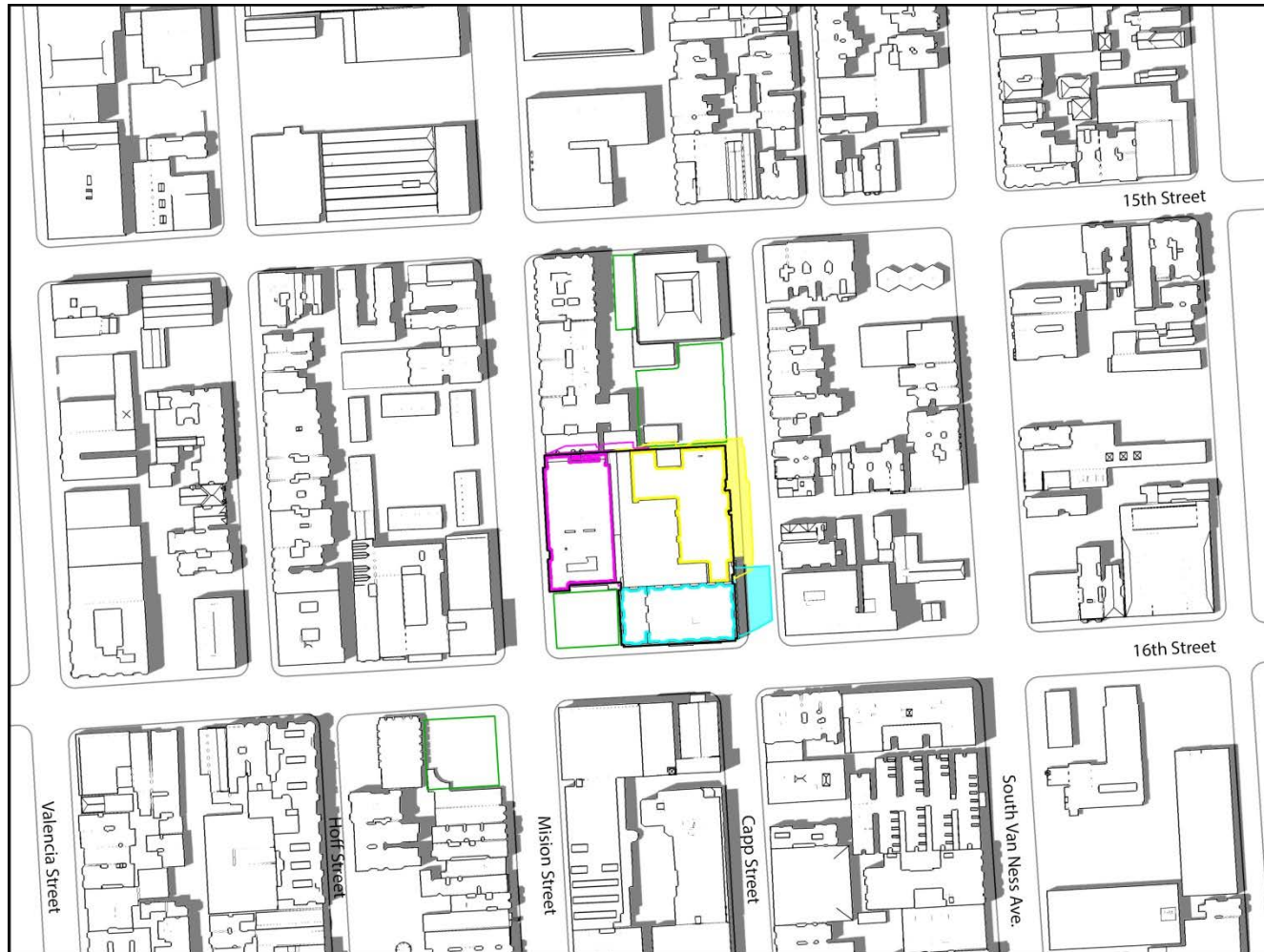
- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
June 21 2:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 3:00 pm

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 4:00 pm

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 5:00 pm

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 6:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 7:00 pm

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 Sunset -1 Hour (7:36 pm)

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 Sunrise +1 Hour (7:57 am)

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 8:00 am

- | | | |
|---|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
September 20 9:00 am

- | | | |
|---|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
September 20 10:00 am

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
September 20 11:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 12:00 noon

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |

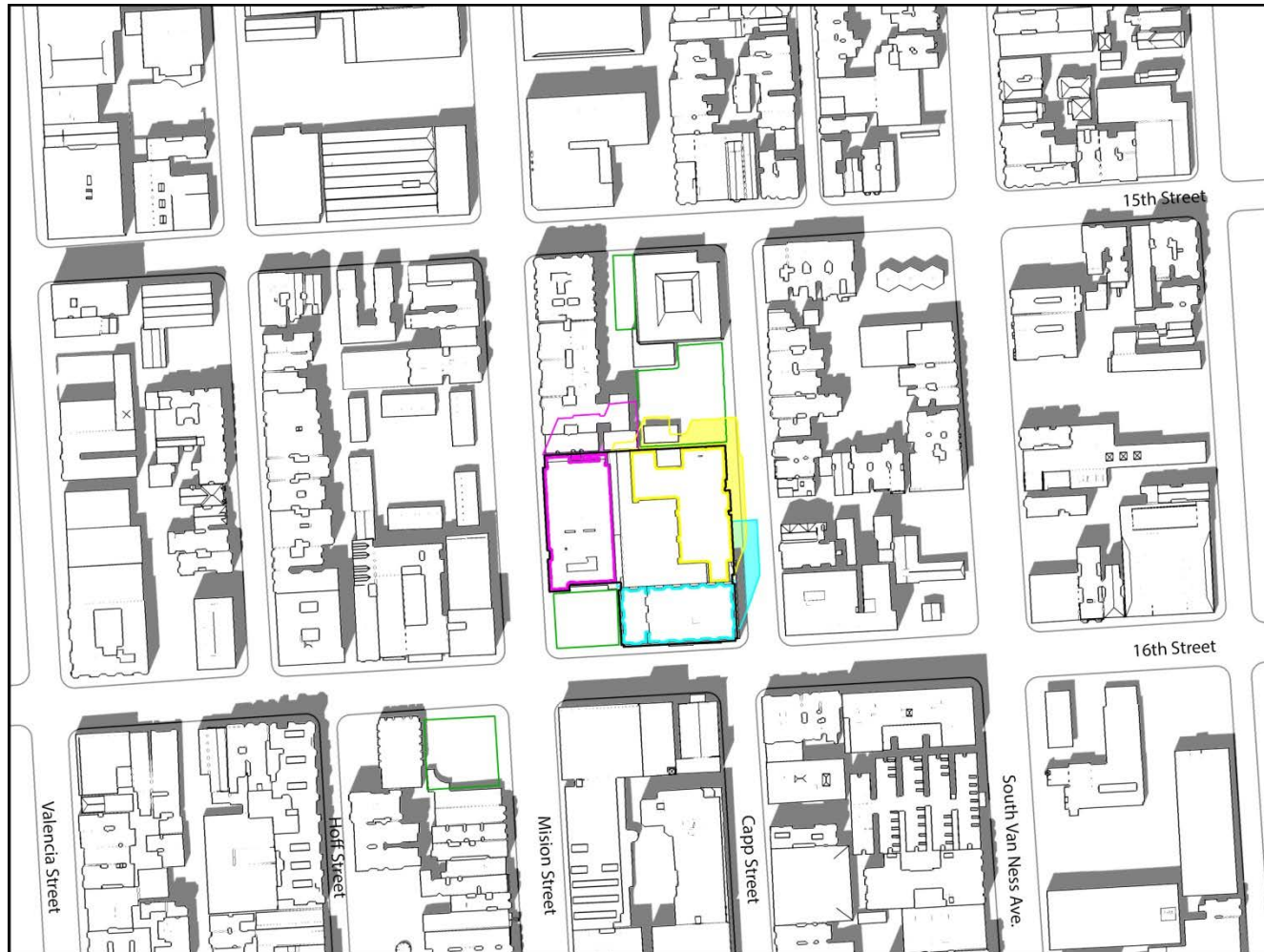




1979 Mission Street
September 20 1:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |

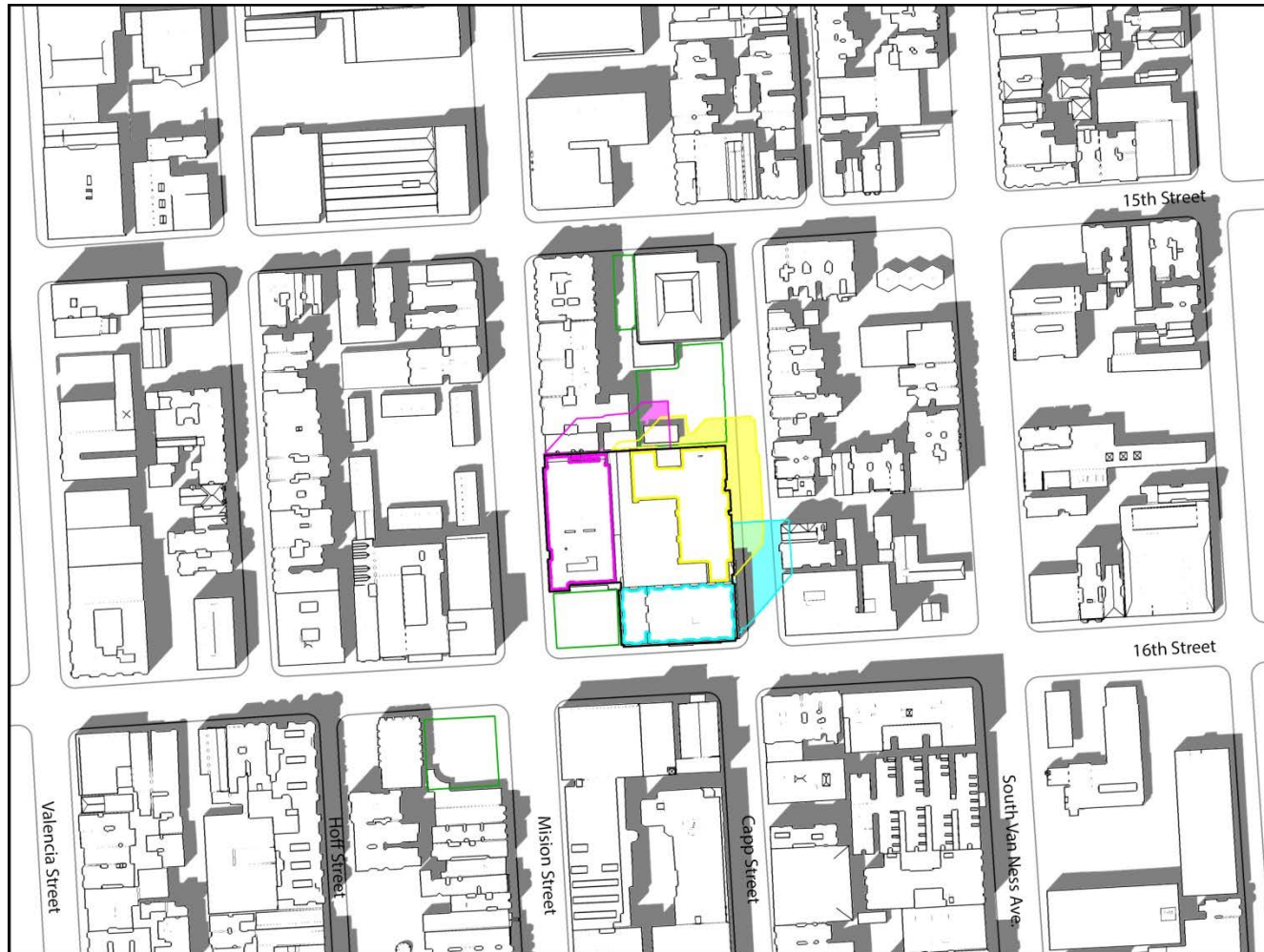




1979 Mission Street
September 20 2:00 pm

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
September 20 3:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 4:00 pm

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 5:00 pm

- | | | |
|--|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Combined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
September 20 6:00 pm

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 Sunset -1 Hour (6:10 pm)

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 Sunrise +1 Hour (8:20 am)

- | | | |
|--|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Combined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |

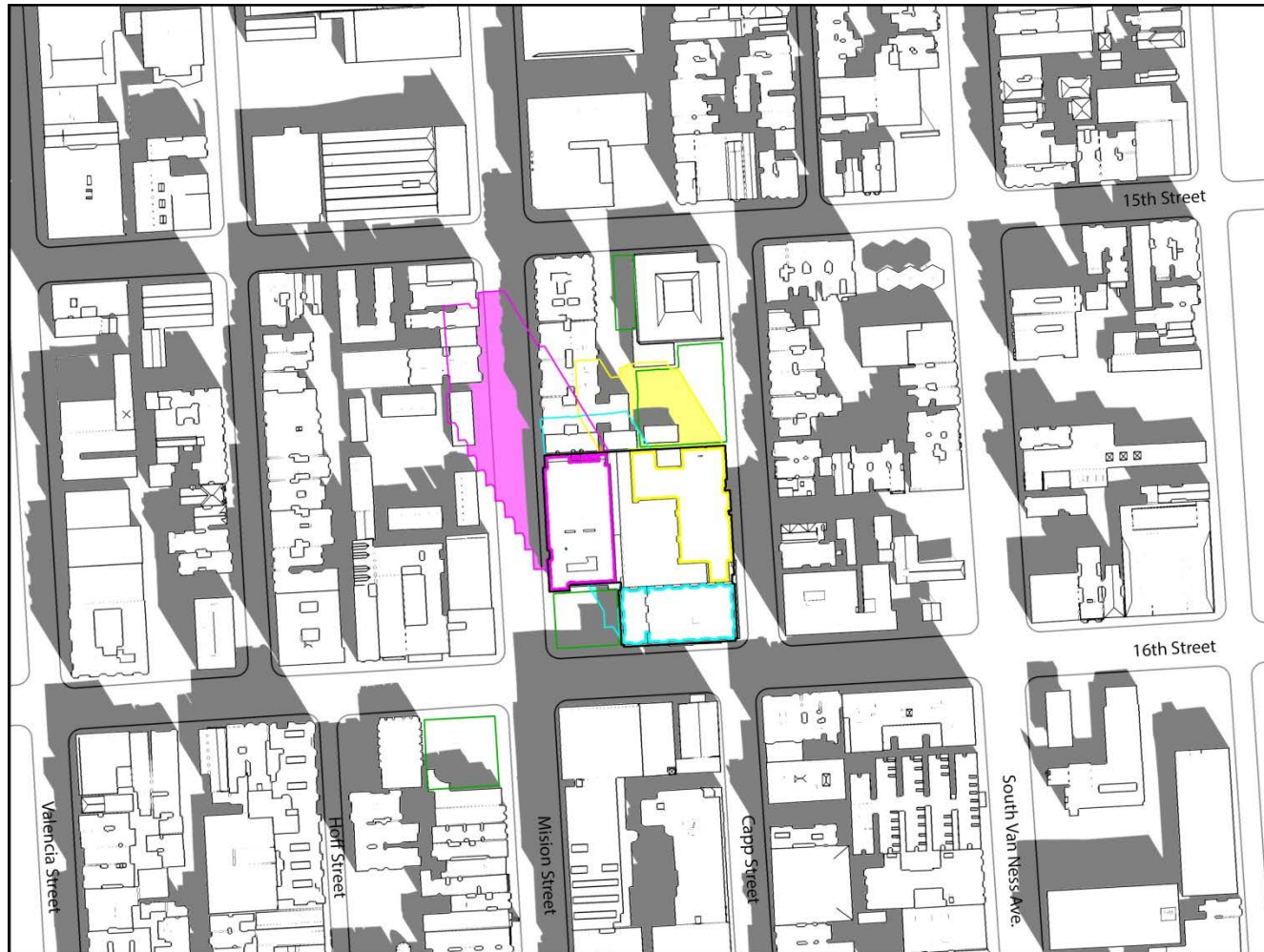




1979 Mission Street
December 20 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 10:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 11:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 12:00 noon

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 1:00 pm

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |

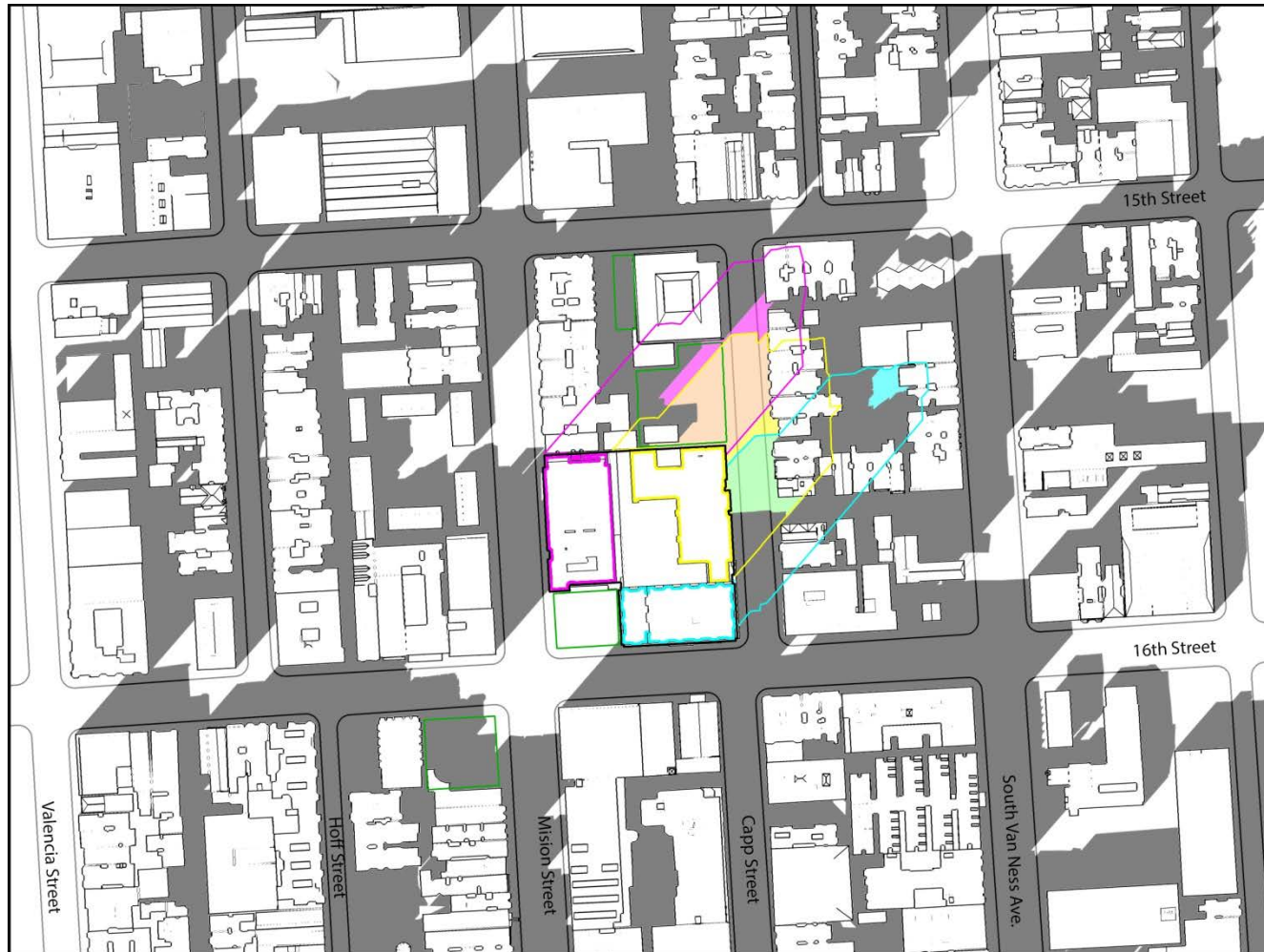




1979 Mission Street
December 20 2:00 pm

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |

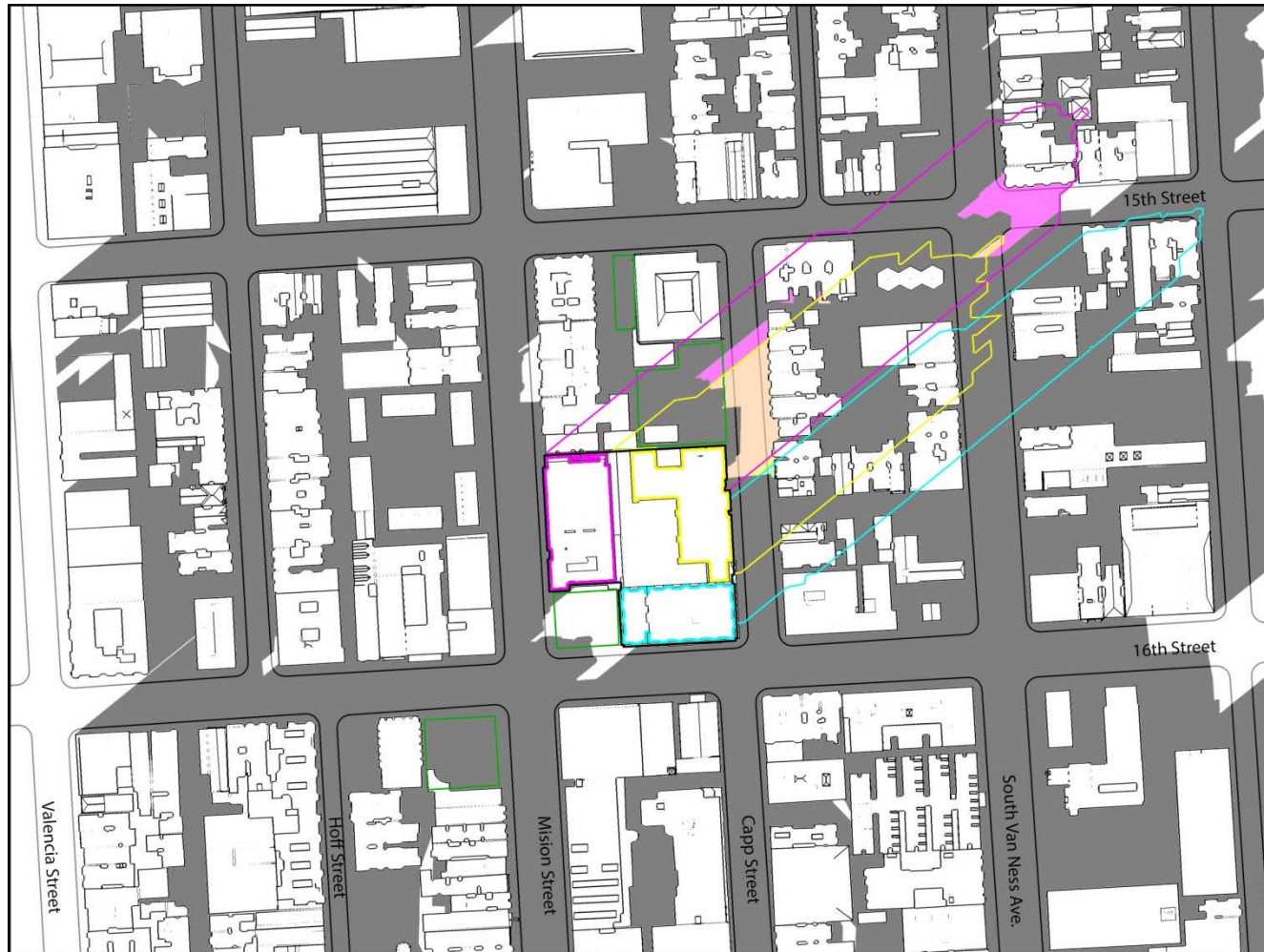




1979 Mission Street
December 20 3:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 3:55 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows



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EXHIBIT D

Summaries and Quantitative Results

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EXHIBIT D.1.A

Marshall Elementary School Playground

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Summary of Results - 1979 Mission Street - Marshall Elementary School
 Playground
 (Updated datum - FINAL DESIGN)

cadp annualized net new shadow	11,785,128.79 Sq ft hrs
Annual Available Sunlight (AAS), based on City's AAS Factor	54,615,705.53 Sq ft hrs
Annual Shadow Increase as a Percentage of AAS	21.578%

Exisitng Shadow Load	
Annulaized Existing Shadow	12,061,130.70
Annual Available Sunlight (AAS), based on City's AAS Factor	54,615,705.53
	22.0836%

TOTAL Shadow	23,846,259.48
	43.66191%



Quantitative Shadow Results - Impact Times

EXHIBIT D.1

1979 Mission Street - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
21-Jun	None	1991.06.21 09:15:00	0:15:00	225.81	56.45	10.17	2.54	
		1991.06.21 09:30:00	0:15:00	256.58	64.15	165.76	41.44	
		1991.06.21 09:45:00	0:15:00	287.60	71.90	313.41	78.35	
		1991.06.21 10:00:00	0:15:00	313.16	78.29	425.82	106.46	
		1991.06.21 10:15:00	0:15:00	338.97	84.74	536.49	134.12	
		1991.06.21 10:30:00	0:15:00	358.08	89.52	616.64	154.16	
		1991.06.21 10:45:00	0:15:00	371.23	92.81	696.30	174.08	
		1991.06.21 11:00:00	0:15:00	365.52	91.38	740.97	185.24	
		1991.06.21 11:15:00	0:15:00	361.80	90.45	803.00	200.75	
		1991.06.21 11:30:00	0:15:00	353.36	88.34	842.71	210.68	
		1991.06.21 11:45:00	0:15:00	343.68	85.92	908.46	227.12	
		1991.06.21 12:00:00	0:15:00	329.79	82.45	932.29	233.07	
		1991.06.21 12:15:00	0:15:00	318.37	79.59	997.05	249.26	
		1991.06.21 12:30:00	0:15:00	292.32	73.08	1,004.50	251.12	
		1991.06.21 12:45:00	0:15:00	268.49	67.12	1,063.31	265.83	
		1991.06.21 13:00:00	0:15:00	239.71	59.93	1,051.40	262.85	
		1991.06.21 13:15:00	0:15:00	240.21	60.05	1,094.57	273.64	
		1991.06.21 13:30:00	0:15:00	274.95	68.74	1,070.26	267.56	
		1991.06.21 13:45:00	0:15:00	337.73	84.43	1,070.26	267.56	
		1991.06.21 14:00:00	0:15:00	410.43	102.61	991.10	247.77	
		1991.06.21 14:15:00	0:15:00	606.97	151.74	964.30	241.07	
		1991.06.21 14:30:00	0:15:00	814.17	203.54	876.45	219.11	
		1991.06.21 14:45:00	0:15:00	1,029.81	257.45	836.25	209.06	
		1991.06.21 15:00:00	0:15:00	1,242.22	310.56	766.28	191.57	
		1991.06.21 15:15:00	0:15:00	1,443.47	360.87	692.83	173.21	
		1991.06.21 15:30:00	0:15:00	1,635.04	408.76	563.29	140.82	
		1991.06.21 15:45:00	0:15:00	1,868.29	467.07	437.98	109.50	
		1991.06.21 16:00:00	0:15:00	2,100.31	525.08	288.10	72.02	
		1991.06.21 16:15:00	0:15:00	7:15:00 2,346.47	586.62	124.57	31.14	5,221.12
28-Jun	14-Jun	1991.06.28 09:15:00	0:15:00	224.08	56.02	8.69	2.17	
		1991.06.28 09:30:00	0:15:00	256.58	64.15	163.03	40.76	
		1991.06.28 09:45:00	0:15:00	287.85	71.96	314.90	78.72	
		1991.06.28 10:00:00	0:15:00	314.15	78.54	429.79	107.45	
		1991.06.28 10:15:00	0:15:00	339.71	84.93	540.96	135.24	
		1991.06.28 10:30:00	0:15:00	358.82	89.71	623.34	155.84	
		1991.06.28 10:45:00	0:15:00	374.21	93.55	701.01	175.25	
		1991.06.28 11:00:00	0:15:00	369.49	92.37	745.68	186.42	
		1991.06.28 11:15:00	0:15:00	365.27	91.32	808.71	202.18	
		1991.06.28 11:30:00	0:15:00	356.34	89.09	847.17	211.79	
		1991.06.28 11:45:00	0:15:00	346.66	86.67	916.65	229.16	
		1991.06.28 12:00:00	0:15:00	333.01	83.25	943.20	235.80	
		1991.06.28 12:15:00	0:15:00	321.10	80.28	1,003.75	250.94	
		1991.06.28 12:30:00	0:15:00	297.28	74.32	1,016.41	254.10	
		1991.06.28 12:45:00	0:15:00	272.71	68.18	1,073.98	268.49	
		1991.06.28 13:00:00	0:15:00	242.94	60.73	1,064.55	266.14	
		1991.06.28 13:15:00	0:15:00	240.95	60.24	1,104.25	276.06	
		1991.06.28 13:30:00	0:15:00	272.71	68.18	1,086.88	271.72	
		1991.06.28 13:45:00	0:15:00	332.76	83.19	1,086.39	271.60	
		1991.06.28 14:00:00	0:15:00	404.98	101.24	1,008.72	252.18	
		1991.06.28 14:15:00	0:15:00	589.35	147.34	986.38	246.60	
		1991.06.28 14:30:00	0:15:00	799.28	199.82	898.54	224.63	
		1991.06.28 14:45:00	0:15:00	1,016.66	254.16	848.91	212.23	
		1991.06.28 15:00:00	0:15:00	1,229.57	307.39	783.15	195.79	
		1991.06.28 15:15:00	0:15:00	1,429.08	357.27	719.62	179.91	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.06.28 15:30:00	0:15:00	1,624.12	406.03	590.34	147.59	
		1991.06.28 15:45:00	0:15:00	1,850.68	462.67	473.22	118.30	
		1991.06.28 16:00:00	0:15:00	2,084.93	521.23	321.10	80.28	
		1991.06.28 16:15:00	0:15:00	2,333.32	583.33	160.55	40.14	
		1991.06.28 16:30:00	0:15:00	7:30:00 2,586.43	646.61	1.74	0.43	
5-Jul	7-Jul	1991.07.05 09:15:00	0:15:00	231.27	57.82	31.02	7.76	5,317.90
		1991.07.05 09:30:00	0:15:00	263.28	65.82	193.55	48.39	
		1991.07.05 09:45:00	0:15:00	294.05	73.51	353.11	88.28	
		1991.07.05 10:00:00	0:15:00	319.61	79.90	469.49	117.37	
		1991.07.05 10:15:00	0:15:00	345.67	86.42	579.92	144.98	
		1991.07.05 10:30:00	0:15:00	364.03	91.01	659.57	164.89	
		1991.07.05 10:45:00	0:15:00	384.88	96.22	728.56	182.14	
		1991.07.05 11:00:00	0:15:00	379.42	94.85	773.97	193.49	
		1991.07.05 11:15:00	0:15:00	374.21	93.55	835.26	208.82	
		1991.07.05 11:30:00	0:15:00	363.53	90.88	880.42	220.11	
		1991.07.05 11:45:00	0:15:00	352.12	88.03	950.15	237.54	
		1991.07.05 12:00:00	0:15:00	337.48	84.37	978.44	244.61	
		1991.07.05 12:15:00	0:15:00	329.29	82.32	1,042.71	260.68	
		1991.07.05 12:30:00	0:15:00	306.21	76.55	1,056.61	264.15	
		1991.07.05 12:45:00	0:15:00	280.90	70.23	1,112.94	278.23	
		1991.07.05 13:00:00	0:15:00	251.37	62.84	1,105.49	276.37	
		1991.07.05 13:15:00	0:15:00	244.42	61.11	1,145.69	286.42	
		1991.07.05 13:30:00	0:15:00	273.46	68.36	1,137.50	284.38	
		1991.07.05 13:45:00	0:15:00	334.01	83.50	1,137.01	284.25	
		1991.07.05 14:00:00	0:15:00	402.99	100.75	1,062.07	265.52	
		1991.07.05 14:15:00	0:15:00	583.14	145.79	1,041.22	260.31	
		1991.07.05 14:30:00	0:15:00	795.06	198.77	948.91	237.23	
		1991.07.05 14:45:00	0:15:00	1,014.42	253.61	896.06	224.01	
		1991.07.05 15:00:00	0:15:00	1,230.31	307.58	818.88	204.72	
		1991.07.05 15:15:00	0:15:00	1,435.53	358.88	769.01	192.25	
		1991.07.05 15:30:00	0:15:00	1,632.06	408.02	654.11	163.53	
		1991.07.05 15:45:00	0:15:00	1,858.86	464.72	540.71	135.18	
		1991.07.05 16:00:00	0:15:00	2,096.34	524.09	389.84	97.46	
		1991.07.05 16:15:00	0:15:00	2,345.98	586.49	235.99	59.00	
		1991.07.05 16:30:00	0:15:00	7:30:00 2,602.06	650.52	27.30	6.82	
12-Jul	31-May	1991.07.12 09:15:00	0:15:00	241.45	60.36	90.82	22.71	5,638.88
		1991.07.12 09:30:00	0:15:00	274.95	68.74	262.79	65.70	
		1991.07.12 09:45:00	0:15:00	307.70	76.93	424.08	106.02	
		1991.07.12 10:00:00	0:15:00	331.77	82.94	541.21	135.30	
		1991.07.12 10:15:00	0:15:00	358.08	89.52	653.62	163.40	
		1991.07.12 10:30:00	0:15:00	379.42	94.85	719.38	179.84	
		1991.07.12 10:45:00	0:15:00	399.27	99.82	777.19	194.30	
		1991.07.12 11:00:00	0:15:00	393.06	98.27	822.11	205.53	
		1991.07.12 11:15:00	0:15:00	385.62	96.41	898.29	224.57	
		1991.07.12 11:30:00	0:15:00	372.22	93.06	944.20	236.05	
		1991.07.12 11:45:00	0:15:00	363.29	90.82	1,014.42	253.61	
		1991.07.12 12:00:00	0:15:00	349.64	87.41	1,041.72	260.43	
		1991.07.12 12:15:00	0:15:00	337.23	84.31	1,104.25	276.06	
		1991.07.12 12:30:00	0:15:00	314.90	78.72	1,122.12	280.53	
		1991.07.12 12:45:00	0:15:00	291.32	72.83	1,180.43	295.11	
		1991.07.12 13:00:00	0:15:00	260.31	65.08	1,175.97	293.99	
		1991.07.12 13:15:00	0:15:00	249.39	62.35	1,221.62	305.41	
		1991.07.12 13:30:00	0:15:00	279.91	69.98	1,213.68	303.42	
		1991.07.12 13:45:00	0:15:00	338.97	84.74	1,217.65	304.41	
		1991.07.12 14:00:00	0:15:00	411.43	102.86	1,143.71	285.93	
		1991.07.12 14:15:00	0:15:00	588.60	147.15	1,123.36	280.84	
		1991.07.12 14:30:00	0:15:00	801.02	200.25	1,036.01	259.00	
		1991.07.12 14:45:00	0:15:00	1,027.57	256.89	981.92	245.48	
		1991.07.12 15:00:00	0:15:00	1,250.66	312.66	877.20	219.30	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.07.12 15:15:00	0:15:00	1,458.11	364.53	823.60	205.90	
		1991.07.12 15:30:00	0:15:00	1,660.35	415.09	742.21	185.55	
		1991.07.12 15:45:00	0:15:00	1,894.35	473.59	641.71	160.43	
		1991.07.12 16:00:00	0:15:00	2,129.59	532.40	497.53	124.38	
		1991.07.12 16:15:00	0:15:00	2,389.40	597.35	347.65	86.91	
		1991.07.12 16:30:00	0:15:00	7:30:00 2,652.44	663.11	142.93	35.73	6,195.84
19-Jul	24-May	1991.07.19 09:00:00	0:15:00	223.33	55.83	12.66	3.16	
		1991.07.19 09:15:00	0:15:00	260.80	65.20	192.31	48.08	
		1991.07.19 09:30:00	0:15:00	293.31	73.33	367.51	91.88	
		1991.07.19 09:45:00	0:15:00	325.32	81.33	535.75	133.94	
		1991.07.19 10:00:00	0:15:00	352.37	88.09	650.39	162.60	
		1991.07.19 10:15:00	0:15:00	377.93	94.48	736.75	184.19	
		1991.07.19 10:30:00	0:15:00	397.78	99.45	787.12	196.78	
		1991.07.19 10:45:00	0:15:00	414.65	103.66	854.62	213.65	
		1991.07.19 11:00:00	0:15:00	407.95	101.99	915.91	228.98	
		1991.07.19 11:15:00	0:15:00	399.27	99.82	990.85	247.71	
		1991.07.19 11:30:00	0:15:00	384.88	96.22	1,038.00	259.50	
		1991.07.19 11:45:00	0:15:00	374.70	93.68	1,105.74	276.44	
		1991.07.19 12:00:00	0:15:00	359.81	89.95	1,130.80	282.70	
		1991.07.19 12:15:00	0:15:00	347.90	86.98	1,198.05	299.51	
		1991.07.19 12:30:00	0:15:00	327.55	81.89	1,216.17	304.04	
		1991.07.19 12:45:00	0:15:00	301.99	75.50	1,283.41	320.85	
		1991.07.19 13:00:00	0:15:00	270.73	67.68	1,284.41	321.10	
		1991.07.19 13:15:00	0:15:00	258.57	64.64	1,329.07	332.27	
		1991.07.19 13:30:00	0:15:00	289.34	72.34	1,325.10	331.28	
		1991.07.19 13:45:00	0:15:00	347.90	86.98	1,333.29	333.32	
		1991.07.19 14:00:00	0:15:00	423.59	105.90	1,258.10	314.53	
		1991.07.19 14:15:00	0:15:00	605.97	151.49	1,239.00	309.75	
		1991.07.19 14:30:00	0:15:00	824.34	206.09	1,150.90	287.73	
		1991.07.19 14:45:00	0:15:00	1,054.62	263.66	1,099.29	274.82	
		1991.07.19 15:00:00	0:15:00	1,284.41	321.10	994.57	248.64	
		1991.07.19 15:15:00	0:15:00	1,498.06	374.52	918.39	229.60	
		1991.07.19 15:30:00	0:15:00	1,713.70	428.43	820.37	205.09	
		1991.07.19 15:45:00	0:15:00	1,955.15	488.79	763.79	190.95	
		1991.07.19 16:00:00	0:15:00	2,192.87	548.22	643.94	160.99	
		1991.07.19 16:15:00	0:15:00	2,460.62	615.16	494.06	123.52	
		1991.07.19 16:30:00	0:15:00	2,729.86	682.46	293.56	73.39	
		1991.07.19 16:45:00	0:15:00	8:00:00 3,032.84	758.21	72.71	18.18	7,009.14
26-Jul	17-May	1991.07.26 09:00:00	0:15:00	264.03	66.01	133.26	33.31	
		1991.07.26 09:15:00	0:15:00	286.11	71.53	333.51	83.38	
		1991.07.26 09:30:00	0:15:00	319.61	79.90	512.67	128.17	
		1991.07.26 09:45:00	0:15:00	350.63	87.66	683.64	170.91	
		1991.07.26 10:00:00	0:15:00	377.43	94.36	759.82	189.96	
		1991.07.26 10:15:00	0:15:00	399.52	99.88	823.35	205.84	
		1991.07.26 10:30:00	0:15:00	414.40	103.60	898.79	224.70	
		1991.07.26 10:45:00	0:15:00	427.06	106.77	986.88	246.72	
		1991.07.26 11:00:00	0:15:00	424.83	106.21	1,041.22	260.31	
		1991.07.26 11:15:00	0:15:00	414.40	103.60	1,113.93	278.48	
		1991.07.26 11:30:00	0:15:00	400.51	100.13	1,155.37	288.84	
		1991.07.26 11:45:00	0:15:00	389.34	97.34	1,225.10	306.28	
		1991.07.26 12:00:00	0:15:00	375.20	93.80	1,252.64	313.16	
		1991.07.26 12:15:00	0:15:00	362.54	90.64	1,317.41	329.35	
		1991.07.26 12:30:00	0:15:00	342.69	85.67	1,341.98	335.49	
		1991.07.26 12:45:00	0:15:00	318.37	79.59	1,404.26	351.07	
		1991.07.26 13:00:00	0:15:00	286.86	71.71	1,412.20	353.05	
		1991.07.26 13:15:00	0:15:00	273.71	68.43	1,463.32	365.83	
		1991.07.26 13:30:00	0:15:00	305.22	76.31	1,467.29	366.82	
		1991.07.26 13:45:00	0:15:00	366.26	91.57	1,472.00	368.00	
		1991.07.26 14:00:00	0:15:00	440.71	110.18	1,403.02	350.76	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.07.26 14:15:00	0:15:00	633.02	158.26	1,387.39	346.85	8,113.58
		1991.07.26 14:30:00	0:15:00	858.83	214.71	1,300.29	325.07	
		1991.07.26 14:45:00	0:15:00	1,091.84	272.96	1,251.40	312.85	
		1991.07.26 15:00:00	0:15:00	1,327.83	331.96	1,151.90	287.97	
		1991.07.26 15:15:00	0:15:00	1,550.17	387.54	1,074.47	268.62	
		1991.07.26 15:30:00	0:15:00	1,787.65	446.91	945.19	236.30	
		1991.07.26 15:45:00	0:15:00	2,041.25	510.31	875.96	218.99	
		1991.07.26 16:00:00	0:15:00	2,288.90	572.23	801.02	200.25	
		1991.07.26 16:15:00	0:15:00	2,559.63	639.91	689.85	172.46	
		1991.07.26 16:30:00	0:15:00	2,846.74	711.68	484.38	121.10	
		1991.07.26 16:45:00	0:15:00	3,160.64	790.16	273.71	68.43	
		1991.07.26 17:00:00	0:15:00	8:15:00 3,632.12	908.03	17.12	4.28	
2-Aug	10-May	1991.08.02 08:45:00	0:15:00	726.08	181.52	106.95	26.74	9,576.09
		1991.08.02 09:00:00	0:15:00	343.44	85.86	312.42	78.10	
		1991.08.02 09:15:00	0:15:00	318.62	79.66	517.14	129.28	
		1991.08.02 09:30:00	0:15:00	352.12	88.03	686.87	171.72	
		1991.08.02 09:45:00	0:15:00	384.38	96.10	793.08	198.27	
		1991.08.02 10:00:00	0:15:00	401.00	100.25	894.57	223.64	
		1991.08.02 10:15:00	0:15:00	418.13	104.53	993.58	248.39	
		1991.08.02 10:30:00	0:15:00	430.29	107.57	1,069.01	267.25	
		1991.08.02 10:45:00	0:15:00	444.93	111.23	1,148.17	287.04	
		1991.08.02 11:00:00	0:15:00	443.69	110.92	1,204.50	301.13	
		1991.08.02 11:15:00	0:15:00	431.53	107.88	1,271.75	317.94	
		1991.08.02 11:30:00	0:15:00	418.38	104.59	1,308.97	327.24	
		1991.08.02 11:45:00	0:15:00	406.96	101.74	1,372.75	343.19	
		1991.08.02 12:00:00	0:15:00	392.07	98.02	1,402.52	350.63	
		1991.08.02 12:15:00	0:15:00	379.91	94.98	1,467.79	366.95	
		1991.08.02 12:30:00	0:15:00	359.07	89.77	1,496.32	374.08	
		1991.08.02 12:45:00	0:15:00	333.01	83.25	1,565.31	391.33	
		1991.08.02 13:00:00	0:15:00	301.00	75.25	1,579.45	394.86	
		1991.08.02 13:15:00	0:15:00	290.83	72.71	1,632.06	408.02	
		1991.08.02 13:30:00	0:15:00	324.08	81.02	1,646.20	411.55	
		1991.08.02 13:45:00	0:15:00	390.33	97.58	1,648.93	412.23	
		1991.08.02 14:00:00	0:15:00	467.51	116.88	1,583.17	395.79	
		1991.08.02 14:15:00	0:15:00	675.95	168.99	1,563.82	390.96	
		1991.08.02 14:30:00	0:15:00	909.95	227.49	1,474.49	368.62	
		1991.08.02 14:45:00	0:15:00	1,151.65	287.91	1,440.99	360.25	
		1991.08.02 15:00:00	0:15:00	1,391.61	347.90	1,351.41	337.85	
		1991.08.02 15:15:00	0:15:00	1,617.42	404.35	1,278.70	319.67	
		1991.08.02 15:30:00	0:15:00	1,875.24	468.81	1,136.51	284.13	
		1991.08.02 15:45:00	0:15:00	2,153.17	538.29	1,061.32	265.33	
		1991.08.02 16:00:00	0:15:00	2,425.38	606.35	952.39	238.10	
		1991.08.02 16:15:00	0:15:00	2,708.02	677.01	868.51	217.13	
		1991.08.02 16:30:00	0:15:00	2,997.36	749.34	723.35	180.84	
		1991.08.02 16:45:00	0:15:00	3,348.49	837.12	513.42	128.35	
		1991.08.02 17:00:00	0:15:00	8:30:00 3,871.08	967.77	237.97	59.49	
9-Aug	3-May	1991.08.09 08:30:00	0:15:00	1,654.39	413.60	88.09	22.02	
		1991.08.09 08:45:00	0:15:00	936.01	234.00	319.36	79.84	
		1991.08.09 09:00:00	0:15:00	487.36	121.84	533.02	133.26	
		1991.08.09 09:15:00	0:15:00	357.33	89.33	687.61	171.90	
		1991.08.09 09:30:00	0:15:00	384.88	96.22	823.35	205.84	
		1991.08.09 09:45:00	0:15:00	405.97	101.49	975.22	243.80	
		1991.08.09 10:00:00	0:15:00	421.10	105.28	1,102.76	275.69	
		1991.08.09 10:15:00	0:15:00	438.48	109.62	1,212.20	303.05	
		1991.08.09 10:30:00	0:15:00	449.15	112.29	1,286.89	321.72	
		1991.08.09 10:45:00	0:15:00	464.03	116.01	1,359.35	339.84	
		1991.08.09 11:00:00	0:15:00	465.77	116.44	1,398.06	349.51	
		1991.08.09 11:15:00	0:15:00	455.60	113.90	1,461.58	365.40	
		1991.08.09 11:30:00	0:15:00	440.71	110.18	1,490.86	372.72	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.08.09 11:45:00	0:15:00	426.81	106.70	1,545.46	386.36	
		1991.08.09 12:00:00	0:15:00	411.68	102.92	1,573.00	393.25	
		1991.08.09 12:15:00	0:15:00	398.52	99.63	1,646.70	411.68	
		1991.08.09 12:30:00	0:15:00	377.68	94.42	1,679.95	419.99	
		1991.08.09 12:45:00	0:15:00	350.88	87.72	1,753.65	438.41	
		1991.08.09 13:00:00	0:15:00	317.63	79.41	1,775.24	443.81	
		1991.08.09 13:15:00	0:15:00	310.68	77.67	1,836.04	459.01	
		1991.08.09 13:30:00	0:15:00	349.14	87.29	1,856.63	464.16	
		1991.08.09 13:45:00	0:15:00	418.87	104.72	1,852.91	463.23	
		1991.08.09 14:00:00	0:15:00	510.69	127.67	1,786.16	446.54	
		1991.08.09 14:15:00	0:15:00	738.48	184.62	1,767.79	441.95	
		1991.08.09 14:30:00	0:15:00	976.95	244.24	1,685.66	421.41	
		1991.08.09 14:45:00	0:15:00	1,229.81	307.45	1,666.30	416.58	
		1991.08.09 15:00:00	0:15:00	1,471.26	367.82	1,595.33	398.83	
		1991.08.09 15:15:00	0:15:00	1,710.22	427.56	1,530.57	382.64	
		1991.08.09 15:30:00	0:15:00	1,986.16	496.54	1,395.33	348.83	
		1991.08.09 15:45:00	0:15:00	2,275.50	568.88	1,309.96	327.49	
		1991.08.09 16:00:00	0:15:00	2,576.50	644.13	1,166.04	291.51	
		1991.08.09 16:15:00	0:15:00	2,891.90	722.97	1,071.74	267.94	
		1991.08.09 16:30:00	0:15:00	3,206.80	801.70	936.01	234.00	
		1991.08.09 16:45:00	0:15:00	3,619.21	904.80	784.39	196.10	
		1991.08.09 17:00:00	0:15:00	4,165.14	1,041.28	529.30	132.32	
		1991.08.09 17:15:00	0:15:00	9:00:00 4,851.76	1,212.94	223.33	55.83	11,426.46
16-Aug	26-May	1991.08.16 08:15:00	0:15:00	3,362.88	840.72	76.68	19.17	
		1991.08.16 08:30:00	0:15:00	2,070.78	517.70	319.86	79.97	
		1991.08.16 08:45:00	0:15:00	1,203.76	300.94	550.89	137.72	
		1991.08.16 09:00:00	0:15:00	670.74	167.69	704.49	176.12	
		1991.08.16 09:15:00	0:15:00	394.55	98.64	892.33	223.08	
		1991.08.16 09:30:00	0:15:00	409.69	102.42	1,053.38	263.35	
		1991.08.16 09:45:00	0:15:00	427.80	106.95	1,217.16	304.29	
		1991.08.16 10:00:00	0:15:00	446.42	111.60	1,342.72	335.68	
		1991.08.16 10:15:00	0:15:00	460.81	115.20	1,472.75	368.19	
		1991.08.16 10:30:00	0:15:00	472.97	118.24	1,542.73	385.68	
		1991.08.16 10:45:00	0:15:00	486.62	121.65	1,593.60	398.40	
		1991.08.16 11:00:00	0:15:00	491.33	122.83	1,619.16	404.79	
		1991.08.16 11:15:00	0:15:00	481.40	120.35	1,669.78	417.44	
		1991.08.16 11:30:00	0:15:00	467.26	116.82	1,690.62	422.66	
		1991.08.16 11:45:00	0:15:00	448.90	112.22	1,749.43	437.36	
		1991.08.16 12:00:00	0:15:00	434.26	108.56	1,775.74	443.93	
		1991.08.16 12:15:00	0:15:00	418.62	104.66	1,851.17	462.79	
		1991.08.16 12:30:00	0:15:00	398.28	99.57	1,887.40	471.85	
		1991.08.16 12:45:00	0:15:00	368.99	92.25	1,971.77	492.94	
		1991.08.16 13:00:00	0:15:00	338.22	84.56	1,999.81	499.95	
		1991.08.16 13:15:00	0:15:00	336.98	84.25	2,068.55	517.14	
		1991.08.16 13:30:00	0:15:00	381.90	95.47	2,093.36	523.34	
		1991.08.16 13:45:00	0:15:00	456.34	114.09	2,082.20	520.55	
		1991.08.16 14:00:00	0:15:00	577.44	144.36	2,020.41	505.10	
		1991.08.16 14:15:00	0:15:00	812.93	203.23	2,003.78	500.95	
		1991.08.16 14:30:00	0:15:00	1,061.82	265.46	1,923.13	480.78	
		1991.08.16 14:45:00	0:15:00	1,323.61	330.90	1,932.32	483.08	
		1991.08.16 15:00:00	0:15:00	1,571.01	392.75	1,893.11	473.28	
		1991.08.16 15:15:00	0:15:00	1,831.07	457.77	1,829.09	457.27	
		1991.08.16 15:30:00	0:15:00	2,120.91	530.23	1,720.90	430.22	
		1991.08.16 15:45:00	0:15:00	2,429.85	607.46	1,647.44	411.86	
		1991.08.16 16:00:00	0:15:00	2,750.45	687.61	1,489.13	372.28	
		1991.08.16 16:15:00	0:15:00	3,093.39	773.35	1,356.62	339.15	
		1991.08.16 16:30:00	0:15:00	3,462.14	865.53	1,197.80	299.45	
		1991.08.16 16:45:00	0:15:00	3,968.11	992.03	1,053.88	263.47	
		1991.08.16 17:00:00	0:15:00	4,537.60	1,134.40	840.97	210.24	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.08.16 17:15:00	0:15:00	5,262.94	1,315.73	598.28	149.57	13,732.17
		1991.08.16 17:30:00	0:15:00	9:30:00 6,166.93	1,541.73	196.28	49.07	
23-Aug	19-Apr	1991.08.23 08:00:00	0:15:00	6,190.51	1,547.63	78.91	19.73	
		1991.08.23 08:15:00	0:15:00	4,149.50	1,037.38	329.29	82.32	
		1991.08.23 08:30:00	0:15:00	2,609.51	652.38	553.61	138.40	
		1991.08.23 08:45:00	0:15:00	1,528.09	382.02	761.31	190.33	
		1991.08.23 09:00:00	0:15:00	849.90	212.48	968.02	242.01	
		1991.08.23 09:15:00	0:15:00	460.81	115.20	1,158.84	289.71	
		1991.08.23 09:30:00	0:15:00	439.47	109.87	1,321.38	330.35	
		1991.08.23 09:45:00	0:15:00	460.31	115.08	1,478.70	369.68	
		1991.08.23 10:00:00	0:15:00	475.95	118.99	1,609.48	402.37	
		1991.08.23 10:15:00	0:15:00	486.86	121.72	1,747.94	436.99	
		1991.08.23 10:30:00	0:15:00	500.02	125.00	1,808.49	452.12	
		1991.08.23 10:45:00	0:15:00	516.89	129.22	1,860.60	465.15	
		1991.08.23 11:00:00	0:15:00	526.32	131.58	1,874.75	468.69	
		1991.08.23 11:15:00	0:15:00	504.98	126.24	1,916.43	479.11	
		1991.08.23 11:30:00	0:15:00	487.61	121.90	1,921.89	480.47	
		1991.08.23 11:45:00	0:15:00	471.97	117.99	1,977.48	494.37	
		1991.08.23 12:00:00	0:15:00	456.34	114.09	2,009.74	502.43	
		1991.08.23 12:15:00	0:15:00	441.45	110.36	2,084.68	521.17	
		1991.08.23 12:30:00	0:15:00	419.62	104.90	2,129.84	532.46	
		1991.08.23 12:45:00	0:15:00	390.09	97.52	2,218.18	554.55	
		1991.08.23 13:00:00	0:15:00	360.06	90.02	2,259.62	564.91	
		1991.08.23 13:15:00	0:15:00	364.53	91.13	2,341.26	585.32	
		1991.08.23 13:30:00	0:15:00	418.38	104.59	2,357.64	589.41	
		1991.08.23 13:45:00	0:15:00	497.04	124.26	2,347.71	586.93	
		1991.08.23 14:00:00	0:15:00	660.07	165.02	2,289.40	572.35	
		1991.08.23 14:15:00	0:15:00	910.95	227.74	2,271.53	567.88	
		1991.08.23 14:30:00	0:15:00	1,167.78	291.94	2,216.94	554.24	
		1991.08.23 14:45:00	0:15:00	1,439.25	359.81	2,239.77	559.94	
		1991.08.23 15:00:00	0:15:00	1,691.37	422.84	2,220.66	555.17	
		1991.08.23 15:15:00	0:15:00	1,986.16	496.54	2,178.73	544.68	
		1991.08.23 15:30:00	0:15:00	2,294.11	573.53	2,109.49	527.37	
		1991.08.23 15:45:00	0:15:00	2,628.37	657.09	2,050.68	512.67	
		1991.08.23 16:00:00	0:15:00	2,977.01	744.25	1,889.63	472.41	
		1991.08.23 16:15:00	0:15:00	3,346.75	836.69	1,764.57	441.14	
		1991.08.23 16:30:00	0:15:00	3,789.19	947.30	1,570.27	392.57	
		1991.08.23 16:45:00	0:15:00	4,356.95	1,089.24	1,443.47	360.87	
		1991.08.23 17:00:00	0:15:00	4,999.16	1,249.79	1,180.43	295.11	
		1991.08.23 17:15:00	0:15:00	5,810.35	1,452.59	930.05	232.51	
		1991.08.23 17:30:00	0:15:00	6,849.34	1,712.33	644.93	161.23	
		1991.08.23 17:45:00	0:15:00	10:00:00 8,159.05	2,039.76	177.43	44.36	16,573.45
30-Aug	12-Apr	1991.08.30 07:37:48	0:03:36	12,432.38	745.94	3.47	0.21	
		1991.08.30 07:45:00	0:11:24	10,886.68	2,068.47	84.37	16.03	
		1991.08.30 08:00:00	0:15:00	7,408.66	1,852.16	324.58	81.14	
		1991.08.30 08:15:00	0:15:00	5,019.26	1,254.81	574.46	143.62	
		1991.08.30 08:30:00	0:15:00	3,225.65	806.41	782.65	195.66	
		1991.08.30 08:45:00	0:15:00	1,913.21	478.30	1,031.79	257.95	
		1991.08.30 09:00:00	0:15:00	1,060.58	265.14	1,257.61	314.40	
		1991.08.30 09:15:00	0:15:00	579.92	144.98	1,453.64	363.41	
		1991.08.30 09:30:00	0:15:00	482.15	120.54	1,616.18	404.04	
		1991.08.30 09:45:00	0:15:00	489.59	122.40	1,779.21	444.80	
		1991.08.30 10:00:00	0:15:00	507.21	126.80	1,904.77	476.19	
		1991.08.30 10:15:00	0:15:00	528.30	132.08	2,029.09	507.27	
		1991.08.30 10:30:00	0:15:00	537.49	134.37	2,109.99	527.50	
		1991.08.30 10:45:00	0:15:00	539.72	134.93	2,177.98	544.50	
		1991.08.30 11:00:00	0:15:00	545.92	136.48	2,168.05	542.01	
		1991.08.30 11:15:00	0:15:00	532.52	133.13	2,185.92	546.48	
		1991.08.30 11:30:00	0:15:00	512.92	128.23	2,186.67	546.67	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.08.30 11:45:00	0:15:00	499.77	124.94	2,243.74	560.94	19,892.76
		1991.08.30 12:00:00	0:15:00	481.90	120.48	2,272.52	568.13	
		1991.08.30 12:15:00	0:15:00	469.00	117.25	2,350.94	587.74	
		1991.08.30 12:30:00	0:15:00	443.69	110.92	2,393.37	598.34	
		1991.08.30 12:45:00	0:15:00	414.40	103.60	2,483.20	620.80	
		1991.08.30 13:00:00	0:15:00	384.13	96.03	2,532.58	633.15	
		1991.08.30 13:15:00	0:15:00	397.53	99.38	2,629.36	657.34	
		1991.08.30 13:30:00	0:15:00	458.57	114.64	2,643.01	660.75	
		1991.08.30 13:45:00	0:15:00	541.95	135.49	2,640.53	660.13	
		1991.08.30 14:00:00	0:15:00	749.65	187.41	2,592.14	648.03	
		1991.08.30 14:15:00	0:15:00	1,017.15	254.29	2,582.96	645.74	
		1991.08.30 14:30:00	0:15:00	1,300.54	325.13	2,596.36	649.09	
		1991.08.30 14:45:00	0:15:00	1,577.47	394.37	2,632.34	658.08	
		1991.08.30 15:00:00	0:15:00	1,841.00	460.25	2,557.40	639.35	
		1991.08.30 15:15:00	0:15:00	2,164.33	541.08	2,500.82	625.21	
		1991.08.30 15:30:00	0:15:00	2,504.54	626.14	2,429.85	607.46	
		1991.08.30 15:45:00	0:15:00	2,864.11	716.03	2,397.34	599.34	
		1991.08.30 16:00:00	0:15:00	3,234.34	808.59	2,356.15	589.04	
		1991.08.30 16:15:00	0:15:00	3,663.38	915.85	2,251.18	562.80	
		1991.08.30 16:30:00	0:15:00	4,177.54	1,044.39	2,140.01	535.00	
		1991.08.30 16:45:00	0:15:00	4,804.36	1,201.09	1,962.34	490.59	
		1991.08.30 17:00:00	0:15:00	5,540.12	1,385.03	1,590.37	397.59	
		1991.08.30 17:15:00	0:15:00	6,467.69	1,616.92	1,339.00	334.75	
		1991.08.30 17:30:00	0:15:00	7,655.56	1,913.89	1,021.37	255.34	
		1991.08.30 17:45:00	0:15:00	9,190.35	2,297.59	688.11	172.03	
		1991.08.30 18:00:00	0:15:00	11,358.40	2,839.60	96.53	24.13	
6-Sep	5-Apr	1991.09.06 07:44:24	0:07:48	12,750.01	1,657.50	208.20	27.07	19,892.76
		1991.09.06 08:00:00	0:15:00	8,870.74	2,217.68	528.06	132.01	
		1991.09.06 08:15:00	0:15:00	6,034.17	1,508.54	780.17	195.04	
		1991.09.06 08:30:00	0:15:00	3,962.90	990.72	1,047.18	261.79	
		1991.09.06 08:45:00	0:15:00	2,397.09	599.27	1,311.21	327.80	
		1991.09.06 09:00:00	0:15:00	1,342.22	335.56	1,563.82	390.96	
		1991.09.06 09:15:00	0:15:00	767.27	191.82	1,771.77	442.94	
		1991.09.06 09:30:00	0:15:00	523.34	130.84	1,937.28	484.32	
		1991.09.06 09:45:00	0:15:00	527.81	131.95	2,108.75	527.19	
		1991.09.06 10:00:00	0:15:00	537.98	134.50	2,234.56	558.64	
		1991.09.06 10:15:00	0:15:00	561.56	140.39	2,360.12	590.03	
		1991.09.06 10:30:00	0:15:00	571.73	142.93	2,442.26	610.56	
		1991.09.06 10:45:00	0:15:00	585.63	146.41	2,516.20	629.05	
		1991.09.06 11:00:00	0:15:00	591.09	147.77	2,485.68	621.42	
		1991.09.06 11:15:00	0:15:00	574.71	143.68	2,493.37	623.34	
		1991.09.06 11:30:00	0:15:00	555.10	138.78	2,486.67	621.67	
		1991.09.06 11:45:00	0:15:00	539.72	134.93	2,534.32	633.58	
		1991.09.06 12:00:00	0:15:00	523.34	130.84	2,566.33	641.58	
		1991.09.06 12:15:00	0:15:00	506.96	126.74	2,639.78	659.95	
		1991.09.06 12:30:00	0:15:00	484.13	121.03	2,670.05	667.51	
		1991.09.06 12:45:00	0:15:00	452.62	113.16	2,753.68	688.42	
		1991.09.06 13:00:00	0:15:00	425.32	106.33	2,792.89	698.22	
		1991.09.06 13:15:00	0:15:00	454.85	113.71	2,894.13	723.53	
		1991.09.06 13:30:00	0:15:00	512.42	128.11	2,891.15	722.79	
		1991.09.06 13:45:00	0:15:00	606.72	151.68	2,881.72	720.43	
		1991.09.06 14:00:00	0:15:00	854.37	213.59	2,835.57	708.89	
		1991.09.06 14:15:00	0:15:00	1,135.77	283.94	2,845.99	711.50	
		1991.09.06 14:30:00	0:15:00	1,433.79	358.45	2,922.42	730.61	
		1991.09.06 14:45:00	0:15:00	1,728.09	432.02	2,981.23	745.31	
		1991.09.06 15:00:00	0:15:00	2,037.78	509.44	2,920.93	730.23	
		1991.09.06 15:15:00	0:15:00	2,385.18	596.30	2,952.69	738.17	
		1991.09.06 15:30:00	0:15:00	2,739.29	684.82	2,925.65	731.41	
		1991.09.06 15:45:00	0:15:00	3,131.86	782.96	2,864.11	716.03	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.09.06 16:00:00	0:15:00	3,541.79	885.45	2,796.86	699.21	
		1991.09.06 16:15:00	0:15:00	4,025.93	1,006.48	2,816.46	704.12	
		1991.09.06 16:30:00	0:15:00	4,615.03	1,153.76	2,841.77	710.44	
		1991.09.06 16:45:00	0:15:00	5,319.26	1,329.82	2,514.47	628.62	
		1991.09.06 17:00:00	0:15:00	6,171.65	1,542.91	2,064.33	516.08	
		1991.09.06 17:15:00	0:15:00	7,268.70	1,817.18	1,766.06	441.51	
		1991.09.06 17:30:00	0:15:00	8,594.80	2,148.70	1,477.96	369.49	
		1991.09.06 17:45:00	0:15:00	10,462.10	2,615.52	1,041.72	260.43	
		1991.09.06 18:00:00	0:15:00	10:22:48 12,430.64	3,107.66	610.44	152.61	23,494.51
13-Sep	29-Mar	1991.09.13 07:50:24	0:04:48	12,660.43	1,012.83	404.48	32.36	
		1991.09.13 08:00:00	0:12:36	10,358.12	2,175.21	656.35	137.83	
		1991.09.13 08:15:00	0:15:00	7,141.40	1,785.35	1,000.03	250.01	
		1991.09.13 08:30:00	0:15:00	4,773.84	1,193.46	1,305.99	326.50	
		1991.09.13 08:45:00	0:15:00	2,970.06	742.52	1,614.94	403.73	
		1991.09.13 09:00:00	0:15:00	1,696.33	424.08	1,840.50	460.13	
		1991.09.13 09:15:00	0:15:00	962.31	240.58	2,024.38	506.09	
		1991.09.13 09:30:00	0:15:00	577.44	144.36	2,173.27	543.32	
		1991.09.13 09:45:00	0:15:00	577.44	144.36	2,331.58	582.90	
		1991.09.13 10:00:00	0:15:00	582.15	145.54	2,467.57	616.89	
		1991.09.13 10:15:00	0:15:00	599.03	149.76	2,587.17	646.79	
		1991.09.13 10:30:00	0:15:00	599.77	149.94	2,687.18	671.79	
		1991.09.13 10:45:00	0:15:00	613.17	153.29	2,779.74	694.93	
		1991.09.13 11:00:00	0:15:00	613.67	153.42	2,768.32	692.08	
		1991.09.13 11:15:00	0:15:00	600.02	150.00	2,776.51	694.13	
		1991.09.13 11:30:00	0:15:00	577.69	144.42	2,770.80	692.70	
		1991.09.13 11:45:00	0:15:00	563.29	140.82	2,824.65	706.16	
		1991.09.13 12:00:00	0:15:00	542.20	135.55	2,869.07	717.27	
		1991.09.13 12:15:00	0:15:00	528.55	132.14	2,952.20	738.05	
		1991.09.13 12:30:00	0:15:00	500.51	125.13	2,989.17	747.29	
		1991.09.13 12:45:00	0:15:00	472.22	118.06	3,079.00	769.75	
		1991.09.13 13:00:00	0:15:00	451.38	112.85	3,132.35	783.09	
		1991.09.13 13:15:00	0:15:00	496.04	124.01	3,249.23	812.31	
		1991.09.13 13:30:00	0:15:00	577.44	144.36	3,196.13	799.03	
		1991.09.13 13:45:00	0:15:00	713.17	178.29	3,172.80	793.20	
		1991.09.13 14:00:00	0:15:00	995.07	248.77	3,094.63	773.66	
		1991.09.13 14:15:00	0:15:00	1,295.82	323.96	3,141.53	785.38	
		1991.09.13 14:30:00	0:15:00	1,601.78	400.45	3,234.09	808.52	
		1991.09.13 14:45:00	0:15:00	1,908.25	477.06	3,306.30	826.58	
		1991.09.13 15:00:00	0:15:00	2,247.46	561.87	3,325.16	831.29	
		1991.09.13 15:15:00	0:15:00	2,627.87	656.97	3,445.26	861.32	
		1991.09.13 15:30:00	0:15:00	3,028.63	757.16	3,493.90	873.48	
		1991.09.13 15:45:00	0:15:00	3,449.73	862.43	3,543.03	885.76	
		1991.09.13 16:00:00	0:15:00	3,899.62	974.91	3,490.67	872.67	
		1991.09.13 16:15:00	0:15:00	4,441.08	1,110.27	3,571.32	892.83	
		1991.09.13 16:30:00	0:15:00	5,096.93	1,274.23	3,358.91	839.73	
		1991.09.13 16:45:00	0:15:00	5,900.42	1,475.11	2,928.13	732.03	
		1991.09.13 17:00:00	0:15:00	6,903.43	1,725.86	2,482.21	620.55	
		1991.09.13 17:15:00	0:15:00	8,144.41	2,036.10	2,238.53	559.63	
		1991.09.13 17:30:00	0:15:00	9,743.71	2,435.93	1,839.26	459.82	
		1991.09.13 17:45:00	0:15:00	11,694.64	2,923.66	1,386.39	346.60	
		1991.09.13 18:00:00	0:15:00	13,276.08	3,319.02	902.76	225.69	
		1991.09.13 18:15:00	0:10:48	14,042.85	2,527.71	385.62	69.41	
		1991.09.13 18:21:00	0:03:00	10:31:12 14,399.44	719.97	180.90	9.05	27,092.31
20-Sep	22-Mar	1991.09.20 07:57:00	0:01:12	12,414.26	248.29	464.53	9.29	
		1991.09.20 08:00:00	0:09:00	11,638.56	1,745.78	615.90	92.39	
		1991.09.20 08:15:00	0:15:00	8,310.92	2,077.73	1,117.90	279.48	
		1991.09.20 08:30:00	0:15:00	5,662.45	1,415.61	1,523.87	380.97	
		1991.09.20 08:45:00	0:15:00	3,642.04	910.51	1,812.96	453.24	
		1991.09.20 09:00:00	0:15:00	2,121.90	530.48	2,047.21	511.80	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.09.20 09:15:00	0:15:00	1,210.21	302.55	2,213.96	553.49	
		1991.09.20 09:30:00	0:15:00	703.74	175.94	2,372.78	593.19	
		1991.09.20 09:45:00	0:15:00	631.53	157.88	2,530.84	632.71	
		1991.09.20 10:00:00	0:15:00	640.96	160.24	2,656.65	664.16	
		1991.09.20 10:15:00	0:15:00	647.17	161.79	2,789.41	697.35	
		1991.09.20 10:30:00	0:15:00	644.68	161.17	2,897.11	724.28	
		1991.09.20 10:45:00	0:15:00	651.88	162.97	3,002.32	750.58	
		1991.09.20 11:00:00	0:15:00	657.34	164.34	3,026.39	756.60	
		1991.09.20 11:15:00	0:15:00	641.46	160.37	3,069.57	767.39	
		1991.09.20 11:30:00	0:15:00	620.37	155.09	3,085.70	771.43	
		1991.09.20 11:45:00	0:15:00	602.00	150.50	3,167.84	791.96	
		1991.09.20 12:00:00	0:15:00	587.36	146.84	3,233.60	808.40	
		1991.09.20 12:15:00	0:15:00	570.49	142.62	3,337.32	834.33	
		1991.09.20 12:30:00	0:15:00	544.43	136.11	3,399.85	849.96	
		1991.09.20 12:45:00	0:15:00	517.63	129.41	3,513.50	878.38	
		1991.09.20 13:00:00	0:15:00	496.54	124.14	3,584.23	896.06	
		1991.09.20 13:15:00	0:15:00	553.61	138.40	3,703.58	925.90	
		1991.09.20 13:30:00	0:15:00	630.54	157.64	3,630.63	907.66	
		1991.09.20 13:45:00	0:15:00	829.55	207.39	3,597.87	899.47	
		1991.09.20 14:00:00	0:15:00	1,126.34	281.58	3,518.72	879.68	
		1991.09.20 14:15:00	0:15:00	1,456.12	364.03	3,620.70	905.18	
		1991.09.20 14:30:00	0:15:00	1,779.46	444.86	3,717.23	929.31	
		1991.09.20 14:45:00	0:15:00	2,126.61	531.65	3,791.43	947.86	
		1991.09.20 15:00:00	0:15:00	2,508.51	627.13	3,885.97	971.49	
		1991.09.20 15:15:00	0:15:00	2,922.67	730.67	4,067.12	1,016.78	
		1991.09.20 15:30:00	0:15:00	3,347.00	836.75	4,192.43	1,048.11	
		1991.09.20 15:45:00	0:15:00	3,801.35	950.34	4,338.59	1,084.65	
		1991.09.20 16:00:00	0:15:00	4,295.91	1,073.98	4,396.16	1,099.04	
		1991.09.20 16:15:00	0:15:00	4,925.46	1,231.36	4,523.71	1,130.93	
		1991.09.20 16:30:00	0:15:00	5,648.80	1,412.20	4,002.85	1,000.71	
		1991.09.20 16:45:00	0:15:00	6,556.77	1,639.19	3,457.92	864.48	
		1991.09.20 17:00:00	0:15:00	7,700.73	1,925.18	3,021.18	755.30	
		1991.09.20 17:15:00	0:15:00	9,121.86	2,280.47	2,678.74	669.69	
		1991.09.20 17:30:00	0:15:00	11,090.90	2,772.73	2,181.95	545.49	
		1991.09.20 17:45:00	0:15:00	12,477.05	3,119.26	1,650.17	412.54	
		1991.09.20 18:00:00	0:12:36	13,367.89	2,807.26	1,110.70	233.25	
		1991.09.20 18:09:36	0:04:48	10:12:36 13,868.40	1,109.47	744.94	59.60	30,984.51
27-Sep	15-Mar	1991.09.27 08:03:00	0:06:00	12,191.43	1,219.14	493.81	49.38	
		1991.09.27 08:15:00	0:13:12	9,462.07	2,081.66	1,137.26	250.20	
		1991.09.27 08:30:00	0:15:00	6,770.42	1,692.61	1,613.94	403.49	
		1991.09.27 08:45:00	0:15:00	4,434.62	1,108.66	1,963.58	490.90	
		1991.09.27 09:00:00	0:15:00	2,700.08	675.02	2,270.29	567.57	
		1991.09.27 09:15:00	0:15:00	1,521.63	380.41	2,560.87	640.22	
		1991.09.27 09:30:00	0:15:00	874.22	218.56	2,766.58	691.65	
		1991.09.27 09:45:00	0:15:00	683.40	170.85	2,933.59	733.40	
		1991.09.27 10:00:00	0:15:00	686.13	171.53	3,058.16	764.54	
		1991.09.27 10:15:00	0:15:00	692.08	173.02	3,178.51	794.63	
		1991.09.27 10:30:00	0:15:00	694.07	173.52	3,244.76	811.19	
		1991.09.27 10:45:00	0:15:00	698.78	174.70	3,330.62	832.66	
		1991.09.27 11:00:00	0:15:00	701.51	175.38	3,365.11	841.28	
		1991.09.27 11:15:00	0:15:00	686.87	171.72	3,438.07	859.52	
		1991.09.27 11:30:00	0:15:00	665.53	166.38	3,473.30	868.33	
		1991.09.27 11:45:00	0:15:00	644.44	161.11	3,576.78	894.20	
		1991.09.27 12:00:00	0:15:00	624.09	156.02	3,655.69	913.92	
		1991.09.27 12:15:00	0:15:00	607.21	151.80	3,787.21	946.80	
		1991.09.27 12:30:00	0:15:00	573.71	143.43	3,881.26	970.31	
		1991.09.27 12:45:00	0:15:00	544.43	136.11	4,027.91	1,006.98	
		1991.09.27 13:00:00	0:15:00	542.45	135.61	4,113.77	1,028.44	
		1991.09.27 13:15:00	0:15:00	612.43	153.11	4,189.70	1,047.43	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.09.27 13:30:00	0:15:00	697.54	174.39	4,108.81	1,027.20	35,122.85
		1991.09.27 13:45:00	0:15:00	954.62	238.66	4,054.71	1,013.68	
		1991.09.27 14:00:00	0:15:00	1,266.79	316.70	4,000.12	1,000.03	
		1991.09.27 14:15:00	0:15:00	1,603.52	400.88	4,153.97	1,038.49	
		1991.09.27 14:30:00	0:15:00	1,932.07	483.02	4,261.91	1,065.48	
		1991.09.27 14:45:00	0:15:00	2,312.23	578.06	4,408.07	1,102.02	
		1991.09.27 15:00:00	0:15:00	2,709.01	677.25	4,572.34	1,143.09	
		1991.09.27 15:15:00	0:15:00	3,150.47	787.62	4,822.72	1,205.68	
		1991.09.27 15:30:00	0:15:00	3,616.98	904.25	5,016.53	1,254.13	
		1991.09.27 15:45:00	0:15:00	4,123.20	1,030.80	5,233.16	1,308.29	
		1991.09.27 16:00:00	0:15:00	4,689.72	1,172.43	5,492.47	1,373.12	
		1991.09.27 16:15:00	0:15:00	5,376.34	1,344.09	5,251.52	1,312.88	
		1991.09.27 16:30:00	0:15:00	6,228.47	1,557.12	4,610.31	1,152.58	
		1991.09.27 16:45:00	0:15:00	7,305.43	1,826.36	4,022.20	1,005.55	
		1991.09.27 17:00:00	0:15:00	8,635.74	2,158.94	3,500.35	875.09	
		1991.09.27 17:15:00	0:15:00	10,365.32	2,591.33	3,034.58	758.65	
		1991.09.27 17:30:00	0:15:00	11,867.10	2,966.78	2,401.56	600.39	
		1991.09.27 17:45:00	0:13:48	12,938.60	2,975.88	1,605.26	369.21	
		1991.09.27 17:58:11	0:06:36	9:54:36 13,643.33	1,500.77	1,002.76	110.30	
4-Oct	8-Mar	1991.10.04 08:09:36	0:02:24	12,082.49	483.30	469.99	18.80	39,055.04
		1991.10.04 08:15:00	0:10:12	10,675.75	1,814.88	949.90	161.48	
		1991.10.04 08:30:00	0:15:00	7,873.44	1,968.36	1,608.73	402.18	
		1991.10.04 08:45:00	0:15:00	5,319.02	1,329.75	2,075.25	518.81	
		1991.10.04 09:00:00	0:15:00	3,329.13	832.28	2,551.69	637.92	
		1991.10.04 09:15:00	0:15:00	1,947.95	486.99	2,926.89	731.72	
		1991.10.04 09:30:00	0:15:00	1,105.49	276.37	3,164.36	791.09	
		1991.10.04 09:45:00	0:15:00	747.91	186.98	3,353.45	838.36	
		1991.10.04 10:00:00	0:15:00	741.96	185.49	3,478.02	869.51	
		1991.10.04 10:15:00	0:15:00	746.92	186.73	3,605.57	901.39	
		1991.10.04 10:30:00	0:15:00	743.70	185.92	3,687.21	921.80	
		1991.10.04 10:45:00	0:15:00	746.92	186.73	3,751.23	937.81	
		1991.10.04 11:00:00	0:15:00	748.91	187.23	3,769.09	942.27	
		1991.10.04 11:15:00	0:15:00	732.78	183.19	3,838.58	959.64	
		1991.10.04 11:30:00	0:15:00	707.22	176.80	3,895.15	973.79	
		1991.10.04 11:45:00	0:15:00	686.37	171.59	4,017.49	1,004.37	
		1991.10.04 12:00:00	0:15:00	665.28	166.32	4,135.11	1,033.78	
		1991.10.04 12:15:00	0:15:00	648.16	162.04	4,287.72	1,071.93	
		1991.10.04 12:30:00	0:15:00	614.91	153.73	4,394.67	1,098.67	
		1991.10.04 12:45:00	0:15:00	587.61	146.90	4,550.76	1,137.69	
		1991.10.04 13:00:00	0:15:00	592.33	148.08	4,650.01	1,162.50	
		1991.10.04 13:15:00	0:15:00	672.48	168.12	4,719.00	1,179.75	
		1991.10.04 13:30:00	0:15:00	787.62	196.90	4,615.03	1,153.76	
		1991.10.04 13:45:00	0:15:00	1,079.44	269.86	4,534.63	1,133.66	
		1991.10.04 14:00:00	0:15:00	1,401.28	350.32	4,542.57	1,135.64	
		1991.10.04 14:15:00	0:15:00	1,737.77	434.44	4,746.54	1,186.64	
		1991.10.04 14:30:00	0:15:00	2,086.17	521.54	4,882.53	1,220.63	
		1991.10.04 14:45:00	0:15:00	2,483.95	620.99	5,126.46	1,281.61	
		1991.10.04 15:00:00	0:15:00	2,901.33	725.33	5,354.75	1,338.69	
		1991.10.04 15:15:00	0:15:00	3,360.89	840.22	5,688.75	1,422.19	
		1991.10.04 15:30:00	0:15:00	3,858.92	964.73	5,946.83	1,486.71	
		1991.10.04 15:45:00	0:15:00	4,399.39	1,099.85	6,330.71	1,582.68	
		1991.10.04 16:00:00	0:15:00	5,011.07	1,252.77	6,427.24	1,606.81	
		1991.10.04 16:15:00	0:15:00	5,782.31	1,445.58	5,865.68	1,466.42	
		1991.10.04 16:30:00	0:15:00	6,768.69	1,692.17	5,159.46	1,289.87	
		1991.10.04 16:45:00	0:15:00	8,077.66	2,019.42	4,402.12	1,100.53	
		1991.10.04 17:00:00	0:15:00	9,723.86	2,430.97	3,753.46	938.37	
		1991.10.04 17:15:00	0:15:00	11,353.94	2,838.48	2,999.59	749.90	
		1991.10.04 17:30:00	0:16:12	12,558.69	3,390.85	2,117.43	571.71	
		1991.10.04 17:47:23	0:08:24	9:37:12 14,003.89	1,960.54	671.24	93.97	

Date	Mirror	Date+Time	Duration	ExSF	ExSfHr	NewSF	NewSFHr	New SFHR Total/day
11-Oct	1-Mar	1991.10.11 08:16:11	0:07:12	11,621.19	1,394.54	724.34	86.92	42,856.26
		1991.10.11 08:30:00	0:14:24	8,779.42	2,107.06	1,518.41	364.42	
		1991.10.11 08:45:00	0:15:00	6,216.31	1,554.08	2,213.71	553.43	
		1991.10.11 09:00:00	0:15:00	4,005.58	1,001.39	2,786.44	696.61	
		1991.10.11 09:15:00	0:15:00	2,379.72	594.93	3,273.30	818.33	
		1991.10.11 09:30:00	0:15:00	1,366.29	341.57	3,569.09	892.27	
		1991.10.11 09:45:00	0:15:00	860.08	215.02	3,805.08	951.27	
		1991.10.11 10:00:00	0:15:00	803.50	200.87	3,940.32	985.08	
		1991.10.11 10:15:00	0:15:00	803.99	201.00	4,072.58	1,018.14	
		1991.10.11 10:30:00	0:15:00	803.75	200.94	4,141.56	1,035.39	
		1991.10.11 10:45:00	0:15:00	800.02	200.01	4,203.60	1,050.90	
		1991.10.11 11:00:00	0:15:00	799.28	199.82	4,184.99	1,046.25	
		1991.10.11 11:15:00	0:15:00	783.65	195.91	4,229.16	1,057.29	
		1991.10.11 11:30:00	0:15:00	752.88	188.22	4,270.85	1,067.71	
		1991.10.11 11:45:00	0:15:00	730.54	182.64	4,388.47	1,097.12	
		1991.10.11 12:00:00	0:15:00	708.21	177.05	4,513.04	1,128.26	
		1991.10.11 12:15:00	0:15:00	691.34	172.83	4,674.58	1,168.65	
		1991.10.11 12:30:00	0:15:00	657.84	164.46	4,815.78	1,203.94	
		1991.10.11 12:45:00	0:15:00	629.80	157.45	4,999.40	1,249.85	
		1991.10.11 13:00:00	0:15:00	657.84	164.46	5,147.05	1,286.76	
		1991.10.11 13:15:00	0:15:00	743.94	185.99	5,181.79	1,295.45	
		1991.10.11 13:30:00	0:15:00	895.56	223.89	5,099.16	1,274.79	
		1991.10.11 13:45:00	0:15:00	1,200.28	300.07	5,034.39	1,258.60	
		1991.10.11 14:00:00	0:15:00	1,531.31	382.83	5,131.17	1,282.79	
		1991.10.11 14:15:00	0:15:00	1,873.75	468.44	5,388.99	1,347.25	
		1991.10.11 14:30:00	0:15:00	2,248.70	562.18	5,603.14	1,400.79	
		1991.10.11 14:45:00	0:15:00	2,653.43	663.36	5,933.68	1,483.42	
		1991.10.11 15:00:00	0:15:00	3,087.69	771.92	6,245.84	1,561.46	
		1991.10.11 15:15:00	0:15:00	3,556.43	889.11	6,675.14	1,668.78	
		1991.10.11 15:30:00	0:15:00	4,078.53	1,019.63	7,040.16	1,760.04	
		1991.10.11 15:45:00	0:15:00	4,644.31	1,161.08	7,627.52	1,906.88	
		1991.10.11 16:00:00	0:15:00	5,305.62	1,326.40	7,122.05	1,780.51	
		1991.10.11 16:15:00	0:15:00	6,170.90	1,542.73	6,406.39	1,601.60	
		1991.10.11 16:30:00	0:15:00	7,336.94	1,834.24	5,548.55	1,387.14	
		1991.10.11 16:45:00	0:15:00	8,892.32	2,223.08	4,586.24	1,146.56	
		1991.10.11 17:00:00	0:15:00	10,815.46	2,703.86	3,719.96	929.99	
		1991.10.11 17:15:00	0:15:00	11,900.60	2,975.15	2,737.30	684.33	
		1991.10.11 17:30:00	0:11:24	13,170.37	2,502.37	1,505.75	286.09	
		1991.10.11 17:37:12	0:03:36	9:21:36 13,989.25	839.36	686.87	41.21	
18-Oct	22-Feb	1991.10.18 08:22:48	0:03:36	11,172.04	670.32	1,159.34	69.56	
		1991.10.18 08:30:00	0:10:48	9,684.65	1,743.24	1,552.65	279.48	
		1991.10.18 08:45:00	0:15:00	7,219.07	1,804.77	2,353.92	588.48	
		1991.10.18 09:00:00	0:15:00	4,778.06	1,194.51	3,000.09	750.02	
		1991.10.18 09:15:00	0:15:00	2,908.77	727.19	3,576.78	894.20	
		1991.10.18 09:30:00	0:15:00	1,648.44	412.11	3,948.75	987.19	
		1991.10.18 09:45:00	0:15:00	1,014.17	253.54	4,245.54	1,061.38	
		1991.10.18 10:00:00	0:15:00	870.00	217.50	4,431.40	1,107.85	
		1991.10.18 10:15:00	0:15:00	864.29	216.07	4,588.47	1,147.12	
		1991.10.18 10:30:00	0:15:00	857.84	214.46	4,674.58	1,168.65	
		1991.10.18 10:45:00	0:15:00	857.35	214.34	4,746.05	1,186.51	
		1991.10.18 11:00:00	0:15:00	850.89	212.72	4,693.19	1,173.30	
		1991.10.18 11:15:00	0:15:00	838.98	209.75	4,706.34	1,176.59	
		1991.10.18 11:30:00	0:15:00	803.99	201.00	4,698.65	1,174.66	
		1991.10.18 11:45:00	0:15:00	778.19	194.55	4,799.89	1,199.97	
		1991.10.18 12:00:00	0:15:00	755.11	188.78	4,905.85	1,226.46	
		1991.10.18 12:15:00	0:15:00	737.99	184.50	5,078.56	1,269.64	
		1991.10.18 12:30:00	0:15:00	701.01	175.25	5,224.97	1,306.24	
		1991.10.18 12:45:00	0:15:00	676.70	169.17	5,440.36	1,360.09	
		1991.10.18 13:00:00	0:15:00	717.64	179.41	5,633.17	1,408.29	

Date	Mirror	Date+Time	Duration	ExSF	ExSfHr	NewSF	NewSFHr	New SFHR Total/day
		1991.10.18 13:15:00	0:15:00	810.45	202.61	5,655.01	1,413.75	
		1991.10.18 13:30:00	0:15:00	1,001.02	250.26	5,576.59	1,394.15	
		1991.10.18 13:45:00	0:15:00	1,314.18	328.55	5,577.34	1,394.33	
		1991.10.18 14:00:00	0:15:00	1,654.89	413.72	5,784.79	1,446.20	
		1991.10.18 14:15:00	0:15:00	2,005.77	501.44	6,109.61	1,527.40	
		1991.10.18 14:30:00	0:15:00	2,396.85	599.21	6,408.88	1,602.22	
		1991.10.18 14:45:00	0:15:00	2,810.75	702.69	6,792.01	1,698.00	
		1991.10.18 15:00:00	0:15:00	3,254.69	813.67	7,199.47	1,799.87	
		1991.10.18 15:15:00	0:15:00	3,743.78	935.95	7,729.01	1,932.25	
		1991.10.18 15:30:00	0:15:00	4,281.02	1,070.26	8,311.91	2,077.98	
		1991.10.18 15:45:00	0:15:00	4,862.43	1,215.61	8,523.33	2,130.83	
		1991.10.18 16:00:00	0:15:00	5,607.86	1,401.97	7,750.85	1,937.71	
		1991.10.18 16:15:00	0:15:00	6,596.72	1,649.18	6,909.63	1,727.41	
		1991.10.18 16:30:00	0:15:00	7,968.72	1,992.18	5,659.47	1,414.87	
		1991.10.18 16:45:00	0:15:00	9,795.33	2,448.83	4,608.82	1,152.21	
		1991.10.18 17:00:00	0:15:00	11,160.38	2,790.10	3,515.74	878.93	
		1991.10.18 17:15:00	0:13:12	12,240.56	2,692.92	2,435.56	535.82	
		1991.10.18 17:27:00	0:06:00	9:03:36	13,822.49	1,382.25	853.62	46,684.98
25-Oct	15-Feb	1991.10.25 07:30:00	0:07:48		10,870.05	1,413.11	1,695.83	
		1991.10.25 07:45:00	0:15:00		8,025.05	2,006.26	2,543.00	
		1991.10.25 08:00:00	0:15:00		5,561.21	1,390.30	3,234.09	
		1991.10.25 08:15:00	0:15:00		3,557.92	889.48	3,846.02	
		1991.10.25 08:30:00	0:15:00		2,061.60	515.40	4,302.11	
		1991.10.25 08:45:00	0:15:00		1,215.92	303.98	4,660.93	
		1991.10.25 09:00:00	0:15:00		933.78	233.44	4,905.36	
		1991.10.25 09:15:00	0:15:00		929.31	232.33	5,097.42	
		1991.10.25 09:30:00	0:15:00		920.13	230.03	5,201.89	
		1991.10.25 09:45:00	0:15:00		913.43	228.36	5,325.47	
		1991.10.25 10:00:00	0:15:00		907.72	226.93	5,281.05	
		1991.10.25 10:15:00	0:15:00		895.31	223.83	5,291.47	
		1991.10.25 10:30:00	0:15:00		861.32	215.33	5,276.34	
		1991.10.25 10:45:00	0:15:00		830.55	207.64	5,381.80	
		1991.10.25 11:00:00	0:15:00		802.51	200.63	5,484.03	
		1991.10.25 11:15:00	0:15:00		785.63	196.41	5,661.71	
		1991.10.25 11:30:00	0:15:00		750.64	187.66	5,796.45	
		1991.10.25 11:45:00	0:15:00		730.54	182.64	6,044.60	
		1991.10.25 12:00:00	0:15:00		778.44	194.61	6,236.17	
		1991.10.25 12:15:00	0:15:00		877.20	219.30	6,258.00	
		1991.10.25 12:30:00	0:15:00		1,100.78	275.19	6,160.73	
		1991.10.25 12:45:00	0:15:00		1,424.11	356.03	6,213.09	
		1991.10.25 13:00:00	0:15:00		1,764.07	441.02	6,443.12	
		1991.10.25 13:15:00	0:15:00		2,135.80	533.95	6,745.11	
		1991.10.25 13:30:00	0:15:00		2,531.09	632.77	7,000.21	
		1991.10.25 13:45:00	0:15:00		2,950.21	737.55	7,380.12	
		1991.10.25 14:00:00	0:15:00		3,406.06	851.51	7,952.84	
		1991.10.25 14:15:00	0:15:00		3,901.11	975.28	8,758.32	
		1991.10.25 14:30:00	0:15:00		4,442.32	1,110.58	9,769.02	
		1991.10.25 14:45:00	0:15:00		5,060.94	1,265.24	9,211.19	
		1991.10.25 15:00:00	0:15:00		5,887.77	1,471.94	8,321.84	
		1991.10.25 15:15:00	0:15:00		7,060.26	1,765.07	7,082.10	
		1991.10.25 15:30:00	0:15:00		8,590.08	2,147.52	5,663.69	
		1991.10.25 15:45:00	0:15:00		10,256.38	2,564.10	4,419.73	
		1991.10.25 16:00:00	0:15:00		11,499.85	2,874.96	3,176.27	
		1991.10.25 16:15:00	0:09:00		13,115.77	1,967.37	1,560.34	
		1991.10.25 16:18:00	0:01:48	8:48:36	13,602.64	408.08	1,073.48	50,518.04
1-Nov	8-Feb	1991.11.01 07:36:35	0:04:12		11,353.94	794.78	1,537.52	
		1991.11.01 07:45:00	0:11:24		9,157.34	1,739.90	2,438.29	
		1991.11.01 08:00:00	0:15:00		6,341.13	1,585.28	3,514.50	
		1991.11.01 08:15:00	0:15:00		4,206.08	1,051.52	4,099.38	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.11.01 08:30:00	0:15:00	2,513.47	628.37	4,610.06	1,152.52	
		1991.11.01 08:45:00	0:15:00	1,465.55	366.39	5,037.37	1,259.34	
		1991.11.01 09:00:00	0:15:00	1,030.30	257.58	5,348.79	1,337.20	
		1991.11.01 09:15:00	0:15:00	993.83	248.46	5,594.96	1,398.74	
		1991.11.01 09:30:00	0:15:00	981.67	245.42	5,723.25	1,430.81	
		1991.11.01 09:45:00	0:15:00	973.48	243.37	5,873.62	1,468.41	
		1991.11.01 10:00:00	0:15:00	962.81	240.70	5,870.15	1,467.54	
		1991.11.01 10:15:00	0:15:00	953.38	238.35	5,883.80	1,470.95	
		1991.11.01 10:30:00	0:15:00	915.41	228.85	5,872.13	1,468.03	
		1991.11.01 10:45:00	0:15:00	885.14	221.28	5,967.42	1,491.86	
		1991.11.01 11:00:00	0:15:00	855.86	213.96	6,083.31	1,520.83	
		1991.11.01 11:15:00	0:15:00	836.01	209.00	6,286.29	1,571.57	
		1991.11.01 11:30:00	0:15:00	802.51	200.63	6,436.42	1,609.11	
		1991.11.01 11:45:00	0:15:00	785.14	196.28	6,724.52	1,681.13	
		1991.11.01 12:00:00	0:15:00	840.72	210.18	6,909.14	1,727.28	
		1991.11.01 12:15:00	0:15:00	944.20	236.05	6,934.95	1,733.74	
		1991.11.01 12:30:00	0:15:00	1,187.13	296.78	6,804.92	1,701.23	
		1991.11.01 12:45:00	0:15:00	1,517.91	379.48	6,925.02	1,731.26	
		1991.11.01 13:00:00	0:15:00	1,859.86	464.96	7,105.42	1,776.36	
		1991.11.01 13:15:00	0:15:00	2,245.48	561.37	7,352.08	1,838.02	
		1991.11.01 13:30:00	0:15:00	2,640.03	660.01	7,562.26	1,890.57	
		1991.11.01 13:45:00	0:15:00	3,068.58	767.14	7,968.97	1,992.24	
		1991.11.01 14:00:00	0:15:00	3,524.92	881.23	8,705.22	2,176.31	
		1991.11.01 14:15:00	0:15:00	4,029.40	1,007.35	9,641.48	2,410.37	
		1991.11.01 14:30:00	0:15:00	4,570.36	1,142.59	10,094.84	2,523.71	
		1991.11.01 14:45:00	0:15:00	5,243.08	1,310.77	9,433.03	2,358.26	
		1991.11.01 15:00:00	0:15:00	6,171.90	1,542.97	8,498.52	2,124.63	
		1991.11.01 15:15:00	0:15:00	7,484.34	1,871.09	7,056.54	1,764.13	
		1991.11.01 15:30:00	0:15:00	9,149.65	2,287.41	5,478.57	1,369.64	
		1991.11.01 15:45:00	0:15:00	10,472.77	2,618.19	4,203.35	1,050.84	
		1991.11.01 16:00:00	0:12:36	11,890.92	2,497.09	2,785.19	584.89	
		1991.11.01 16:10:12	0:05:24	8:33:36	13,398.16	1,205.84	1,277.95	115.02
8-Nov	1-Feb	1991.11.08 07:43:48	0:00:36	11,964.38	119.64	1,216.66	12.17	
		1991.11.08 07:45:00	0:07:48	11,771.81	1,530.34	1,251.90	162.75	
		1991.11.08 08:00:00	0:15:00	7,892.29	1,973.07	3,082.47	770.62	
		1991.11.08 08:15:00	0:15:00	4,875.08	1,218.77	4,326.43	1,081.61	
		1991.11.08 08:30:00	0:15:00	3,038.06	759.51	4,858.46	1,214.61	
		1991.11.08 08:45:00	0:15:00	1,790.87	447.72	5,344.58	1,336.14	
		1991.11.08 09:00:00	0:15:00	1,182.17	295.54	5,748.31	1,437.08	
		1991.11.08 09:15:00	0:15:00	1,064.55	266.14	6,050.30	1,512.58	
		1991.11.08 09:30:00	0:15:00	1,044.20	261.05	6,223.01	1,555.75	
		1991.11.08 09:45:00	0:15:00	1,031.30	257.82	6,400.44	1,600.11	
		1991.11.08 10:00:00	0:15:00	1,019.14	254.78	6,433.44	1,608.36	
		1991.11.08 10:15:00	0:15:00	1,014.42	253.61	6,459.00	1,614.75	
		1991.11.08 10:30:00	0:15:00	973.23	243.31	6,462.72	1,615.68	
		1991.11.08 10:45:00	0:15:00	939.98	235.00	6,547.84	1,636.96	
		1991.11.08 11:00:00	0:15:00	907.47	226.87	6,674.89	1,668.72	
		1991.11.08 11:15:00	0:15:00	890.10	222.53	6,894.99	1,723.75	
		1991.11.08 11:30:00	0:15:00	853.62	213.41	7,063.73	1,765.93	
		1991.11.08 11:45:00	0:15:00	836.25	209.06	7,397.49	1,849.37	
		1991.11.08 12:00:00	0:15:00	897.05	224.26	7,588.56	1,897.14	
		1991.11.08 12:15:00	0:15:00	1,006.73	251.68	7,608.91	1,902.23	
		1991.11.08 12:30:00	0:15:00	1,257.36	314.34	7,461.51	1,865.38	
		1991.11.08 12:45:00	0:15:00	1,591.11	397.78	7,598.74	1,899.68	
		1991.11.08 13:00:00	0:15:00	1,941.75	485.44	7,723.55	1,930.89	
		1991.11.08 13:15:00	0:15:00	2,327.86	581.97	7,911.15	1,977.79	
		1991.11.08 13:30:00	0:15:00	2,723.41	680.85	8,059.79	2,014.95	
		1991.11.08 13:45:00	0:15:00	3,155.43	788.86	8,534.50	2,133.62	
		1991.11.08 14:00:00	0:15:00	3,610.53	902.63	9,250.15	2,312.54	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.11.08 14:15:00	0:15:00	4,106.82	1,026.71	10,167.55	2,541.89	
		1991.11.08 14:30:00	0:15:00	4,649.77	1,162.44	10,026.35	2,506.59	
		1991.11.08 14:45:00	0:15:00	5,373.11	1,343.28	9,303.01	2,325.75	
		1991.11.08 15:00:00	0:15:00	6,422.52	1,605.63	8,253.60	2,063.40	
		1991.11.08 15:15:00	0:15:00	7,807.68	1,951.92	6,868.44	1,717.11	
		1991.11.08 15:30:00	0:15:00	9,337.75	2,334.44	5,338.37	1,334.59	
		1991.11.08 15:45:00	0:15:00	10,759.87	2,689.97	3,916.25	979.06	
		1991.11.08 16:00:00	0:09:00	12,544.79	1,881.72	2,131.33	319.70	
		1991.11.08 16:03:00	0:01:48	8:19:12 13,089.22	392.68	1,586.90	47.61	55,936.85
15-Nov	25-Jan	1991.11.15 07:51:00	0:04:48	12,515.76	1,001.26	987.87	79.03	
		1991.11.15 08:00:00	0:12:00	10,808.01	2,161.60	1,239.49	247.90	
		1991.11.15 08:15:00	0:15:00	6,510.62	1,627.65	3,693.16	923.29	
		1991.11.15 08:30:00	0:15:00	3,605.81	901.45	5,048.29	1,262.07	
		1991.11.15 08:45:00	0:15:00	2,183.19	545.80	5,615.30	1,403.83	
		1991.11.15 09:00:00	0:15:00	1,359.35	339.84	6,058.00	1,514.50	
		1991.11.15 09:15:00	0:15:00	1,129.56	282.39	6,460.74	1,615.18	
		1991.11.15 09:30:00	0:15:00	1,106.24	276.56	6,677.62	1,669.40	
		1991.11.15 09:45:00	0:15:00	1,091.84	272.96	6,884.82	1,721.21	
		1991.11.15 10:00:00	0:15:00	1,075.47	268.87	6,980.36	1,745.09	
		1991.11.15 10:15:00	0:15:00	1,065.54	266.39	7,014.60	1,753.65	
		1991.11.15 10:30:00	0:15:00	1,027.33	256.83	7,005.92	1,751.48	
		1991.11.15 10:45:00	0:15:00	993.58	248.39	7,099.47	1,774.87	
		1991.11.15 11:00:00	0:15:00	957.85	239.46	7,237.68	1,809.42	
		1991.11.15 11:15:00	0:15:00	939.48	234.87	7,473.17	1,868.29	
		1991.11.15 11:30:00	0:15:00	906.98	226.74	7,658.29	1,914.57	
		1991.11.15 11:45:00	0:15:00	886.63	221.66	8,025.55	2,006.39	
		1991.11.15 12:00:00	0:15:00	944.45	236.11	8,227.54	2,056.89	
		1991.11.15 12:15:00	0:15:00	1,062.31	265.58	8,253.84	2,063.46	
		1991.11.15 12:30:00	0:15:00	1,309.72	327.43	8,102.97	2,025.74	
		1991.11.15 12:45:00	0:15:00	1,642.48	410.62	8,222.08	2,055.52	
		1991.11.15 13:00:00	0:15:00	1,995.35	498.84	8,285.36	2,071.34	
		1991.11.15 13:15:00	0:15:00	2,382.21	595.55	8,414.39	2,103.60	
		1991.11.15 13:30:00	0:15:00	2,781.47	695.37	8,509.93	2,127.48	
		1991.11.15 13:45:00	0:15:00	3,208.04	802.01	9,017.14	2,254.29	
		1991.11.15 14:00:00	0:15:00	3,659.17	914.79	9,679.94	2,419.99	
		1991.11.15 14:15:00	0:15:00	4,147.27	1,036.82	10,528.85	2,632.21	
		1991.11.15 14:30:00	0:15:00	4,696.17	1,174.04	9,979.95	2,494.99	
		1991.11.15 14:45:00	0:15:00	5,457.48	1,364.37	9,218.64	2,304.66	
		1991.11.15 15:00:00	0:15:00	6,597.47	1,649.37	8,078.65	2,019.66	
		1991.11.15 15:15:00	0:15:00	7,995.03	1,998.76	6,681.09	1,670.27	
		1991.11.15 15:30:00	0:15:00	9,433.53	2,358.38	5,242.59	1,310.65	
		1991.11.15 15:45:00	0:13:48	10,989.90	2,527.68	3,686.21	847.83	
		1991.11.15 15:57:36	0:06:36	12,898.65	1,418.85	1,777.47	195.52	
		1991.11.22 07:57:36	0:01:12	8:08:24 13,461.44	269.23	277.18	5.54	57,719.80
22-Nov	18-Jan	1991.11.22 08:00:00	0:09:00	13,124.71	1,968.71	244.92	36.74	
		1991.11.22 08:15:00	0:15:00	9,575.97	2,393.99	1,696.58	424.14	
		1991.11.22 08:30:00	0:15:00	4,830.66	1,207.67	4,689.22	1,172.31	
		1991.11.22 08:45:00	0:15:00	2,595.86	648.97	5,709.60	1,427.40	
		1991.11.22 09:00:00	0:15:00	1,582.43	395.61	6,214.58	1,553.64	
		1991.11.22 09:15:00	0:15:00	1,198.55	299.64	6,673.90	1,668.47	
		1991.11.22 09:30:00	0:15:00	1,171.00	292.75	7,072.67	1,768.17	
		1991.11.22 09:45:00	0:15:00	1,150.65	287.66	7,310.39	1,827.60	
		1991.11.22 10:00:00	0:15:00	1,127.83	281.96	7,442.65	1,860.66	
		1991.11.22 10:15:00	0:15:00	1,117.65	279.41	7,508.16	1,877.04	
		1991.11.22 10:30:00	0:15:00	1,084.40	271.10	7,507.42	1,876.86	
		1991.11.22 10:45:00	0:15:00	1,044.20	261.05	7,603.70	1,900.93	
		1991.11.22 11:00:00	0:15:00	1,005.24	251.31	7,728.27	1,932.07	
		1991.11.22 11:15:00	0:15:00	985.64	246.41	7,986.34	1,996.59	
		1991.11.22 11:30:00	0:15:00	955.61	238.90	8,192.80	2,048.20	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.11.22 11:45:00	0:15:00	936.50	234.13	8,565.76	2,141.44	
		1991.11.22 12:00:00	0:15:00	987.87	246.97	8,810.19	2,202.55	
		1991.11.22 12:15:00	0:15:00	1,101.77	275.44	8,841.45	2,210.36	
		1991.11.22 12:30:00	0:15:00	1,341.23	335.31	8,671.72	2,167.93	
		1991.11.22 12:45:00	0:15:00	1,670.27	417.57	8,770.73	2,192.68	
		1991.11.22 13:00:00	0:15:00	2,019.91	504.98	8,765.27	2,191.32	
		1991.11.22 13:15:00	0:15:00	2,409.25	602.31	8,838.23	2,209.56	
		1991.11.22 13:30:00	0:15:00	2,804.80	701.20	8,888.35	2,222.09	
		1991.11.22 13:45:00	0:15:00	3,220.44	805.11	9,389.11	2,347.28	
		1991.11.22 14:00:00	0:15:00	3,667.35	916.84	9,993.85	2,498.46	
		1991.11.22 14:15:00	0:15:00	4,136.35	1,034.09	10,539.77	2,634.94	
		1991.11.22 14:30:00	0:15:00	4,690.46	1,172.62	9,985.66	2,496.41	
		1991.11.22 14:45:00	0:15:00	5,505.37	1,376.34	9,170.74	2,292.69	
		1991.11.22 15:00:00	0:15:00	6,635.43	1,658.86	8,040.69	2,010.17	
		1991.11.22 15:15:00	0:15:00	8,018.85	2,004.71	6,657.27	1,664.32	
		1991.11.22 15:30:00	0:15:00	9,536.02	2,384.00	5,140.10	1,285.03	
		1991.11.22 15:45:00	0:12:00	11,207.03	2,241.41	3,469.09	693.82	
		1991.11.22 15:54:00	0:04:48	7:55:48	13,074.83	1,045.99	1,601.29	
								58,959.95
29-Nov	11-Jan	1991.11.29 08:04:12	0:05:24	14,134.41	1,272.10	9.43	0.85	
		1991.11.29 08:15:00	0:12:36	11,493.15	2,413.56	874.96	183.74	
		1991.11.29 08:30:00	0:15:00	7,586.83	1,896.71	2,894.38	723.60	
		1991.11.29 08:45:00	0:15:00	3,437.08	859.27	5,464.68	1,366.17	
		1991.11.29 09:00:00	0:15:00	1,882.69	470.67	6,238.15	1,559.54	
		1991.11.29 09:15:00	0:15:00	1,301.03	325.26	6,735.44	1,683.86	
		1991.11.29 09:30:00	0:15:00	1,215.67	303.92	7,162.00	1,790.50	
		1991.11.29 09:45:00	0:15:00	1,202.52	300.63	7,596.50	1,899.13	
		1991.11.29 10:00:00	0:15:00	1,175.97	293.99	7,806.68	1,951.67	
		1991.11.29 10:15:00	0:15:00	1,163.31	290.83	7,931.25	1,982.81	
		1991.11.29 10:30:00	0:15:00	1,136.51	284.13	7,931.25	1,982.81	
		1991.11.29 10:45:00	0:15:00	1,091.60	272.90	8,032.74	2,008.19	
		1991.11.29 11:00:00	0:15:00	1,051.15	262.79	8,128.53	2,032.13	
		1991.11.29 11:15:00	0:15:00	1,025.84	256.46	8,408.44	2,102.11	
		1991.11.29 11:30:00	0:15:00	997.30	249.33	8,625.32	2,156.33	
		1991.11.29 11:45:00	0:15:00	977.20	244.30	8,967.26	2,241.82	
		1991.11.29 12:00:00	0:15:00	1,006.73	251.68	9,305.74	2,326.43	
		1991.11.29 12:15:00	0:15:00	1,114.67	278.67	9,360.58	2,340.14	
		1991.11.29 12:30:00	0:15:00	1,349.17	337.29	9,182.65	2,295.66	
		1991.11.29 12:45:00	0:15:00	1,673.25	418.31	9,232.78	2,308.20	
		1991.11.29 13:00:00	0:15:00	2,025.12	506.28	9,175.71	2,293.93	
		1991.11.29 13:15:00	0:15:00	2,405.03	601.26	9,197.54	2,299.39	
		1991.11.29 13:30:00	0:15:00	2,796.61	699.15	9,205.48	2,301.37	
		1991.11.29 13:45:00	0:15:00	3,203.82	800.95	9,661.33	2,415.33	
		1991.11.29 14:00:00	0:15:00	3,636.34	909.08	10,205.02	2,551.25	
		1991.11.29 14:15:00	0:15:00	4,091.44	1,022.86	10,584.68	2,646.17	
		1991.11.29 14:30:00	0:15:00	4,639.59	1,159.90	10,036.53	2,509.13	
		1991.11.29 14:45:00	0:15:00	5,488.00	1,372.00	9,188.11	2,297.03	
		1991.11.29 15:00:00	0:15:00	6,609.13	1,652.28	8,066.99	2,016.75	
		1991.11.29 15:15:00	0:15:00	7,915.12	1,978.78	6,761.00	1,690.25	
		1991.11.29 15:30:00	0:15:00	9,525.84	2,381.46	5,150.28	1,287.57	
		1991.11.29 15:45:00	0:10:48	11,552.70	2,079.49	3,123.42	562.22	
		1991.11.29 15:51:36	0:03:00	7:46:48	13,349.28	667.46	1,326.84	
								59,872.41
6-Dec	4-Jan	1991.12.06 08:15:00	0:10:12	13,526.46	2,299.50	151.12	25.69	
		1991.12.06 08:30:00	0:15:00	9,531.05	2,382.76	1,883.93	470.98	
		1991.12.06 08:45:00	0:15:00	5,703.64	1,425.91	3,946.02	986.51	
		1991.12.06 09:00:00	0:15:00	2,226.37	556.59	6,194.73	1,548.68	
		1991.12.06 09:15:00	0:15:00	1,424.36	356.09	6,705.91	1,676.48	
		1991.12.06 09:30:00	0:15:00	1,238.75	309.69	7,159.52	1,789.88	
		1991.12.06 09:45:00	0:15:00	1,237.51	309.38	7,593.53	1,898.38	
		1991.12.06 10:00:00	0:15:00	1,215.92	303.98	8,000.98	2,000.25	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.12.06 10:15:00	0:15:00	1,200.78	300.20	8,257.81	2,064.45	
		1991.12.06 10:30:00	0:15:00	1,179.69	294.92	8,242.43	2,060.61	
		1991.12.06 10:45:00	0:15:00	1,134.77	283.69	8,354.34	2,088.59	
		1991.12.06 11:00:00	0:15:00	1,089.86	272.47	8,421.84	2,105.46	
		1991.12.06 11:15:00	0:15:00	1,060.08	265.02	8,721.10	2,180.28	
		1991.12.06 11:30:00	0:15:00	1,034.52	258.63	8,945.43	2,236.36	
		1991.12.06 11:45:00	0:15:00	1,008.96	252.24	9,317.15	2,329.29	
		1991.12.06 12:00:00	0:15:00	1,040.23	260.06	9,697.56	2,424.39	
		1991.12.06 12:15:00	0:15:00	1,140.73	285.18	9,743.71	2,435.93	
		1991.12.06 12:30:00	0:15:00	1,340.24	335.06	9,579.94	2,394.98	
		1991.12.06 12:45:00	0:15:00	1,647.44	411.86	9,602.27	2,400.57	
		1991.12.06 13:00:00	0:15:00	1,997.58	499.39	9,509.22	2,377.30	
		1991.12.06 13:15:00	0:15:00	2,374.26	593.57	9,485.89	2,371.47	
		1991.12.06 13:30:00	0:15:00	2,756.66	689.16	9,436.01	2,359.00	
		1991.12.06 13:45:00	0:15:00	3,160.89	790.22	9,834.29	2,458.57	
		1991.12.06 14:00:00	0:15:00	3,582.24	895.56	10,322.64	2,580.66	
		1991.12.06 14:15:00	0:15:00	4,027.17	1,006.79	10,648.95	2,662.24	
		1991.12.06 14:30:00	0:15:00	4,551.50	1,137.88	10,124.62	2,531.15	
		1991.12.06 14:45:00	0:15:00	5,390.98	1,347.75	9,285.14	2,321.29	
		1991.12.06 15:00:00	0:15:00	6,466.20	1,616.55	8,209.92	2,052.48	
		1991.12.06 15:15:00	0:15:00	7,744.15	1,936.04	6,931.97	1,732.99	
		1991.12.06 15:30:00	0:15:00	9,412.44	2,353.11	5,263.68	1,315.92	
		1991.12.06 15:45:00	0:10:12	11,793.40	2,004.88	2,882.72	490.06	
		1991.12.06 15:51:00	0:03:00	7:38:24	13,537.62	676.88	1,138.50	60,427.80
13-Dec	27-Dec	1991.12.13 08:30:00	0:15:00	11,016.95	2,754.24	1,243.71	310.93	
		1991.12.13 08:45:00	0:15:00	7,584.10	1,896.02	2,771.30	692.83	
		1991.12.13 09:00:00	0:15:00	3,301.59	825.40	5,518.28	1,379.57	
		1991.12.13 09:15:00	0:15:00	1,622.38	405.60	6,627.49	1,656.87	
		1991.12.13 09:30:00	0:15:00	1,256.86	314.22	7,095.50	1,773.87	
		1991.12.13 09:45:00	0:15:00	1,253.64	313.41	7,548.86	1,887.22	
		1991.12.13 10:00:00	0:15:00	1,243.21	310.80	7,949.12	1,987.28	
		1991.12.13 10:15:00	0:15:00	1,226.84	306.71	8,369.23	2,092.31	
		1991.12.13 10:30:00	0:15:00	1,205.25	301.31	8,447.65	2,111.91	
		1991.12.13 10:45:00	0:15:00	1,167.28	291.82	8,556.58	2,139.15	
		1991.12.13 11:00:00	0:15:00	1,117.65	279.41	8,613.16	2,153.29	
		1991.12.13 11:15:00	0:15:00	1,086.39	271.60	8,889.35	2,222.34	
		1991.12.13 11:30:00	0:15:00	1,058.59	264.65	9,121.36	2,280.34	
		1991.12.13 11:45:00	0:15:00	1,037.25	259.31	9,464.30	2,366.08	
		1991.12.13 12:00:00	0:15:00	1,039.49	259.87	9,882.68	2,470.67	
		1991.12.13 12:15:00	0:15:00	1,134.53	283.63	10,017.92	2,504.48	
		1991.12.13 12:30:00	0:15:00	1,306.24	326.56	9,863.57	2,465.89	
		1991.12.13 12:45:00	0:15:00	1,603.52	400.88	9,852.65	2,463.16	
		1991.12.13 13:00:00	0:15:00	1,945.47	486.37	9,733.04	2,433.26	
		1991.12.13 13:15:00	0:15:00	2,319.92	579.98	9,679.69	2,419.92	
		1991.12.13 13:30:00	0:15:00	2,695.86	673.97	9,578.70	2,394.67	
		1991.12.13 13:45:00	0:15:00	3,092.65	773.16	9,912.21	2,478.05	
		1991.12.13 14:00:00	0:15:00	3,501.84	875.46	10,331.82	2,582.96	
		1991.12.13 14:15:00	0:15:00	3,944.53	986.13	10,731.58	2,682.90	
		1991.12.13 14:30:00	0:15:00	4,439.59	1,109.90	10,236.53	2,559.13	
		1991.12.13 14:45:00	0:15:00	5,222.98	1,305.75	9,453.13	2,363.28	
		1991.12.13 15:00:00	0:15:00	6,258.00	1,564.50	8,418.12	2,104.53	
		1991.12.13 15:15:00	0:15:00	7,504.19	1,876.05	7,171.93	1,792.98	
		1991.12.13 15:30:00	0:15:00	9,145.93	2,286.48	5,530.19	1,382.55	
		1991.12.13 15:45:00	0:10:48	11,490.91	2,068.36	3,185.21	573.34	
		1991.12.13 15:52:11	0:03:36	7:29:24	13,691.97	821.52	984.15	60,784.79
20-Dec	No Mirror	1991.12.20 08:30:00	0:12:36	12,302.60	2,583.55	690.10	144.92	
		1991.12.20 08:45:00	0:15:00	8,561.30	2,140.32	2,345.73	586.43	
		1991.12.20 09:00:00	0:15:00	4,447.78	1,111.94	4,754.24	1,188.56	
		1991.12.20 09:15:00	0:15:00	1,839.26	459.82	6,523.27	1,630.82	

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.12.20 09:30:00	0:15:00	1,303.26	325.82	7,005.67	1,751.42	
		1991.12.20 09:45:00	0:15:00	1,255.62	313.91	7,462.26	1,865.56	
		1991.12.20 10:00:00	0:15:00	1,253.64	313.41	7,874.68	1,968.67	
		1991.12.20 10:15:00	0:15:00	1,240.98	310.25	8,289.08	2,072.27	
		1991.12.20 10:30:00	0:15:00	1,216.91	304.23	8,527.30	2,131.83	
		1991.12.20 10:45:00	0:15:00	1,186.14	296.54	8,620.36	2,155.09	
		1991.12.20 11:00:00	0:15:00	1,135.77	283.94	8,677.93	2,169.48	
		1991.12.20 11:15:00	0:15:00	1,100.78	275.19	8,917.14	2,229.28	
		1991.12.20 11:30:00	0:15:00	1,071.50	267.87	9,144.44	2,286.11	
		1991.12.20 11:45:00	0:15:00	1,050.65	262.66	9,488.87	2,372.22	
		1991.12.20 12:00:00	0:15:00	1,031.54	257.89	9,911.96	2,477.99	
		1991.12.20 12:15:00	0:15:00	1,121.62	280.41	10,123.13	2,530.78	
		1991.12.20 12:30:00	0:15:00	1,264.80	316.20	10,001.04	2,500.26	
		1991.12.20 12:45:00	0:15:00	1,540.99	385.25	9,952.40	2,488.10	
		1991.12.20 13:00:00	0:15:00	1,874.99	468.75	9,841.48	2,460.37	
		1991.12.20 13:15:00	0:15:00	2,243.00	560.75	9,764.56	2,441.14	
		1991.12.20 13:30:00	0:15:00	2,617.70	654.42	9,648.67	2,412.17	
		1991.12.20 13:45:00	0:15:00	3,007.78	751.95	9,892.85	2,473.21	
		1991.12.20 14:00:00	0:15:00	3,416.48	854.12	10,289.64	2,572.41	
		1991.12.20 14:15:00	0:15:00	3,850.24	962.56	10,825.88	2,706.47	
		1991.12.20 14:30:00	0:15:00	4,320.97	1,080.24	10,355.15	2,588.79	
		1991.12.20 14:45:00	0:15:00	5,006.35	1,251.59	9,669.77	2,417.44	
		1991.12.20 15:00:00	0:15:00	6,026.73	1,506.68	8,649.39	2,162.35	
		1991.12.20 15:15:00	0:15:00	7,213.37	1,803.34	7,462.75	1,865.69	
		1991.12.20 15:30:00	0:15:00	8,789.59	2,197.40	5,886.53	1,471.63	
		1991.12.20 15:45:00	0:12:36	10,864.34	2,281.51	3,811.78	800.47	
		1991.12.20 15:54:36	0:04:48	7:30:00 13,682.79	1,094.62	993.33	79.47	61,001.39
						3,519,722.26	872,879.72	



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE
1979 Mission Street - Marshall Elementary School Playground

EXHIBIT D.1

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	1991.06.21 06:46:48	0:06:36	11,596.87	1,275.66	0.00	0.00	3,079.25	338.72
172	1991.06.21 07:00:00	0:13:48	9,700.78	2,231.18	0.00	0.00	4,975.33	1,144.33
172	1991.06.21 07:15:00	0:15:00	7,368.21	1,842.05	0.00	0.00	7,307.91	1,826.98
172	1991.06.21 07:30:00	0:15:00	5,296.93	1,324.23	0.00	0.00	9,379.19	2,344.80
172	1991.06.21 07:45:00	0:15:00	3,550.23	887.56	0.00	0.00	11,125.89	2,781.47
172	1991.06.21 08:00:00	0:15:00	2,267.31	566.83	0.00	0.00	12,408.81	3,102.20
172	1991.06.21 08:15:00	0:15:00	1,346.94	336.74	0.00	0.00	13,329.18	3,332.30
172	1991.06.21 08:30:00	0:15:00	702.50	175.63	0.00	0.00	13,973.62	3,493.40
172	1991.06.21 08:45:00	0:15:00	308.69	77.17	0.00	0.00	14,367.42	3,591.86
172	1991.06.21 09:00:00	0:15:00	246.66	61.66	0.00	0.00	14,429.46	3,607.37
172	1991.06.21 09:15:00	0:15:00	225.81	56.45	10.17	2.54	14,440.13	3,610.03
172	1991.06.21 09:30:00	0:15:00	256.58	64.15	165.76	41.44	14,253.77	3,563.44
172	1991.06.21 09:45:00	0:15:00	287.60	71.90	313.41	78.35	14,075.11	3,518.78
172	1991.06.21 10:00:00	0:15:00	313.16	78.29	425.82	106.46	13,937.14	3,484.28
172	1991.06.21 10:15:00	0:15:00	338.97	84.74	536.49	134.12	13,800.66	3,450.16
172	1991.06.21 10:30:00	0:15:00	358.08	89.52	616.64	154.16	13,701.40	3,425.35
172	1991.06.21 10:45:00	0:15:00	371.23	92.81	696.30	174.08	13,608.59	3,402.15
172	1991.06.21 11:00:00	0:15:00	365.52	91.38	740.97	185.24	13,569.63	3,392.41
172	1991.06.21 11:15:00	0:15:00	361.80	90.45	803.00	200.75	13,511.32	3,377.83
172	1991.06.21 11:30:00	0:15:00	353.36	88.34	842.71	210.68	13,480.05	3,370.01
172	1991.06.21 11:45:00	0:15:00	343.68	85.92	908.46	227.12	13,423.97	3,355.99
172	1991.06.21 12:00:00	0:15:00	329.79	82.45	932.29	233.07	13,414.05	3,353.51
172	1991.06.21 12:15:00	0:15:00	318.37	79.59	997.05	249.26	13,360.69	3,340.17
172	1991.06.21 12:30:00	0:15:00	292.32	73.08	1,004.50	251.12	13,379.31	3,344.83
172	1991.06.21 12:45:00	0:15:00	268.49	67.12	1,063.31	265.83	13,344.32	3,336.08
172	1991.06.21 13:00:00	0:15:00	239.71	59.93	1,051.40	262.85	13,385.01	3,346.25
172	1991.06.21 13:15:00	0:15:00	240.21	60.05	1,094.57	273.64	13,341.34	3,335.34
172	1991.06.21 13:30:00	0:15:00	274.95	68.74	1,070.26	267.56	13,330.92	3,332.73
172	1991.06.21 13:45:00	0:15:00	337.73	84.43	1,070.26	267.56	13,268.14	3,317.03
172	1991.06.21 14:00:00	0:15:00	410.43	102.61	991.10	247.77	13,274.59	3,318.65
172	1991.06.21 14:15:00	0:15:00	606.97	151.74	964.30	241.07	13,104.86	3,276.21
172	1991.06.21 14:30:00	0:15:00	814.17	203.54	876.45	219.11	12,985.50	3,246.37
172	1991.06.21 14:45:00	0:15:00	1,029.81	257.45	836.25	209.06	12,810.06	3,202.51
172	1991.06.21 15:00:00	0:15:00	1,242.22	310.56	766.28	191.57	12,667.62	3,166.91
172	1991.06.21 15:15:00	0:15:00	1,443.47	360.87	692.83	173.21	12,539.83	3,134.96
172	1991.06.21 15:30:00	0:15:00	1,635.04	408.76	563.29	140.82	12,477.79	3,119.45
172	1991.06.21 15:45:00	0:15:00	1,868.29	467.07	437.98	109.50	12,369.85	3,092.46
172	1991.06.21 16:00:00	0:15:00	2,100.31	525.08	288.10	72.02	12,287.71	3,071.93
172	1991.06.21 16:15:00	0:15:00	2,346.47	586.62	124.57	31.14	12,205.08	3,051.27
172	1991.06.21 16:30:00	0:15:00	2,603.80	650.95	0.00	0.00	12,072.32	3,018.08
172	1991.06.21 16:45:00	0:15:00	2,919.69	729.92	0.00	0.00	11,756.43	2,939.11
172	1991.06.21 17:00:00	0:15:00	3,419.21	854.80	0.00	0.00	11,256.91	2,814.23
172	1991.06.21 17:15:00	0:15:00	4,121.71	1,030.43	0.00	0.00	10,554.41	2,638.60
172	1991.06.21 17:30:00	0:15:00	4,961.19	1,240.30	0.00	0.00	9,714.93	2,428.73
172	1991.06.21 17:45:00	0:15:00	5,861.46	1,465.37	0.00	0.00	8,814.65	2,203.66
172	1991.06.21 18:00:00	0:15:00	6,882.34	1,720.59	0.00	0.00	7,793.78	1,948.45
172	1991.06.21 18:15:00	0:15:00	8,039.44	2,009.86	0.00	0.00	6,636.67	1,659.17
172	1991.06.21 18:30:00	0:15:00	9,437.50	2,359.38	0.00	0.00	5,238.62	1,309.65
172	1991.06.21 18:45:00	0:15:00	11,087.43	2,771.86	0.00	0.00	3,588.69	897.17
172	1991.06.21 19:00:00	0:15:00	12,906.09	3,226.52	0.00	0.00	1,770.03	442.51
172	1991.06.21 19:15:00	0:18:00	14,600.19	4,380.06	0.00	0.00	75.93	22.78
172	1991.06.21 19:36:00	0:10:48	14,676.12	2,641.70	0.00	0.00	0.00	0.00
179	1991.06.28 06:48:35	0:06:00	11,639.30	1,163.93	0.00	0.00	3,036.82	303.68

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
179	1991.06.28 07:00:00	0:13:12	10,092.86	2,220.43	0.00	0.00	4,583.26	1,008.32
179	1991.06.28 07:15:00	0:15:00	7,644.40	1,911.10	0.00	0.00	7,031.72	1,757.93
179	1991.06.28 07:30:00	0:15:00	5,557.49	1,389.37	0.00	0.00	9,118.63	2,279.66
179	1991.06.28 07:45:00	0:15:00	3,728.40	932.10	0.00	0.00	10,947.72	2,736.93
179	1991.06.28 08:00:00	0:15:00	2,401.56	600.39	0.00	0.00	12,274.56	3,068.64
179	1991.06.28 08:15:00	0:15:00	1,439.75	359.94	0.00	0.00	13,236.37	3,309.09
179	1991.06.28 08:30:00	0:15:00	769.50	192.38	0.00	0.00	13,906.62	3,476.65
179	1991.06.28 08:45:00	0:15:00	326.06	81.52	0.00	0.00	14,350.05	3,587.51
179	1991.06.28 09:00:00	0:15:00	247.40	61.85	0.00	0.00	14,428.72	3,607.18
179	1991.06.28 09:15:00	0:15:00	224.08	56.02	8.69	2.17	14,443.36	3,610.84
179	1991.06.28 09:30:00	0:15:00	256.58	64.15	163.03	40.76	14,256.50	3,564.13
179	1991.06.28 09:45:00	0:15:00	287.85	71.96	314.90	78.72	14,073.37	3,518.34
179	1991.06.28 10:00:00	0:15:00	314.15	78.54	429.79	107.45	13,932.18	3,483.04
179	1991.06.28 10:15:00	0:15:00	339.71	84.93	540.96	135.24	13,795.45	3,448.86
179	1991.06.28 10:30:00	0:15:00	358.82	89.71	623.34	155.84	13,693.96	3,423.49
179	1991.06.28 10:45:00	0:15:00	374.21	93.55	701.01	175.25	13,600.90	3,400.23
179	1991.06.28 11:00:00	0:15:00	369.49	92.37	745.68	186.42	13,560.95	3,390.24
179	1991.06.28 11:15:00	0:15:00	365.27	91.32	808.71	202.18	13,502.14	3,375.53
179	1991.06.28 11:30:00	0:15:00	356.34	89.09	847.17	211.79	13,472.61	3,368.15
179	1991.06.28 11:45:00	0:15:00	346.66	86.67	916.65	229.16	13,412.81	3,353.20
179	1991.06.28 12:00:00	0:15:00	333.01	83.25	943.20	235.80	13,399.90	3,349.98
179	1991.06.28 12:15:00	0:15:00	321.10	80.28	1,003.75	250.94	13,351.26	3,337.82
179	1991.06.28 12:30:00	0:15:00	297.28	74.32	1,016.41	254.10	13,362.43	3,340.61
179	1991.06.28 12:45:00	0:15:00	272.71	68.18	1,073.98	268.49	13,329.43	3,332.36
179	1991.06.28 13:00:00	0:15:00	242.94	60.73	1,064.55	266.14	13,368.64	3,342.16
179	1991.06.28 13:15:00	0:15:00	240.95	60.24	1,104.25	276.06	13,330.92	3,332.73
179	1991.06.28 13:30:00	0:15:00	272.71	68.18	1,086.88	271.72	13,316.52	3,329.13
179	1991.06.28 13:45:00	0:15:00	332.76	83.19	1,086.39	271.60	13,256.97	3,314.24
179	1991.06.28 14:00:00	0:15:00	404.98	101.24	1,008.72	252.18	13,262.43	3,315.61
179	1991.06.28 14:15:00	0:15:00	589.35	147.34	986.38	246.60	13,100.39	3,275.10
179	1991.06.28 14:30:00	0:15:00	799.28	199.82	898.54	224.63	12,978.30	3,244.58
179	1991.06.28 14:45:00	0:15:00	1,016.66	254.16	848.91	212.23	12,810.55	3,202.64
179	1991.06.28 15:00:00	0:15:00	1,229.57	307.39	783.15	195.79	12,663.40	3,165.85
179	1991.06.28 15:15:00	0:15:00	1,429.08	357.27	719.62	179.91	12,527.42	3,131.86
179	1991.06.28 15:30:00	0:15:00	1,624.12	406.03	590.34	147.59	12,461.66	3,115.42
179	1991.06.28 15:45:00	0:15:00	1,850.68	462.67	473.22	118.30	12,352.23	3,088.06
179	1991.06.28 16:00:00	0:15:00	2,084.93	521.23	321.10	80.28	12,270.09	3,067.52
179	1991.06.28 16:15:00	0:15:00	2,333.32	583.33	160.55	40.14	12,182.25	3,045.56
179	1991.06.28 16:30:00	0:15:00	2,586.43	646.61	1.74	0.43	12,087.95	3,021.99
179	1991.06.28 16:45:00	0:15:00	2,894.38	723.60	0.00	0.00	11,781.74	2,945.44
179	1991.06.28 17:00:00	0:15:00	3,355.93	838.98	0.00	0.00	11,320.19	2,830.05
179	1991.06.28 17:15:00	0:15:00	4,051.49	1,012.87	0.00	0.00	10,624.63	2,656.16
179	1991.06.28 17:30:00	0:15:00	4,898.41	1,224.60	0.00	0.00	9,777.71	2,444.43
179	1991.06.28 17:45:00	0:15:00	5,782.55	1,445.64	0.00	0.00	8,893.56	2,223.39
179	1991.06.28 18:00:00	0:15:00	6,806.16	1,701.54	0.00	0.00	7,869.96	1,967.49
179	1991.06.28 18:15:00	0:15:00	7,949.37	1,987.34	0.00	0.00	6,726.75	1,681.69
179	1991.06.28 18:30:00	0:15:00	9,326.33	2,331.58	0.00	0.00	5,349.79	1,337.45
179	1991.06.28 18:45:00	0:15:00	10,980.97	2,745.24	0.00	0.00	3,695.15	923.79
179	1991.06.28 19:00:00	0:15:00	12,816.76	3,204.19	0.00	0.00	1,859.36	464.84
179	1991.06.28 19:15:00	0:18:00	14,541.37	4,362.41	0.00	0.00	134.74	40.42
179	1991.06.28 19:36:36	0:10:48	14,676.12	2,641.70	0.00	0.00	0.00	0.00
186	1991.07.05 06:52:12	0:03:36	11,724.67	703.48	0.00	0.00	2,951.45	177.09
186	1991.07.05 07:00:00	0:11:24	10,692.87	2,031.65	0.00	0.00	3,983.25	756.82
186	1991.07.05 07:15:00	0:15:00	8,120.09	2,030.02	0.00	0.00	6,556.03	1,639.01
186	1991.07.05 07:30:00	0:15:00	5,942.36	1,485.59	0.00	0.00	8,733.76	2,183.44
186	1991.07.05 07:45:00	0:15:00	3,997.39	999.35	0.00	0.00	10,678.73	2,669.68
186	1991.07.05 08:00:00	0:15:00	2,588.17	647.04	0.00	0.00	12,087.95	3,021.99

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
186	1991.07.05 08:15:00	0:15:00	1,557.12	389.28	0.00	0.00	13,119.00	3,279.75
186	1991.07.05 08:30:00	0:15:00	846.68	211.67	0.00	0.00	13,829.44	3,457.36
186	1991.07.05 08:45:00	0:15:00	342.44	85.61	0.00	0.00	14,333.68	3,583.42
186	1991.07.05 09:00:00	0:15:00	242.44	60.61	0.00	0.00	14,433.68	3,608.42
186	1991.07.05 09:15:00	0:15:00	231.27	57.82	31.02	7.76	14,413.83	3,603.46
186	1991.07.05 09:30:00	0:15:00	263.28	65.82	193.55	48.39	14,219.28	3,554.82
186	1991.07.05 09:45:00	0:15:00	294.05	73.51	353.11	88.28	14,028.95	3,507.24
186	1991.07.05 10:00:00	0:15:00	319.61	79.90	469.49	117.37	13,887.01	3,471.75
186	1991.07.05 10:15:00	0:15:00	345.67	86.42	579.92	144.98	13,750.53	3,437.63
186	1991.07.05 10:30:00	0:15:00	364.03	91.01	659.57	164.89	13,652.51	3,413.13
186	1991.07.05 10:45:00	0:15:00	384.88	96.22	728.56	182.14	13,562.69	3,390.67
186	1991.07.05 11:00:00	0:15:00	379.42	94.85	773.97	193.49	13,522.73	3,380.68
186	1991.07.05 11:15:00	0:15:00	374.21	93.55	835.26	208.82	13,466.65	3,366.66
186	1991.07.05 11:30:00	0:15:00	363.53	90.88	880.42	220.11	13,432.16	3,358.04
186	1991.07.05 11:45:00	0:15:00	352.12	88.03	950.15	237.54	13,373.85	3,343.46
186	1991.07.05 12:00:00	0:15:00	337.48	84.37	978.44	244.61	13,360.20	3,340.05
186	1991.07.05 12:15:00	0:15:00	329.29	82.32	1,042.71	260.68	13,304.12	3,326.03
186	1991.07.05 12:30:00	0:15:00	306.21	76.55	1,056.61	264.15	13,313.30	3,328.33
186	1991.07.05 12:45:00	0:15:00	280.90	70.23	1,112.94	278.23	13,282.28	3,320.57
186	1991.07.05 13:00:00	0:15:00	251.37	62.84	1,105.49	276.37	13,319.25	3,329.81
186	1991.07.05 13:15:00	0:15:00	244.42	61.11	1,145.69	286.42	13,286.00	3,321.50
186	1991.07.05 13:30:00	0:15:00	273.46	68.36	1,137.50	284.38	13,265.16	3,316.29
186	1991.07.05 13:45:00	0:15:00	334.01	83.50	1,137.01	284.25	13,205.11	3,301.28
186	1991.07.05 14:00:00	0:15:00	402.99	100.75	1,062.07	265.52	13,211.06	3,302.77
186	1991.07.05 14:15:00	0:15:00	583.14	145.79	1,041.22	260.31	13,051.75	3,262.94
186	1991.07.05 14:30:00	0:15:00	795.06	198.77	948.91	237.23	12,932.15	3,233.04
186	1991.07.05 14:45:00	0:15:00	1,014.42	253.61	896.06	224.01	12,765.64	3,191.41
186	1991.07.05 15:00:00	0:15:00	1,230.31	307.58	818.88	204.72	12,626.93	3,156.73
186	1991.07.05 15:15:00	0:15:00	1,435.53	358.88	769.01	192.25	12,471.59	3,117.90
186	1991.07.05 15:30:00	0:15:00	1,632.06	408.02	654.11	163.53	12,389.95	3,097.49
186	1991.07.05 15:45:00	0:15:00	1,858.86	464.72	540.71	135.18	12,276.54	3,069.14
186	1991.07.05 16:00:00	0:15:00	2,096.34	524.09	389.84	97.46	12,189.94	3,047.49
186	1991.07.05 16:15:00	0:15:00	2,345.98	586.49	235.99	59.00	12,094.16	3,023.54
186	1991.07.05 16:30:00	0:15:00	2,602.06	650.52	27.30	6.82	12,046.76	3,011.69
186	1991.07.05 16:45:00	0:15:00	2,896.12	724.03	0.00	0.00	11,780.00	2,945.00
186	1991.07.05 17:00:00	0:15:00	3,338.31	834.58	0.00	0.00	11,337.81	2,834.45
186	1991.07.05 17:15:00	0:15:00	4,022.95	1,005.74	0.00	0.00	10,653.17	2,663.29
186	1991.07.05 17:30:00	0:15:00	4,879.05	1,219.76	0.00	0.00	9,797.07	2,449.27
186	1991.07.05 17:45:00	0:15:00	5,748.81	1,437.20	0.00	0.00	8,927.31	2,231.83
186	1991.07.05 18:00:00	0:15:00	6,777.37	1,694.34	0.00	0.00	7,898.75	1,974.69
186	1991.07.05 18:15:00	0:15:00	7,960.78	1,990.20	0.00	0.00	6,715.34	1,678.83
186	1991.07.05 18:30:00	0:15:00	9,387.13	2,346.78	0.00	0.00	5,288.99	1,322.25
186	1991.07.05 18:45:00	0:15:00	11,045.24	2,761.31	0.00	0.00	3,630.88	907.72
186	1991.07.05 19:00:00	0:15:00	12,854.48	3,213.62	0.00	0.00	1,821.64	455.41
186	1991.07.05 19:15:00	0:18:00	14,586.79	4,376.04	0.00	0.00	89.33	26.80
186	1991.07.05 19:36:00	0:10:48	14,676.12	2,641.70	0.00	0.00	0.00	0.00
193	1991.07.12 06:56:24	0:01:48	11,836.58	355.10	0.00	0.00	2,839.54	85.19
193	1991.07.12 07:00:00	0:09:00	11,390.16	1,708.53	0.00	0.00	3,285.95	492.89
193	1991.07.12 07:15:00	0:15:00	8,846.42	2,211.60	0.00	0.00	5,829.70	1,457.43
193	1991.07.12 07:30:00	0:15:00	6,479.10	1,619.78	0.00	0.00	8,197.02	2,049.25
193	1991.07.12 07:45:00	0:15:00	4,406.09	1,101.52	0.00	0.00	10,270.03	2,567.51
193	1991.07.12 08:00:00	0:15:00	2,828.12	707.03	0.00	0.00	11,847.99	2,962.00
193	1991.07.12 08:15:00	0:15:00	1,712.71	428.18	0.00	0.00	12,963.41	3,240.85
193	1991.07.12 08:30:00	0:15:00	926.58	231.65	0.00	0.00	13,749.54	3,437.39
193	1991.07.12 08:45:00	0:15:00	389.59	97.40	0.00	0.00	14,286.53	3,571.63
193	1991.07.12 09:00:00	0:15:00	233.26	58.31	0.00	0.00	14,442.86	3,610.72
193	1991.07.12 09:15:00	0:15:00	241.45	60.36	90.82	22.71	14,343.85	3,585.96

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
193	1991.07.12 09:30:00	0:15:00	274.95	68.74	262.79	65.70	14,138.39	3,534.60
193	1991.07.12 09:45:00	0:15:00	307.70	76.93	424.08	106.02	13,944.33	3,486.08
193	1991.07.12 10:00:00	0:15:00	331.77	82.94	541.21	135.30	13,803.14	3,450.79
193	1991.07.12 10:15:00	0:15:00	358.08	89.52	653.62	163.40	13,664.43	3,416.11
193	1991.07.12 10:30:00	0:15:00	379.42	94.85	719.38	179.84	13,577.33	3,394.33
193	1991.07.12 10:45:00	0:15:00	399.27	99.82	777.19	194.30	13,499.66	3,374.91
193	1991.07.12 11:00:00	0:15:00	393.06	98.27	822.11	205.53	13,460.95	3,365.24
193	1991.07.12 11:15:00	0:15:00	385.62	96.41	898.29	224.57	13,392.21	3,348.05
193	1991.07.12 11:30:00	0:15:00	372.22	93.06	944.20	236.05	13,359.70	3,339.93
193	1991.07.12 11:45:00	0:15:00	363.29	90.82	1,014.42	253.61	13,298.41	3,324.60
193	1991.07.12 12:00:00	0:15:00	349.64	87.41	1,041.72	260.43	13,284.76	3,321.19
193	1991.07.12 12:15:00	0:15:00	337.23	84.31	1,104.25	276.06	13,234.64	3,308.66
193	1991.07.12 12:30:00	0:15:00	314.90	78.72	1,122.12	280.53	13,239.10	3,309.78
193	1991.07.12 12:45:00	0:15:00	291.32	72.83	1,180.43	295.11	13,204.36	3,301.09
193	1991.07.12 13:00:00	0:15:00	260.31	65.08	1,175.97	293.99	13,239.85	3,309.96
193	1991.07.12 13:15:00	0:15:00	249.39	62.35	1,221.62	305.41	13,205.11	3,301.28
193	1991.07.12 13:30:00	0:15:00	279.91	69.98	1,213.68	303.42	13,182.53	3,295.63
193	1991.07.12 13:45:00	0:15:00	338.97	84.74	1,217.65	304.41	13,119.50	3,279.87
193	1991.07.12 14:00:00	0:15:00	411.43	102.86	1,143.71	285.93	13,120.99	3,280.25
193	1991.07.12 14:15:00	0:15:00	588.60	147.15	1,123.36	280.84	12,964.16	3,241.04
193	1991.07.12 14:30:00	0:15:00	801.02	200.25	1,036.01	259.00	12,839.09	3,209.77
193	1991.07.12 14:45:00	0:15:00	1,027.57	256.89	981.92	245.48	12,666.63	3,166.66
193	1991.07.12 15:00:00	0:15:00	1,250.66	312.66	877.20	219.30	12,548.26	3,137.07
193	1991.07.12 15:15:00	0:15:00	1,458.11	364.53	823.60	205.90	12,394.41	3,098.60
193	1991.07.12 15:30:00	0:15:00	1,660.35	415.09	742.21	185.55	12,273.57	3,068.39
193	1991.07.12 15:45:00	0:15:00	1,894.35	473.59	641.71	160.43	12,140.06	3,035.02
193	1991.07.12 16:00:00	0:15:00	2,129.59	532.40	497.53	124.38	12,048.99	3,012.25
193	1991.07.12 16:15:00	0:15:00	2,389.40	597.35	347.65	86.91	11,939.06	2,984.77
193	1991.07.12 16:30:00	0:15:00	2,652.44	663.11	142.93	35.73	11,880.75	2,970.19
193	1991.07.12 16:45:00	0:15:00	2,938.55	734.64	0.00	0.00	11,737.57	2,934.39
193	1991.07.12 17:00:00	0:15:00	3,366.85	841.71	0.00	0.00	11,309.27	2,827.32
193	1991.07.12 17:15:00	0:15:00	4,043.54	1,010.89	0.00	0.00	10,632.57	2,658.14
193	1991.07.12 17:30:00	0:15:00	4,889.97	1,222.49	0.00	0.00	9,786.15	2,446.54
193	1991.07.12 17:45:00	0:15:00	5,779.08	1,444.77	0.00	0.00	8,897.04	2,224.26
193	1991.07.12 18:00:00	0:15:00	6,817.32	1,704.33	0.00	0.00	7,858.79	1,964.70
193	1991.07.12 18:15:00	0:15:00	8,073.44	2,018.36	0.00	0.00	6,602.68	1,650.67
193	1991.07.12 18:30:00	0:15:00	9,576.71	2,394.18	0.00	0.00	5,099.41	1,274.85
193	1991.07.12 18:45:00	0:15:00	11,306.54	2,826.64	0.00	0.00	3,369.58	842.40
193	1991.07.12 19:00:00	0:15:00	13,077.56	3,269.39	0.00	0.00	1,598.56	399.64
193	1991.07.12 19:15:00	0:16:48	14,674.88	4,108.97	0.00	0.00	1.24	0.35
193	1991.07.12 19:33:36	0:09:00	14,676.12	2,201.42	0.00	0.00	0.00	0.00
200	1991.07.19 07:01:11	0:07:48	12,012.76	1,561.66	0.00	0.00	2,663.35	346.24
200	1991.07.19 07:16:11	0:14:24	9,562.82	2,295.08	0.00	0.00	5,113.30	1,227.19
200	1991.07.19 07:30:00	0:14:24	7,169.44	1,720.67	0.00	0.00	7,506.67	1,801.60
200	1991.07.19 07:45:00	0:15:00	4,888.23	1,222.06	0.00	0.00	9,787.88	2,446.97
200	1991.07.19 08:00:00	0:15:00	3,146.99	786.75	0.00	0.00	11,529.13	2,882.28
200	1991.07.19 08:15:00	0:15:00	1,892.12	473.03	0.00	0.00	12,784.00	3,196.00
200	1991.07.19 08:30:00	0:15:00	1,024.10	256.03	0.00	0.00	13,652.02	3,413.00
200	1991.07.19 08:45:00	0:15:00	469.25	117.31	0.00	0.00	14,206.87	3,551.72
200	1991.07.19 09:00:00	0:15:00	223.33	55.83	12.66	3.16	14,440.13	3,610.03
200	1991.07.19 09:15:00	0:15:00	260.80	65.20	192.31	48.08	14,223.00	3,555.75
200	1991.07.19 09:30:00	0:15:00	293.31	73.33	367.51	91.88	14,015.30	3,503.83
200	1991.07.19 09:45:00	0:15:00	325.32	81.33	535.75	133.94	13,815.05	3,453.76
200	1991.07.19 10:00:00	0:15:00	352.37	88.09	650.39	162.60	13,673.36	3,418.34
200	1991.07.19 10:15:00	0:15:00	377.93	94.48	736.75	184.19	13,561.44	3,390.36
200	1991.07.19 10:30:00	0:15:00	397.78	99.45	787.12	196.78	13,491.22	3,372.81
200	1991.07.19 10:45:00	0:15:00	414.65	103.66	854.62	213.65	13,406.85	3,351.71

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
200	1991.07.19 11:00:00	0:15:00	407.95	101.99	915.91	228.98	13,352.26	3,338.06
200	1991.07.19 11:15:00	0:15:00	399.27	99.82	990.85	247.71	13,286.00	3,321.50
200	1991.07.19 11:30:00	0:15:00	384.88	96.22	1,038.00	259.50	13,253.25	3,313.31
200	1991.07.19 11:45:00	0:15:00	374.70	93.68	1,105.74	276.44	13,195.68	3,298.92
200	1991.07.19 12:00:00	0:15:00	359.81	89.95	1,130.80	282.70	13,185.50	3,296.38
200	1991.07.19 12:15:00	0:15:00	347.90	86.98	1,198.05	299.51	13,130.17	3,282.54
200	1991.07.19 12:30:00	0:15:00	327.55	81.89	1,216.17	304.04	13,132.40	3,283.10
200	1991.07.19 12:45:00	0:15:00	301.99	75.50	1,283.41	320.85	13,090.71	3,272.68
200	1991.07.19 13:00:00	0:15:00	270.73	67.68	1,284.41	321.10	13,120.99	3,280.25
200	1991.07.19 13:15:00	0:15:00	258.57	64.64	1,329.07	332.27	13,088.48	3,272.12
200	1991.07.19 13:30:00	0:15:00	289.34	72.34	1,325.10	331.28	13,061.68	3,265.42
200	1991.07.19 13:45:00	0:15:00	347.90	86.98	1,333.29	333.32	12,994.93	3,248.73
200	1991.07.19 14:00:00	0:15:00	423.59	105.90	1,258.10	314.53	12,994.43	3,248.61
200	1991.07.19 14:15:00	0:15:00	605.97	151.49	1,239.00	309.75	12,831.15	3,207.79
200	1991.07.19 14:30:00	0:15:00	824.34	206.09	1,150.90	287.73	12,700.87	3,175.22
200	1991.07.19 14:45:00	0:15:00	1,054.62	263.66	1,099.29	274.82	12,522.21	3,130.55
200	1991.07.19 15:00:00	0:15:00	1,284.41	321.10	994.57	248.64	12,397.14	3,099.29
200	1991.07.19 15:15:00	0:15:00	1,498.06	374.52	918.39	229.60	12,259.67	3,064.92
200	1991.07.19 15:30:00	0:15:00	1,713.70	428.43	820.37	205.09	12,142.05	3,035.51
200	1991.07.19 15:45:00	0:15:00	1,955.15	488.79	763.79	190.95	11,957.18	2,989.30
200	1991.07.19 16:00:00	0:15:00	2,192.87	548.22	643.94	160.99	11,839.31	2,959.83
200	1991.07.19 16:15:00	0:15:00	2,460.62	615.16	494.06	123.52	11,721.44	2,930.36
200	1991.07.19 16:30:00	0:15:00	2,729.86	682.46	293.56	73.39	11,652.70	2,913.18
200	1991.07.19 16:45:00	0:15:00	3,032.84	758.21	72.71	18.18	11,570.57	2,892.64
200	1991.07.19 17:00:00	0:15:00	3,453.45	863.36	0.00	0.00	11,222.67	2,805.67
200	1991.07.19 17:15:00	0:15:00	4,104.84	1,026.21	0.00	0.00	10,571.28	2,642.82
200	1991.07.19 17:30:00	0:15:00	4,948.78	1,237.20	0.00	0.00	9,727.34	2,431.83
200	1991.07.19 17:45:00	0:15:00	5,891.74	1,472.94	0.00	0.00	8,784.38	2,196.10
200	1991.07.19 18:00:00	0:15:00	6,932.22	1,733.05	0.00	0.00	7,743.90	1,935.98
200	1991.07.19 18:15:00	0:15:00	8,302.23	2,075.56	0.00	0.00	6,373.89	1,593.47
200	1991.07.19 18:30:00	0:15:00	9,934.54	2,483.63	0.00	0.00	4,741.58	1,185.40
200	1991.07.19 18:45:00	0:15:00	11,787.45	2,946.86	0.00	0.00	2,888.67	722.17
200	1991.07.19 19:00:00	0:15:00	13,474.84	3,368.71	0.00	0.00	1,201.28	300.32
200	1991.07.19 19:15:00	0:15:00	14,670.91	3,667.73	0.00	0.00	5.21	1.30
200	1991.07.19 19:30:00	0:07:48	14,676.12	1,907.90	0.00	0.00	0.00	0.00
207	1991.07.26 07:07:12	0:03:36	12,278.53	736.71	0.00	0.00	2,397.59	143.86
207	1991.07.26 07:15:00	0:11:24	11,201.08	2,128.21	0.00	0.00	3,475.04	660.26
207	1991.07.26 07:30:00	0:15:00	7,908.42	1,977.11	0.00	0.00	6,767.70	1,691.92
207	1991.07.26 07:45:00	0:15:00	5,491.23	1,372.81	0.00	0.00	9,184.89	2,296.22
207	1991.07.26 08:00:00	0:15:00	3,517.47	879.37	0.00	0.00	11,158.64	2,789.66
207	1991.07.26 08:15:00	0:15:00	2,096.34	524.09	0.00	0.00	12,579.78	3,144.94
207	1991.07.26 08:30:00	0:15:00	1,170.26	292.57	0.00	0.00	13,505.86	3,376.47
207	1991.07.26 08:45:00	0:15:00	572.23	143.06	0.00	0.00	14,103.89	3,525.97
207	1991.07.26 09:00:00	0:15:00	264.03	66.01	133.26	33.31	14,278.84	3,569.71
207	1991.07.26 09:15:00	0:15:00	286.11	71.53	333.51	83.38	14,056.50	3,514.12
207	1991.07.26 09:30:00	0:15:00	319.61	79.90	512.67	128.17	13,843.84	3,460.96
207	1991.07.26 09:45:00	0:15:00	350.63	87.66	683.64	170.91	13,641.84	3,410.46
207	1991.07.26 10:00:00	0:15:00	377.43	94.36	759.82	189.96	13,538.86	3,384.72
207	1991.07.26 10:15:00	0:15:00	399.52	99.88	823.35	205.84	13,453.25	3,363.31
207	1991.07.26 10:30:00	0:15:00	414.40	103.60	898.79	224.70	13,362.93	3,340.73
207	1991.07.26 10:45:00	0:15:00	427.06	106.77	986.88	246.72	13,262.18	3,315.55
207	1991.07.26 11:00:00	0:15:00	424.83	106.21	1,041.22	260.31	13,210.07	3,302.52
207	1991.07.26 11:15:00	0:15:00	414.40	103.60	1,113.93	278.48	13,147.78	3,286.95
207	1991.07.26 11:30:00	0:15:00	400.51	100.13	1,155.37	288.84	13,120.24	3,280.06
207	1991.07.26 11:45:00	0:15:00	389.34	97.34	1,225.10	306.28	13,061.68	3,265.42
207	1991.07.26 12:00:00	0:15:00	375.20	93.80	1,252.64	313.16	13,048.28	3,262.07
207	1991.07.26 12:15:00	0:15:00	362.54	90.64	1,317.41	329.35	12,996.17	3,249.04

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
207	1991.07.26 12:30:00	0:15:00	342.69	85.67	1,341.98	335.49	12,991.45	3,247.86
207	1991.07.26 12:45:00	0:15:00	318.37	79.59	1,404.26	351.07	12,953.49	3,238.37
207	1991.07.26 13:00:00	0:15:00	286.86	71.71	1,412.20	353.05	12,977.06	3,244.27
207	1991.07.26 13:15:00	0:15:00	273.71	68.43	1,463.32	365.83	12,939.09	3,234.77
207	1991.07.26 13:30:00	0:15:00	305.22	76.31	1,467.29	366.82	12,903.61	3,225.90
207	1991.07.26 13:45:00	0:15:00	366.26	91.57	1,472.00	368.00	12,837.85	3,209.46
207	1991.07.26 14:00:00	0:15:00	440.71	110.18	1,403.02	350.76	12,832.39	3,208.10
207	1991.07.26 14:15:00	0:15:00	633.02	158.26	1,387.39	346.85	12,655.71	3,163.93
207	1991.07.26 14:30:00	0:15:00	858.83	214.71	1,300.29	325.07	12,517.00	3,129.25
207	1991.07.26 14:45:00	0:15:00	1,091.84	272.96	1,251.40	312.85	12,332.87	3,083.22
207	1991.07.26 15:00:00	0:15:00	1,327.83	331.96	1,151.90	287.97	12,196.39	3,049.10
207	1991.07.26 15:15:00	0:15:00	1,550.17	387.54	1,074.47	268.62	12,051.47	3,012.87
207	1991.07.26 15:30:00	0:15:00	1,787.65	446.91	945.19	236.30	11,943.28	2,985.82
207	1991.07.26 15:45:00	0:15:00	2,041.25	510.31	875.96	218.99	11,758.91	2,939.73
207	1991.07.26 16:00:00	0:15:00	2,288.90	572.23	801.02	200.25	11,586.20	2,896.55
207	1991.07.26 16:15:00	0:15:00	2,559.63	639.91	689.85	172.46	11,426.64	2,856.66
207	1991.07.26 16:30:00	0:15:00	2,846.74	711.68	484.38	121.10	11,345.00	2,836.25
207	1991.07.26 16:45:00	0:15:00	3,160.64	790.16	273.71	68.43	11,241.77	2,810.44
207	1991.07.26 17:00:00	0:15:00	3,632.12	908.03	17.12	4.28	11,026.88	2,756.72
207	1991.07.26 17:15:00	0:15:00	4,252.48	1,063.12	0.00	0.00	10,423.63	2,605.91
207	1991.07.26 17:30:00	0:15:00	5,086.50	1,271.63	0.00	0.00	9,589.61	2,397.40
207	1991.07.26 17:45:00	0:15:00	6,071.40	1,517.85	0.00	0.00	8,604.72	2,151.18
207	1991.07.26 18:00:00	0:15:00	7,174.16	1,793.54	0.00	0.00	7,501.96	1,875.49
207	1991.07.26 18:15:00	0:15:00	8,647.40	2,161.85	0.00	0.00	6,028.72	1,507.18
207	1991.07.26 18:30:00	0:15:00	10,480.96	2,620.24	0.00	0.00	4,195.16	1,048.79
207	1991.07.26 18:45:00	0:15:00	12,418.98	3,104.75	0.00	0.00	2,257.14	564.29
207	1991.07.26 19:00:00	0:15:00	14,202.90	3,550.73	0.00	0.00	473.22	118.30
207	1991.07.26 19:15:00	0:12:36	14,666.94	3,080.06	0.00	0.00	9.18	1.93
207	1991.07.26 19:25:12	0:05:24	14,676.12	1,320.85	0.00	0.00	0.00	0.00
214	1991.08.02 07:12:36	0:01:12	12,605.09	252.10	0.00	0.00	2,071.03	41.42
214	1991.08.02 07:15:00	0:09:00	12,358.18	1,853.73	0.00	0.00	2,317.94	347.69
214	1991.08.02 07:30:00	0:15:00	9,002.50	2,250.63	0.00	0.00	5,673.62	1,418.40
214	1991.08.02 07:45:00	0:15:00	6,185.30	1,546.32	0.00	0.00	8,490.82	2,122.71
214	1991.08.02 08:00:00	0:15:00	4,018.23	1,004.56	0.00	0.00	10,657.88	2,664.47
214	1991.08.02 08:15:00	0:15:00	2,407.52	601.88	0.00	0.00	12,268.60	3,067.15
214	1991.08.02 08:30:00	0:15:00	1,375.48	343.87	0.00	0.00	13,300.64	3,325.16
214	1991.08.02 08:45:00	0:15:00	726.08	181.52	106.95	26.74	13,843.09	3,460.77
214	1991.08.02 09:00:00	0:15:00	343.44	85.86	312.42	78.10	14,020.27	3,505.07
214	1991.08.02 09:15:00	0:15:00	318.62	79.66	517.14	129.28	13,840.36	3,460.09
214	1991.08.02 09:30:00	0:15:00	352.12	88.03	686.87	171.72	13,637.13	3,409.28
214	1991.08.02 09:45:00	0:15:00	384.38	96.10	793.08	198.27	13,498.66	3,374.67
214	1991.08.02 10:00:00	0:15:00	401.00	100.25	894.57	223.64	13,380.55	3,345.14
214	1991.08.02 10:15:00	0:15:00	418.13	104.53	993.58	248.39	13,264.41	3,316.10
214	1991.08.02 10:30:00	0:15:00	430.29	107.57	1,069.01	267.25	13,176.82	3,294.20
214	1991.08.02 10:45:00	0:15:00	444.93	111.23	1,148.17	287.04	13,083.02	3,270.76
214	1991.08.02 11:00:00	0:15:00	443.69	110.92	1,204.50	301.13	13,027.93	3,256.98
214	1991.08.02 11:15:00	0:15:00	431.53	107.88	1,271.75	317.94	12,972.84	3,243.21
214	1991.08.02 11:30:00	0:15:00	418.38	104.59	1,308.97	327.24	12,948.77	3,237.19
214	1991.08.02 11:45:00	0:15:00	406.96	101.74	1,372.75	343.19	12,896.41	3,224.10
214	1991.08.02 12:00:00	0:15:00	392.07	98.02	1,402.52	350.63	12,881.52	3,220.38
214	1991.08.02 12:15:00	0:15:00	379.91	94.98	1,467.79	366.95	12,828.42	3,207.11
214	1991.08.02 12:30:00	0:15:00	359.07	89.77	1,496.32	374.08	12,820.73	3,205.18
214	1991.08.02 12:45:00	0:15:00	333.01	83.25	1,565.31	391.33	12,777.80	3,194.45
214	1991.08.02 13:00:00	0:15:00	301.00	75.25	1,579.45	394.86	12,795.67	3,198.92
214	1991.08.02 13:15:00	0:15:00	290.83	72.71	1,632.06	408.02	12,753.23	3,188.31
214	1991.08.02 13:30:00	0:15:00	324.08	81.02	1,646.20	411.55	12,705.84	3,176.46
214	1991.08.02 13:45:00	0:15:00	390.33	97.58	1,648.93	412.23	12,636.85	3,159.21

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
214	1991.08.02 14:00:00	0:15:00	467.51	116.88	1,583.17	395.79	12,625.44	3,156.36
214	1991.08.02 14:15:00	0:15:00	675.95	168.99	1,563.82	390.96	12,436.35	3,109.09
214	1991.08.02 14:30:00	0:15:00	909.95	227.49	1,474.49	368.62	12,291.68	3,072.92
214	1991.08.02 14:45:00	0:15:00	1,151.65	287.91	1,440.99	360.25	12,083.49	3,020.87
214	1991.08.02 15:00:00	0:15:00	1,391.61	347.90	1,351.41	337.85	11,933.11	2,983.28
214	1991.08.02 15:15:00	0:15:00	1,617.42	404.35	1,278.70	319.67	11,780.00	2,945.00
214	1991.08.02 15:30:00	0:15:00	1,875.24	468.81	1,136.51	284.13	11,664.37	2,916.09
214	1991.08.02 15:45:00	0:15:00	2,153.17	538.29	1,061.32	265.33	11,461.63	2,865.41
214	1991.08.02 16:00:00	0:15:00	2,425.38	606.35	952.39	238.10	11,298.35	2,824.59
214	1991.08.02 16:15:00	0:15:00	2,708.02	677.01	868.51	217.13	11,099.59	2,774.90
214	1991.08.02 16:30:00	0:15:00	2,997.36	749.34	723.35	180.84	10,955.41	2,738.85
214	1991.08.02 16:45:00	0:15:00	3,348.49	837.12	513.42	128.35	10,814.22	2,703.55
214	1991.08.02 17:00:00	0:15:00	3,871.08	967.77	237.97	59.49	10,567.06	2,641.77
214	1991.08.02 17:15:00	0:15:00	4,508.82	1,127.21	0.00	0.00	10,167.30	2,541.83
214	1991.08.02 17:30:00	0:15:00	5,304.38	1,326.09	0.00	0.00	9,371.74	2,342.94
214	1991.08.02 17:45:00	0:15:00	6,327.48	1,581.87	0.00	0.00	8,348.64	2,087.16
214	1991.08.02 18:00:00	0:15:00	7,591.79	1,897.95	0.00	0.00	7,084.33	1,771.08
214	1991.08.02 18:15:00	0:15:00	9,190.10	2,297.53	0.00	0.00	5,486.02	1,371.51
214	1991.08.02 18:30:00	0:15:00	11,242.27	2,810.57	0.00	0.00	3,433.85	858.46
214	1991.08.02 18:45:00	0:15:00	13,059.69	3,264.92	0.00	0.00	1,616.43	404.11
214	1991.08.02 19:00:00	0:15:00	14,627.98	3,656.99	0.00	0.00	48.14	12.04
214	1991.08.02 19:15:00	0:09:00	14,661.97	2,199.30	0.00	0.00	14.14	2.12
214	1991.08.02 19:18:36	0:01:48	14,674.13	440.22	0.00	0.00	1.99	0.06
221	1991.08.09 07:19:12	0:05:24	12,834.87	1,155.14	0.00	0.00	1,841.25	165.71
221	1991.08.09 07:30:00	0:12:36	10,328.35	2,168.95	0.00	0.00	4,347.77	913.03
221	1991.08.09 07:45:00	0:15:00	6,994.75	1,748.69	0.00	0.00	7,681.37	1,920.34
221	1991.08.09 08:00:00	0:15:00	4,643.81	1,160.95	0.00	0.00	10,032.31	2,508.08
221	1991.08.09 08:15:00	0:15:00	2,816.96	704.24	0.00	0.00	11,859.16	2,964.79
221	1991.08.09 08:30:00	0:15:00	1,654.39	413.60	88.09	22.02	12,933.63	3,233.41
221	1991.08.09 08:45:00	0:15:00	936.01	234.00	319.36	79.84	13,420.75	3,355.19
221	1991.08.09 09:00:00	0:15:00	487.36	121.84	533.02	133.26	13,655.74	3,413.94
221	1991.08.09 09:15:00	0:15:00	357.33	89.33	687.61	171.90	13,631.17	3,407.79
221	1991.08.09 09:30:00	0:15:00	384.88	96.22	823.35	205.84	13,467.89	3,366.97
221	1991.08.09 09:45:00	0:15:00	405.97	101.49	975.22	243.80	13,294.94	3,323.73
221	1991.08.09 10:00:00	0:15:00	421.10	105.28	1,102.76	275.69	13,152.25	3,288.06
221	1991.08.09 10:15:00	0:15:00	438.48	109.62	1,212.20	303.05	13,025.45	3,256.36
221	1991.08.09 10:30:00	0:15:00	449.15	112.29	1,286.89	321.72	12,940.09	3,235.02
221	1991.08.09 10:45:00	0:15:00	464.03	116.01	1,359.35	339.84	12,852.74	3,213.19
221	1991.08.09 11:00:00	0:15:00	465.77	116.44	1,398.06	349.51	12,812.29	3,203.07
221	1991.08.09 11:15:00	0:15:00	455.60	113.90	1,461.58	365.40	12,758.94	3,189.74
221	1991.08.09 11:30:00	0:15:00	440.71	110.18	1,490.86	372.72	12,744.55	3,186.14
221	1991.08.09 11:45:00	0:15:00	426.81	106.70	1,545.46	386.36	12,703.85	3,175.96
221	1991.08.09 12:00:00	0:15:00	411.68	102.92	1,573.00	393.25	12,691.44	3,172.86
221	1991.08.09 12:15:00	0:15:00	398.52	99.63	1,646.70	411.68	12,630.90	3,157.72
221	1991.08.09 12:30:00	0:15:00	377.68	94.42	1,679.95	419.99	12,618.49	3,154.62
221	1991.08.09 12:45:00	0:15:00	350.88	87.72	1,753.65	438.41	12,571.59	3,142.90
221	1991.08.09 13:00:00	0:15:00	317.63	79.41	1,775.24	443.81	12,583.25	3,145.81
221	1991.08.09 13:15:00	0:15:00	310.68	77.67	1,836.04	459.01	12,529.40	3,132.35
221	1991.08.09 13:30:00	0:15:00	349.14	87.29	1,856.63	464.16	12,470.35	3,117.59
221	1991.08.09 13:45:00	0:15:00	418.87	104.72	1,852.91	463.23	12,404.34	3,101.09
221	1991.08.09 14:00:00	0:15:00	510.69	127.67	1,786.16	446.54	12,379.28	3,094.82
221	1991.08.09 14:15:00	0:15:00	738.48	184.62	1,767.79	441.95	12,169.84	3,042.46
221	1991.08.09 14:30:00	0:15:00	976.95	244.24	1,685.66	421.41	12,013.51	3,003.38
221	1991.08.09 14:45:00	0:15:00	1,229.81	307.45	1,666.30	416.58	11,780.00	2,945.00
221	1991.08.09 15:00:00	0:15:00	1,471.26	367.82	1,595.33	398.83	11,609.53	2,902.38
221	1991.08.09 15:15:00	0:15:00	1,710.22	427.56	1,530.57	382.64	11,435.33	2,858.83
221	1991.08.09 15:30:00	0:15:00	1,986.16	496.54	1,395.33	348.83	11,294.63	2,823.66

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
221	1991.08.09 15:45:00	0:15:00	2,275.50	568.88	1,309.96	327.49	11,090.65	2,772.66
221	1991.08.09 16:00:00	0:15:00	2,576.50	644.13	1,166.04	291.51	10,933.58	2,733.39
221	1991.08.09 16:15:00	0:15:00	2,891.90	722.97	1,071.74	267.94	10,712.48	2,678.12
221	1991.08.09 16:30:00	0:15:00	3,206.80	801.70	936.01	234.00	10,533.32	2,633.33
221	1991.08.09 16:45:00	0:15:00	3,619.21	904.80	784.39	196.10	10,272.51	2,568.13
221	1991.08.09 17:00:00	0:15:00	4,165.14	1,041.28	529.30	132.32	9,981.69	2,495.42
221	1991.08.09 17:15:00	0:15:00	4,851.76	1,212.94	223.33	55.83	9,601.03	2,400.26
221	1991.08.09 17:30:00	0:15:00	5,649.55	1,412.39	0.00	0.00	9,026.57	2,256.64
221	1991.08.09 17:45:00	0:15:00	6,737.92	1,684.48	0.00	0.00	7,938.20	1,984.55
221	1991.08.09 18:00:00	0:15:00	8,185.35	2,046.34	0.00	0.00	6,490.76	1,622.69
221	1991.08.09 18:15:00	0:15:00	9,974.74	2,493.68	0.00	0.00	4,701.38	1,175.35
221	1991.08.09 18:30:00	0:15:00	12,299.87	3,074.97	0.00	0.00	2,376.25	594.06
221	1991.08.09 18:45:00	0:20:24	13,979.82	4,753.14	0.00	0.00	696.30	236.74
221	1991.08.09 19:10:48	0:12:36	14,630.71	3,072.45	0.00	0.00	45.41	9.54
228	1991.08.16 07:25:12	0:02:24	12,871.60	514.86	0.00	0.00	1,804.52	72.18
228	1991.08.16 07:30:00	0:10:12	12,001.35	2,040.23	0.00	0.00	2,674.77	454.71
228	1991.08.16 07:45:00	0:15:00	8,054.09	2,013.52	0.00	0.00	6,622.03	1,655.51
228	1991.08.16 08:00:00	0:15:00	5,316.78	1,329.20	0.00	0.00	9,359.34	2,339.83
228	1991.08.16 08:15:00	0:15:00	3,362.88	840.72	76.68	19.17	11,236.56	2,809.14
228	1991.08.16 08:30:00	0:15:00	2,070.78	517.70	319.86	79.97	12,285.48	3,071.37
228	1991.08.16 08:45:00	0:15:00	1,203.76	300.94	550.89	137.72	12,921.48	3,230.37
228	1991.08.16 09:00:00	0:15:00	670.74	167.69	704.49	176.12	13,300.89	3,325.22
228	1991.08.16 09:15:00	0:15:00	394.55	98.64	892.33	223.08	13,389.23	3,347.31
228	1991.08.16 09:30:00	0:15:00	409.69	102.42	1,053.38	263.35	13,213.05	3,303.26
228	1991.08.16 09:45:00	0:15:00	427.80	106.95	1,217.16	304.29	13,031.16	3,257.79
228	1991.08.16 10:00:00	0:15:00	446.42	111.60	1,342.72	335.68	12,886.98	3,221.75
228	1991.08.16 10:15:00	0:15:00	460.81	115.20	1,472.75	368.19	12,742.56	3,185.64
228	1991.08.16 10:30:00	0:15:00	472.97	118.24	1,542.73	385.68	12,660.43	3,165.11
228	1991.08.16 10:45:00	0:15:00	486.62	121.65	1,593.60	398.40	12,595.91	3,148.98
228	1991.08.16 11:00:00	0:15:00	491.33	122.83	1,619.16	404.79	12,565.63	3,141.41
228	1991.08.16 11:15:00	0:15:00	481.40	120.35	1,669.78	417.44	12,524.94	3,131.23
228	1991.08.16 11:30:00	0:15:00	467.26	116.82	1,690.62	422.66	12,518.24	3,129.56
228	1991.08.16 11:45:00	0:15:00	448.90	112.22	1,749.43	437.36	12,477.79	3,119.45
228	1991.08.16 12:00:00	0:15:00	434.26	108.56	1,775.74	443.93	12,466.13	3,116.53
228	1991.08.16 12:15:00	0:15:00	418.62	104.66	1,851.17	462.79	12,406.32	3,101.58
228	1991.08.16 12:30:00	0:15:00	398.28	99.57	1,887.40	471.85	12,390.44	3,097.61
228	1991.08.16 12:45:00	0:15:00	368.99	92.25	1,971.77	492.94	12,335.35	3,083.84
228	1991.08.16 13:00:00	0:15:00	338.22	84.56	1,999.81	499.95	12,338.08	3,084.52
228	1991.08.16 13:15:00	0:15:00	336.98	84.25	2,068.55	517.14	12,270.59	3,067.65
228	1991.08.16 13:30:00	0:15:00	381.90	95.47	2,093.36	523.34	12,200.86	3,050.22
228	1991.08.16 13:45:00	0:15:00	456.34	114.09	2,082.20	520.55	12,137.58	3,034.40
228	1991.08.16 14:00:00	0:15:00	577.44	144.36	2,020.41	505.10	12,078.27	3,019.57
228	1991.08.16 14:15:00	0:15:00	812.93	203.23	2,003.78	500.95	11,859.41	2,964.85
228	1991.08.16 14:30:00	0:15:00	1,061.82	265.46	1,923.13	480.78	11,691.17	2,922.79
228	1991.08.16 14:45:00	0:15:00	1,323.61	330.90	1,932.32	483.08	11,420.19	2,855.05
228	1991.08.16 15:00:00	0:15:00	1,571.01	392.75	1,893.11	473.28	11,212.00	2,803.00
228	1991.08.16 15:15:00	0:15:00	1,831.07	457.77	1,829.09	457.27	11,015.96	2,753.99
228	1991.08.16 15:30:00	0:15:00	2,120.91	530.23	1,720.90	430.22	10,834.32	2,708.58
228	1991.08.16 15:45:00	0:15:00	2,429.85	607.46	1,647.44	411.86	10,598.83	2,649.71
228	1991.08.16 16:00:00	0:15:00	2,750.45	687.61	1,489.13	372.28	10,436.54	2,609.13
228	1991.08.16 16:15:00	0:15:00	3,093.39	773.35	1,356.62	339.15	10,226.11	2,556.53
228	1991.08.16 16:30:00	0:15:00	3,462.14	865.53	1,197.80	299.45	10,016.18	2,504.04
228	1991.08.16 16:45:00	0:15:00	3,968.11	992.03	1,053.88	263.47	9,654.13	2,413.53
228	1991.08.16 17:00:00	0:15:00	4,537.60	1,134.40	840.97	210.24	9,297.55	2,324.39
228	1991.08.16 17:15:00	0:15:00	5,262.94	1,315.73	598.28	149.57	8,814.90	2,203.73
228	1991.08.16 17:30:00	0:15:00	6,166.93	1,541.73	196.28	49.07	8,312.90	2,078.23
228	1991.08.16 17:45:00	0:15:00	7,314.36	1,828.59	0.00	0.00	7,361.76	1,840.44

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
228	1991.08.16 18:00:00	0:15:00	8,906.47	2,226.62	0.00	0.00	5,769.65	1,442.41
228	1991.08.16 18:15:00	0:15:00	11,035.07	2,758.77	0.00	0.00	3,641.05	910.26
228	1991.08.16 18:30:00	0:15:00	13,065.90	3,266.47	0.00	0.00	1,610.22	402.56
228	1991.08.16 18:45:00	0:16:12	14,583.56	3,937.56	0.00	0.00	92.56	24.99
228	1991.08.16 19:02:23	0:08:24	14,571.40	2,040.00	0.00	0.00	104.72	14.66
235	1991.08.23 07:31:48	0:06:36	12,736.36	1,401.00	0.00	0.00	1,939.76	213.37
235	1991.08.23 07:45:00	0:13:48	9,299.28	2,138.84	0.00	0.00	5,376.83	1,236.67
235	1991.08.23 08:00:00	0:15:00	6,190.51	1,547.63	78.91	19.73	8,406.70	2,101.68
235	1991.08.23 08:15:00	0:15:00	4,149.50	1,037.38	329.29	82.32	10,197.33	2,549.33
235	1991.08.23 08:30:00	0:15:00	2,609.51	652.38	553.61	138.40	11,513.00	2,878.25
235	1991.08.23 08:45:00	0:15:00	1,528.09	382.02	761.31	190.33	12,386.72	3,096.68
235	1991.08.23 09:00:00	0:15:00	849.90	212.48	968.02	242.01	12,858.20	3,214.55
235	1991.08.23 09:15:00	0:15:00	460.81	115.20	1,158.84	289.71	13,056.47	3,264.12
235	1991.08.23 09:30:00	0:15:00	439.47	109.87	1,321.38	330.35	12,915.27	3,228.82
235	1991.08.23 09:45:00	0:15:00	460.31	115.08	1,478.70	369.68	12,737.10	3,184.28
235	1991.08.23 10:00:00	0:15:00	475.95	118.99	1,609.48	402.37	12,590.70	3,147.67
235	1991.08.23 10:15:00	0:15:00	486.86	121.72	1,747.94	436.99	12,441.31	3,110.33
235	1991.08.23 10:30:00	0:15:00	500.02	125.00	1,808.49	452.12	12,367.61	3,091.90
235	1991.08.23 10:45:00	0:15:00	516.89	129.22	1,860.60	465.15	12,298.63	3,074.66
235	1991.08.23 11:00:00	0:15:00	526.32	131.58	1,874.75	468.69	12,275.05	3,068.76
235	1991.08.23 11:15:00	0:15:00	504.98	126.24	1,916.43	479.11	12,254.71	3,063.68
235	1991.08.23 11:30:00	0:15:00	487.61	121.90	1,921.89	480.47	12,266.62	3,066.65
235	1991.08.23 11:45:00	0:15:00	471.97	117.99	1,977.48	494.37	12,226.67	3,056.67
235	1991.08.23 12:00:00	0:15:00	456.34	114.09	2,009.74	502.43	12,210.04	3,052.51
235	1991.08.23 12:15:00	0:15:00	441.45	110.36	2,084.68	521.17	12,149.99	3,037.50
235	1991.08.23 12:30:00	0:15:00	419.62	104.90	2,129.84	532.46	12,126.66	3,031.67
235	1991.08.23 12:45:00	0:15:00	390.09	97.52	2,218.18	554.55	12,067.85	3,016.96
235	1991.08.23 13:00:00	0:15:00	360.06	90.02	2,259.62	564.91	12,056.44	3,014.11
235	1991.08.23 13:15:00	0:15:00	364.53	91.13	2,341.26	585.32	11,970.33	2,992.58
235	1991.08.23 13:30:00	0:15:00	418.38	104.59	2,357.64	589.41	11,900.11	2,975.03
235	1991.08.23 13:45:00	0:15:00	497.04	124.26	2,347.71	586.93	11,831.37	2,957.84
235	1991.08.23 14:00:00	0:15:00	660.07	165.02	2,289.40	572.35	11,726.65	2,931.66
235	1991.08.23 14:15:00	0:15:00	910.95	227.74	2,271.53	567.88	11,493.64	2,873.41
235	1991.08.23 14:30:00	0:15:00	1,167.78	291.94	2,216.94	554.24	11,291.40	2,822.85
235	1991.08.23 14:45:00	0:15:00	1,439.25	359.81	2,239.77	559.94	10,997.10	2,749.28
235	1991.08.23 15:00:00	0:15:00	1,691.37	422.84	2,220.66	555.17	10,764.09	2,691.02
235	1991.08.23 15:15:00	0:15:00	1,986.16	496.54	2,178.73	544.68	10,511.23	2,627.81
235	1991.08.23 15:30:00	0:15:00	2,294.11	573.53	2,109.49	527.37	10,272.51	2,568.13
235	1991.08.23 15:45:00	0:15:00	2,628.37	657.09	2,050.68	512.67	9,997.07	2,499.27
235	1991.08.23 16:00:00	0:15:00	2,977.01	744.25	1,889.63	472.41	9,809.47	2,452.37
235	1991.08.23 16:15:00	0:15:00	3,346.75	836.69	1,764.57	441.14	9,564.80	2,391.20
235	1991.08.23 16:30:00	0:15:00	3,789.19	947.30	1,570.27	392.57	9,316.65	2,329.16
235	1991.08.23 16:45:00	0:15:00	4,356.95	1,089.24	1,443.47	360.87	8,875.70	2,218.92
235	1991.08.23 17:00:00	0:15:00	4,999.16	1,249.79	1,180.43	295.11	8,496.53	2,124.13
235	1991.08.23 17:15:00	0:15:00	5,810.35	1,452.59	930.05	232.51	7,935.72	1,983.93
235	1991.08.23 17:30:00	0:15:00	6,849.34	1,712.33	644.93	161.23	7,181.85	1,795.46
235	1991.08.23 17:45:00	0:15:00	8,159.05	2,039.76	177.43	44.36	6,339.64	1,584.91
235	1991.08.23 18:00:00	0:15:00	9,940.49	2,485.12	0.00	0.00	4,735.62	1,183.91
235	1991.08.23 18:15:00	0:15:00	12,242.55	3,060.64	0.00	0.00	2,433.57	608.39
235	1991.08.23 18:30:00	0:15:00	14,061.71	3,515.43	0.00	0.00	614.41	153.60
235	1991.08.23 18:45:00	0:11:24	14,590.76	2,772.24	0.00	0.00	85.36	16.22
235	1991.08.23 18:52:48	0:03:36	14,578.35	874.70	0.00	0.00	97.77	5.87
242	1991.08.30 07:37:48	0:03:36	12,432.38	745.94	3.47	0.21	2,240.27	134.42
242	1991.08.30 07:45:00	0:11:24	10,886.68	2,068.47	84.37	16.03	3,705.07	703.96
242	1991.08.30 08:00:00	0:15:00	7,408.66	1,852.16	324.58	81.14	6,942.89	1,735.72
242	1991.08.30 08:15:00	0:15:00	5,019.26	1,254.81	574.46	143.62	9,082.40	2,270.60
242	1991.08.30 08:30:00	0:15:00	3,225.65	806.41	782.65	195.66	10,667.81	2,666.95

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
242	1991.08.30 08:45:00	0:15:00	1,913.21	478.30	1,031.79	257.95	11,731.12	2,932.78
242	1991.08.30 09:00:00	0:15:00	1,060.58	265.14	1,257.61	314.40	12,357.94	3,089.48
242	1991.08.30 09:15:00	0:15:00	579.92	144.98	1,453.64	363.41	12,642.56	3,160.64
242	1991.08.30 09:30:00	0:15:00	482.15	120.54	1,616.18	404.04	12,577.79	3,144.45
242	1991.08.30 09:45:00	0:15:00	489.59	122.40	1,779.21	444.80	12,407.32	3,101.83
242	1991.08.30 10:00:00	0:15:00	507.21	126.80	1,904.77	476.19	12,264.14	3,066.03
242	1991.08.30 10:15:00	0:15:00	528.30	132.08	2,029.09	507.27	12,118.72	3,029.68
242	1991.08.30 10:30:00	0:15:00	537.49	134.37	2,109.99	527.50	12,028.65	3,007.16
242	1991.08.30 10:45:00	0:15:00	539.72	134.93	2,177.98	544.50	11,958.42	2,989.61
242	1991.08.30 11:00:00	0:15:00	545.92	136.48	2,168.05	542.01	11,962.14	2,990.54
242	1991.08.30 11:15:00	0:15:00	532.52	133.13	2,185.92	546.48	11,957.68	2,989.42
242	1991.08.30 11:30:00	0:15:00	512.92	128.23	2,186.67	546.67	11,976.53	2,994.13
242	1991.08.30 11:45:00	0:15:00	499.77	124.94	2,243.74	560.94	11,932.61	2,983.15
242	1991.08.30 12:00:00	0:15:00	481.90	120.48	2,272.52	568.13	11,921.69	2,980.42
242	1991.08.30 12:15:00	0:15:00	469.00	117.25	2,350.94	587.74	11,856.18	2,964.05
242	1991.08.30 12:30:00	0:15:00	443.69	110.92	2,393.37	598.34	11,839.06	2,959.77
242	1991.08.30 12:45:00	0:15:00	414.40	103.60	2,483.20	620.80	11,778.51	2,944.63
242	1991.08.30 13:00:00	0:15:00	384.13	96.03	2,532.58	633.15	11,759.41	2,939.85
242	1991.08.30 13:15:00	0:15:00	397.53	99.38	2,629.36	657.34	11,649.23	2,912.31
242	1991.08.30 13:30:00	0:15:00	458.57	114.64	2,643.01	660.75	11,574.54	2,893.63
242	1991.08.30 13:45:00	0:15:00	541.95	135.49	2,640.53	660.13	11,493.64	2,873.41
242	1991.08.30 14:00:00	0:15:00	749.65	187.41	2,592.14	648.03	11,334.33	2,833.58
242	1991.08.30 14:15:00	0:15:00	1,017.15	254.29	2,582.96	645.74	11,076.01	2,769.00
242	1991.08.30 14:30:00	0:15:00	1,300.54	325.13	2,596.36	649.09	10,779.23	2,694.81
242	1991.08.30 14:45:00	0:15:00	1,577.47	394.37	2,632.34	658.08	10,466.32	2,616.58
242	1991.08.30 15:00:00	0:15:00	1,841.00	460.25	2,557.40	639.35	10,277.72	2,569.43
242	1991.08.30 15:15:00	0:15:00	2,164.33	541.08	2,500.82	625.21	10,010.97	2,502.74
242	1991.08.30 15:30:00	0:15:00	2,504.54	626.14	2,429.85	607.46	9,741.73	2,435.43
242	1991.08.30 15:45:00	0:15:00	2,864.11	716.03	2,397.34	599.34	9,414.67	2,353.67
242	1991.08.30 16:00:00	0:15:00	3,234.34	808.59	2,356.15	589.04	9,085.63	2,271.41
242	1991.08.30 16:15:00	0:15:00	3,663.38	915.85	2,251.18	562.80	8,761.55	2,190.39
242	1991.08.30 16:30:00	0:15:00	4,177.54	1,044.39	2,140.01	535.00	8,358.56	2,089.64
242	1991.08.30 16:45:00	0:15:00	4,804.36	1,201.09	1,962.34	490.59	7,909.42	1,977.35
242	1991.08.30 17:00:00	0:15:00	5,540.12	1,385.03	1,590.37	397.59	7,545.63	1,886.41
242	1991.08.30 17:15:00	0:15:00	6,467.69	1,616.92	1,339.00	334.75	6,869.44	1,717.36
242	1991.08.30 17:30:00	0:15:00	7,655.56	1,913.89	1,021.37	255.34	5,999.19	1,499.80
242	1991.08.30 17:45:00	0:15:00	9,190.35	2,297.59	688.11	172.03	4,797.66	1,199.42
242	1991.08.30 18:00:00	0:15:00	11,358.40	2,839.60	96.53	24.13	3,221.19	805.30
242	1991.08.30 18:15:00	0:15:00	13,187.74	3,296.93	0.00	0.00	1,488.38	372.10
242	1991.08.30 18:30:00	0:13:48	14,407.87	3,313.81	0.00	0.00	268.25	61.70
242	1991.08.30 18:42:36	0:06:36	14,634.18	1,609.76	0.00	0.00	41.94	4.61
249	1991.09.06 07:44:24	0:07:48	12,750.01	1,657.50	208.20	27.07	1,717.92	223.33
249	1991.09.06 08:00:00	0:15:00	8,870.74	2,217.68	528.06	132.01	5,277.33	1,319.33
249	1991.09.06 08:15:00	0:15:00	6,034.17	1,508.54	780.17	195.04	7,861.77	1,965.44
249	1991.09.06 08:30:00	0:15:00	3,962.90	990.72	1,047.18	261.79	9,666.04	2,416.51
249	1991.09.06 08:45:00	0:15:00	2,397.09	599.27	1,311.21	327.80	10,967.82	2,741.96
249	1991.09.06 09:00:00	0:15:00	1,342.22	335.56	1,563.82	390.96	11,770.08	2,942.52
249	1991.09.06 09:15:00	0:15:00	767.27	191.82	1,771.77	442.94	12,137.09	3,034.27
249	1991.09.06 09:30:00	0:15:00	523.34	130.84	1,937.28	484.32	12,215.50	3,053.88
249	1991.09.06 09:45:00	0:15:00	527.81	131.95	2,108.75	527.19	12,039.56	3,009.89
249	1991.09.06 10:00:00	0:15:00	537.98	134.50	2,234.56	558.64	11,903.58	2,975.90
249	1991.09.06 10:15:00	0:15:00	561.56	140.39	2,360.12	590.03	11,754.44	2,938.61
249	1991.09.06 10:30:00	0:15:00	571.73	142.93	2,442.26	610.56	11,662.13	2,915.53
249	1991.09.06 10:45:00	0:15:00	585.63	146.41	2,516.20	629.05	11,574.29	2,893.57
249	1991.09.06 11:00:00	0:15:00	591.09	147.77	2,485.68	621.42	11,599.35	2,899.84
249	1991.09.06 11:15:00	0:15:00	574.71	143.68	2,493.37	623.34	11,608.04	2,902.01
249	1991.09.06 11:30:00	0:15:00	555.10	138.78	2,486.67	621.67	11,634.34	2,908.59

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
249	1991.09.06 11:45:00	0:15:00	539.72	134.93	2,534.32	633.58	11,602.08	2,900.52
249	1991.09.06 12:00:00	0:15:00	523.34	130.84	2,566.33	641.58	11,586.45	2,896.61
249	1991.09.06 12:15:00	0:15:00	506.96	126.74	2,639.78	659.95	11,529.37	2,882.34
249	1991.09.06 12:30:00	0:15:00	484.13	121.03	2,670.05	667.51	11,521.93	2,880.48
249	1991.09.06 12:45:00	0:15:00	452.62	113.16	2,753.68	688.42	11,469.82	2,867.46
249	1991.09.06 13:00:00	0:15:00	425.32	106.33	2,792.89	698.22	11,457.91	2,864.48
249	1991.09.06 13:15:00	0:15:00	454.85	113.71	2,894.13	723.53	11,327.14	2,831.78
249	1991.09.06 13:30:00	0:15:00	512.42	128.11	2,891.15	722.79	11,272.54	2,818.14
249	1991.09.06 13:45:00	0:15:00	606.72	151.68	2,881.72	720.43	11,187.68	2,796.92
249	1991.09.06 14:00:00	0:15:00	854.37	213.59	2,835.57	708.89	10,986.18	2,746.55
249	1991.09.06 14:15:00	0:15:00	1,135.77	283.94	2,845.99	711.50	10,694.36	2,673.59
249	1991.09.06 14:30:00	0:15:00	1,433.79	358.45	2,922.42	730.61	10,319.91	2,579.98
249	1991.09.06 14:45:00	0:15:00	1,728.09	432.02	2,981.23	745.31	9,966.80	2,491.70
249	1991.09.06 15:00:00	0:15:00	2,037.78	509.44	2,920.93	730.23	9,717.41	2,429.35
249	1991.09.06 15:15:00	0:15:00	2,385.18	596.30	2,952.69	738.17	9,338.24	2,334.56
249	1991.09.06 15:30:00	0:15:00	2,739.29	684.82	2,925.65	731.41	9,011.19	2,252.80
249	1991.09.06 15:45:00	0:15:00	3,131.86	782.96	2,864.11	716.03	8,680.16	2,170.04
249	1991.09.06 16:00:00	0:15:00	3,541.79	885.45	2,796.86	699.21	8,337.47	2,084.37
249	1991.09.06 16:15:00	0:15:00	4,025.93	1,006.48	2,816.46	704.12	7,833.73	1,958.43
249	1991.09.06 16:30:00	0:15:00	4,615.03	1,153.76	2,841.77	710.44	7,219.32	1,804.83
249	1991.09.06 16:45:00	0:15:00	5,319.26	1,329.82	2,514.47	628.62	6,842.39	1,710.60
249	1991.09.06 17:00:00	0:15:00	6,171.65	1,542.91	2,064.33	516.08	6,440.14	1,610.04
249	1991.09.06 17:15:00	0:15:00	7,268.70	1,817.18	1,766.06	441.51	5,641.36	1,410.34
249	1991.09.06 17:30:00	0:15:00	8,594.80	2,148.70	1,477.96	369.49	4,603.36	1,150.84
249	1991.09.06 17:45:00	0:15:00	10,462.10	2,615.52	1,041.72	260.43	3,172.30	793.08
249	1991.09.06 18:00:00	0:15:00	12,430.64	3,107.66	610.44	152.61	1,635.04	408.76
249	1991.09.06 18:15:00	0:16:12	13,982.55	3,775.29	0.00	0.00	693.57	187.26
249	1991.09.06 18:31:48	0:08:24	14,603.16	2,044.44	0.00	0.00	72.96	10.21
256	1991.09.13 07:50:24	0:04:48	12,660.43	1,012.83	404.48	32.36	1,611.21	128.90
256	1991.09.13 08:00:00	0:12:36	10,358.12	2,175.21	656.35	137.83	3,661.65	768.95
256	1991.09.13 08:15:00	0:15:00	7,141.40	1,785.35	1,000.03	250.01	6,534.69	1,633.67
256	1991.09.13 08:30:00	0:15:00	4,773.84	1,193.46	1,305.99	326.50	8,596.29	2,149.07
256	1991.09.13 08:45:00	0:15:00	2,970.06	742.52	1,614.94	403.73	10,091.12	2,522.78
256	1991.09.13 09:00:00	0:15:00	1,696.33	424.08	1,840.50	460.13	11,139.29	2,784.82
256	1991.09.13 09:15:00	0:15:00	962.31	240.58	2,024.38	506.09	11,689.43	2,922.36
256	1991.09.13 09:30:00	0:15:00	577.44	144.36	2,173.27	543.32	11,925.42	2,981.35
256	1991.09.13 09:45:00	0:15:00	577.44	144.36	2,331.58	582.90	11,767.10	2,941.78
256	1991.09.13 10:00:00	0:15:00	582.15	145.54	2,467.57	616.89	11,626.40	2,906.60
256	1991.09.13 10:15:00	0:15:00	599.03	149.76	2,587.17	646.79	11,489.92	2,872.48
256	1991.09.13 10:30:00	0:15:00	599.77	149.94	2,687.18	671.79	11,389.17	2,847.29
256	1991.09.13 10:45:00	0:15:00	613.17	153.29	2,779.74	694.93	11,283.21	2,820.80
256	1991.09.13 11:00:00	0:15:00	613.67	153.42	2,768.32	692.08	11,294.13	2,823.53
256	1991.09.13 11:15:00	0:15:00	600.02	150.00	2,776.51	694.13	11,299.59	2,824.90
256	1991.09.13 11:30:00	0:15:00	577.69	144.42	2,770.80	692.70	11,327.63	2,831.91
256	1991.09.13 11:45:00	0:15:00	563.29	140.82	2,824.65	706.16	11,288.18	2,822.04
256	1991.09.13 12:00:00	0:15:00	542.20	135.55	2,869.07	717.27	11,264.85	2,816.21
256	1991.09.13 12:15:00	0:15:00	528.55	132.14	2,952.20	738.05	11,195.37	2,798.84
256	1991.09.13 12:30:00	0:15:00	500.51	125.13	2,989.17	747.29	11,186.44	2,796.61
256	1991.09.13 12:45:00	0:15:00	472.22	118.06	3,079.00	769.75	11,124.90	2,781.22
256	1991.09.13 13:00:00	0:15:00	451.38	112.85	3,132.35	783.09	11,092.39	2,773.10
256	1991.09.13 13:15:00	0:15:00	496.04	124.01	3,249.23	812.31	10,930.85	2,732.71
256	1991.09.13 13:30:00	0:15:00	577.44	144.36	3,196.13	799.03	10,902.56	2,725.64
256	1991.09.13 13:45:00	0:15:00	713.17	178.29	3,172.80	793.20	10,790.15	2,697.54
256	1991.09.13 14:00:00	0:15:00	995.07	248.77	3,094.63	773.66	10,586.42	2,646.61
256	1991.09.13 14:15:00	0:15:00	1,295.82	323.96	3,141.53	785.38	10,238.77	2,559.69
256	1991.09.13 14:30:00	0:15:00	1,601.78	400.45	3,234.09	808.52	9,840.24	2,460.06
256	1991.09.13 14:45:00	0:15:00	1,908.25	477.06	3,306.30	826.58	9,461.57	2,365.39

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
256	1991.09.13 15:00:00	0:15:00	2,247.46	561.87	3,325.16	831.29	9,103.50	2,275.87
256	1991.09.13 15:15:00	0:15:00	2,627.87	656.97	3,445.26	861.32	8,602.99	2,150.75
256	1991.09.13 15:30:00	0:15:00	3,028.63	757.16	3,493.90	873.48	8,153.59	2,038.40
256	1991.09.13 15:45:00	0:15:00	3,449.73	862.43	3,543.03	885.76	7,683.35	1,920.84
256	1991.09.13 16:00:00	0:15:00	3,899.62	974.91	3,490.67	872.67	7,285.82	1,821.46
256	1991.09.13 16:15:00	0:15:00	4,441.08	1,110.27	3,571.32	892.83	6,663.72	1,665.93
256	1991.09.13 16:30:00	0:15:00	5,096.93	1,274.23	3,358.91	839.73	6,220.28	1,555.07
256	1991.09.13 16:45:00	0:15:00	5,900.42	1,475.11	2,928.13	732.03	5,847.57	1,461.89
256	1991.09.13 17:00:00	0:15:00	6,903.43	1,725.86	2,482.21	620.55	5,290.48	1,322.62
256	1991.09.13 17:15:00	0:15:00	8,144.41	2,036.10	2,238.53	559.63	4,293.18	1,073.30
256	1991.09.13 17:30:00	0:15:00	9,743.71	2,435.93	1,839.26	459.82	3,093.14	773.29
256	1991.09.13 17:45:00	0:15:00	11,694.64	2,923.66	1,386.39	346.60	1,595.09	398.77
256	1991.09.13 18:00:00	0:15:00	13,276.08	3,319.02	902.76	225.69	497.29	124.32
256	1991.09.13 18:15:00	0:10:48	14,042.85	2,527.71	385.62	69.41	247.65	44.58
256	1991.09.13 18:21:00	0:03:00	14,399.44	719.97	180.90	9.05	95.78	4.79
263	1991.09.20 07:57:00	0:01:12	12,414.26	248.29	464.53	9.29	1,797.32	35.95
263	1991.09.20 08:00:00	0:09:00	11,638.56	1,745.78	615.90	92.39	2,421.66	363.25
263	1991.09.20 08:15:00	0:15:00	8,310.92	2,077.73	1,117.90	279.48	5,247.30	1,311.83
263	1991.09.20 08:30:00	0:15:00	5,662.45	1,415.61	1,523.87	380.97	7,489.80	1,872.45
263	1991.09.20 08:45:00	0:15:00	3,642.04	910.51	1,812.96	453.24	9,221.12	2,305.28
263	1991.09.20 09:00:00	0:15:00	2,121.90	530.48	2,047.21	511.80	10,507.01	2,626.75
263	1991.09.20 09:15:00	0:15:00	1,210.21	302.55	2,213.96	553.49	11,251.95	2,812.99
263	1991.09.20 09:30:00	0:15:00	703.74	175.94	2,372.78	593.19	11,599.60	2,899.90
263	1991.09.20 09:45:00	0:15:00	631.53	157.88	2,530.84	632.71	11,513.74	2,878.44
263	1991.09.20 10:00:00	0:15:00	640.96	160.24	2,656.65	664.16	11,378.50	2,844.63
263	1991.09.20 10:15:00	0:15:00	647.17	161.79	2,789.41	697.35	11,239.54	2,809.89
263	1991.09.20 10:30:00	0:15:00	644.68	161.17	2,897.11	724.28	11,134.33	2,783.58
263	1991.09.20 10:45:00	0:15:00	651.88	162.97	3,002.32	750.58	11,021.92	2,755.48
263	1991.09.20 11:00:00	0:15:00	657.34	164.34	3,026.39	756.60	10,992.39	2,748.10
263	1991.09.20 11:15:00	0:15:00	641.46	160.37	3,069.57	767.39	10,965.09	2,741.27
263	1991.09.20 11:30:00	0:15:00	620.37	155.09	3,085.70	771.43	10,970.05	2,742.51
263	1991.09.20 11:45:00	0:15:00	602.00	150.50	3,167.84	791.96	10,906.28	2,726.57
263	1991.09.20 12:00:00	0:15:00	587.36	146.84	3,233.60	808.40	10,855.16	2,713.79
263	1991.09.20 12:15:00	0:15:00	570.49	142.62	3,337.32	834.33	10,768.31	2,692.08
263	1991.09.20 12:30:00	0:15:00	544.43	136.11	3,399.85	849.96	10,731.83	2,682.96
263	1991.09.20 12:45:00	0:15:00	517.63	129.41	3,513.50	878.38	10,644.98	2,661.25
263	1991.09.20 13:00:00	0:15:00	496.54	124.14	3,584.23	896.06	10,595.35	2,648.84
263	1991.09.20 13:15:00	0:15:00	553.61	138.40	3,703.58	925.90	10,418.92	2,604.73
263	1991.09.20 13:30:00	0:15:00	630.54	157.64	3,630.63	907.66	10,414.95	2,603.74
263	1991.09.20 13:45:00	0:15:00	829.55	207.39	3,597.87	899.47	10,248.69	2,562.17
263	1991.09.20 14:00:00	0:15:00	1,126.34	281.58	3,518.72	879.68	10,031.07	2,507.77
263	1991.09.20 14:15:00	0:15:00	1,456.12	364.03	3,620.70	905.18	9,599.29	2,399.82
263	1991.09.20 14:30:00	0:15:00	1,779.46	444.86	3,717.23	929.31	9,179.43	2,294.86
263	1991.09.20 14:45:00	0:15:00	2,126.61	531.65	3,791.43	947.86	8,758.08	2,189.52
263	1991.09.20 15:00:00	0:15:00	2,508.51	627.13	3,885.97	971.49	8,281.64	2,070.41
263	1991.09.20 15:15:00	0:15:00	2,922.67	730.67	4,067.12	1,016.78	7,686.33	1,921.58
263	1991.09.20 15:30:00	0:15:00	3,347.00	836.75	4,192.43	1,048.11	7,136.69	1,784.17
263	1991.09.20 15:45:00	0:15:00	3,801.35	950.34	4,338.59	1,084.65	6,536.17	1,634.04
263	1991.09.20 16:00:00	0:15:00	4,295.91	1,073.98	4,396.16	1,099.04	5,984.05	1,496.01
263	1991.09.20 16:15:00	0:15:00	4,925.46	1,231.36	4,523.71	1,130.93	5,226.95	1,306.74
263	1991.09.20 16:30:00	0:15:00	5,648.80	1,412.20	4,002.85	1,000.71	5,024.47	1,256.12
263	1991.09.20 16:45:00	0:15:00	6,556.77	1,639.19	3,457.92	864.48	4,661.43	1,165.36
263	1991.09.20 17:00:00	0:15:00	7,700.73	1,925.18	3,021.18	755.30	3,954.21	988.55
263	1991.09.20 17:15:00	0:15:00	9,121.86	2,280.47	2,678.74	669.69	2,875.52	718.88
263	1991.09.20 17:30:00	0:15:00	11,090.90	2,772.73	2,181.95	545.49	1,403.27	350.82
263	1991.09.20 17:45:00	0:15:00	12,477.05	3,119.26	1,650.17	412.54	548.90	137.23
263	1991.09.20 18:00:00	0:12:36	13,367.89	2,807.26	1,110.70	233.25	197.52	41.48

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
263	1991.09.20 18:09:36	0:04:48	13,868.40	1,109.47	744.94	59.60	62.78	5.02
270	1991.09.27 08:03:00	0:06:00	12,191.43	1,219.14	493.81	49.38	1,990.88	199.09
270	1991.09.27 08:15:00	0:13:12	9,462.07	2,081.66	1,137.26	250.20	4,076.80	896.90
270	1991.09.27 08:30:00	0:15:00	6,770.42	1,692.61	1,613.94	403.49	6,291.75	1,572.94
270	1991.09.27 08:45:00	0:15:00	4,434.62	1,108.66	1,963.58	490.90	8,277.91	2,069.48
270	1991.09.27 09:00:00	0:15:00	2,700.08	675.02	2,270.29	567.57	9,705.75	2,426.44
270	1991.09.27 09:15:00	0:15:00	1,521.63	380.41	2,560.87	640.22	10,593.61	2,648.40
270	1991.09.27 09:30:00	0:15:00	874.22	218.56	2,766.58	691.65	11,035.32	2,758.83
270	1991.09.27 09:45:00	0:15:00	683.40	170.85	2,933.59	733.40	11,059.14	2,764.78
270	1991.09.27 10:00:00	0:15:00	686.13	171.53	3,058.16	764.54	10,931.84	2,732.96
270	1991.09.27 10:15:00	0:15:00	692.08	173.02	3,178.51	794.63	10,805.53	2,701.38
270	1991.09.27 10:30:00	0:15:00	694.07	173.52	3,244.76	811.19	10,737.29	2,684.32
270	1991.09.27 10:45:00	0:15:00	698.78	174.70	3,330.62	832.66	10,646.72	2,661.68
270	1991.09.27 11:00:00	0:15:00	701.51	175.38	3,365.11	841.28	10,609.50	2,652.37
270	1991.09.27 11:15:00	0:15:00	686.87	171.72	3,438.07	859.52	10,551.18	2,637.80
270	1991.09.27 11:30:00	0:15:00	665.53	166.38	3,473.30	868.33	10,537.29	2,634.32
270	1991.09.27 11:45:00	0:15:00	644.44	161.11	3,576.78	894.20	10,454.90	2,613.73
270	1991.09.27 12:00:00	0:15:00	624.09	156.02	3,655.69	913.92	10,396.34	2,599.09
270	1991.09.27 12:15:00	0:15:00	607.21	151.80	3,787.21	946.80	10,281.70	2,570.42
270	1991.09.27 12:30:00	0:15:00	573.71	143.43	3,881.26	970.31	10,221.15	2,555.29
270	1991.09.27 12:45:00	0:15:00	544.43	136.11	4,027.91	1,006.98	10,103.77	2,525.94
270	1991.09.27 13:00:00	0:15:00	542.45	135.61	4,113.77	1,028.44	10,019.90	2,504.98
270	1991.09.27 13:15:00	0:15:00	612.43	153.11	4,189.70	1,047.43	9,873.99	2,468.50
270	1991.09.27 13:30:00	0:15:00	697.54	174.39	4,108.81	1,027.20	9,869.77	2,467.44
270	1991.09.27 13:45:00	0:15:00	954.62	238.66	4,054.71	1,013.68	9,666.79	2,416.70
270	1991.09.27 14:00:00	0:15:00	1,266.79	316.70	4,000.12	1,000.03	9,409.21	2,352.30
270	1991.09.27 14:15:00	0:15:00	1,603.52	400.88	4,153.97	1,038.49	8,918.63	2,229.66
270	1991.09.27 14:30:00	0:15:00	1,932.07	483.02	4,261.91	1,065.48	8,482.14	2,120.53
270	1991.09.27 14:45:00	0:15:00	2,312.23	578.06	4,408.07	1,102.02	7,955.82	1,988.96
270	1991.09.27 15:00:00	0:15:00	2,709.01	677.25	4,572.34	1,143.09	7,394.76	1,848.69
270	1991.09.27 15:15:00	0:15:00	3,150.47	787.62	4,822.72	1,205.68	6,702.93	1,675.73
270	1991.09.27 15:30:00	0:15:00	3,616.98	904.25	5,016.53	1,254.13	6,042.61	1,510.65
270	1991.09.27 15:45:00	0:15:00	4,123.20	1,030.80	5,233.16	1,308.29	5,319.76	1,329.94
270	1991.09.27 16:00:00	0:15:00	4,689.72	1,172.43	5,492.47	1,373.12	4,493.93	1,123.48
270	1991.09.27 16:15:00	0:15:00	5,376.34	1,344.09	5,251.52	1,312.88	4,048.26	1,012.07
270	1991.09.27 16:30:00	0:15:00	6,228.47	1,557.12	4,610.31	1,152.58	3,837.34	959.33
270	1991.09.27 16:45:00	0:15:00	7,305.43	1,826.36	4,022.20	1,005.55	3,348.49	837.12
270	1991.09.27 17:00:00	0:15:00	8,635.74	2,158.94	3,500.35	875.09	2,540.03	635.01
270	1991.09.27 17:15:00	0:15:00	10,365.32	2,591.33	3,034.58	758.65	1,276.22	319.05
270	1991.09.27 17:30:00	0:15:00	11,867.10	2,966.78	2,401.56	600.39	407.46	101.86
270	1991.09.27 17:45:00	0:13:48	12,938.60	2,975.88	1,605.26	369.21	132.26	30.42
270	1991.09.27 17:58:11	0:06:36	13,643.33	1,500.77	1,002.76	110.30	30.03	3.30
277	1991.10.04 08:09:36	0:02:24	12,082.49	483.30	469.99	18.80	2,123.64	84.95
277	1991.10.04 08:15:00	0:10:12	10,675.75	1,814.88	949.90	161.48	3,050.46	518.58
277	1991.10.04 08:30:00	0:15:00	7,873.44	1,968.36	1,608.73	402.18	5,193.95	1,298.49
277	1991.10.04 08:45:00	0:15:00	5,319.02	1,329.75	2,075.25	518.81	7,281.85	1,820.46
277	1991.10.04 09:00:00	0:15:00	3,329.13	832.28	2,551.69	637.92	8,795.30	2,198.83
277	1991.10.04 09:15:00	0:15:00	1,947.95	486.99	2,926.89	731.72	9,801.28	2,450.32
277	1991.10.04 09:30:00	0:15:00	1,105.49	276.37	3,164.36	791.09	10,406.26	2,601.57
277	1991.10.04 09:45:00	0:15:00	747.91	186.98	3,353.45	838.36	10,574.76	2,643.69
277	1991.10.04 10:00:00	0:15:00	741.96	185.49	3,478.02	869.51	10,456.14	2,614.04
277	1991.10.04 10:15:00	0:15:00	746.92	186.73	3,605.57	901.39	10,323.63	2,580.91
277	1991.10.04 10:30:00	0:15:00	743.70	185.92	3,687.21	921.80	10,245.22	2,561.30
277	1991.10.04 10:45:00	0:15:00	746.92	186.73	3,751.23	937.81	10,177.97	2,544.49
277	1991.10.04 11:00:00	0:15:00	748.91	187.23	3,769.09	942.27	10,158.12	2,539.53
277	1991.10.04 11:15:00	0:15:00	732.78	183.19	3,838.58	959.64	10,104.77	2,526.19
277	1991.10.04 11:30:00	0:15:00	707.22	176.80	3,895.15	973.79	10,073.75	2,518.44

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
277	1991.10.04 11:45:00	0:15:00	686.37	171.59	4,017.49	1,004.37	9,972.26	2,493.06
277	1991.10.04 12:00:00	0:15:00	665.28	166.32	4,135.11	1,033.78	9,875.73	2,468.93
277	1991.10.04 12:15:00	0:15:00	648.16	162.04	4,287.72	1,071.93	9,740.24	2,435.06
277	1991.10.04 12:30:00	0:15:00	614.91	153.73	4,394.67	1,098.67	9,666.54	2,416.64
277	1991.10.04 12:45:00	0:15:00	587.61	146.90	4,550.76	1,137.69	9,537.75	2,384.44
277	1991.10.04 13:00:00	0:15:00	592.33	148.08	4,650.01	1,162.50	9,433.78	2,358.45
277	1991.10.04 13:15:00	0:15:00	672.48	168.12	4,719.00	1,179.75	9,284.64	2,321.16
277	1991.10.04 13:30:00	0:15:00	787.62	196.90	4,615.03	1,153.76	9,273.48	2,318.37
277	1991.10.04 13:45:00	0:15:00	1,079.44	269.86	4,534.63	1,133.66	9,062.06	2,265.51
277	1991.10.04 14:00:00	0:15:00	1,401.28	350.32	4,542.57	1,135.64	8,732.27	2,183.07
277	1991.10.04 14:15:00	0:15:00	1,737.77	434.44	4,746.54	1,186.64	8,191.81	2,047.95
277	1991.10.04 14:30:00	0:15:00	2,086.17	521.54	4,882.53	1,220.63	7,707.43	1,926.86
277	1991.10.04 14:45:00	0:15:00	2,483.95	620.99	5,126.46	1,281.61	7,065.72	1,766.43
277	1991.10.04 15:00:00	0:15:00	2,901.33	725.33	5,354.75	1,338.69	6,420.04	1,605.01
277	1991.10.04 15:15:00	0:15:00	3,360.89	840.22	5,688.75	1,422.19	5,626.47	1,406.62
277	1991.10.04 15:30:00	0:15:00	3,858.92	964.73	5,946.83	1,486.71	4,870.37	1,217.59
277	1991.10.04 15:45:00	0:15:00	4,399.39	1,099.85	6,330.71	1,582.68	3,946.02	986.51
277	1991.10.04 16:00:00	0:15:00	5,011.07	1,252.77	6,427.24	1,606.81	3,237.81	809.45
277	1991.10.04 16:15:00	0:15:00	5,782.31	1,445.58	5,865.68	1,466.42	3,028.13	757.03
277	1991.10.04 16:30:00	0:15:00	6,768.69	1,692.17	5,159.46	1,289.87	2,747.97	686.99
277	1991.10.04 16:45:00	0:15:00	8,077.66	2,019.42	4,402.12	1,100.53	2,196.34	549.09
277	1991.10.04 17:00:00	0:15:00	9,723.86	2,430.97	3,753.46	938.37	1,198.80	299.70
277	1991.10.04 17:15:00	0:15:00	11,353.94	2,838.48	2,999.59	749.90	322.59	80.65
277	1991.10.04 17:30:00	0:16:12	12,558.69	3,390.85	2,117.43	571.71	0.00	0.00
277	1991.10.04 17:47:23	0:08:24	14,003.89	1,960.54	671.24	93.97	0.99	0.14
284	1991.10.11 08:16:11	0:07:12	11,621.19	1,394.54	724.34	86.92	2,330.59	279.67
284	1991.10.11 08:30:00	0:14:24	8,779.42	2,107.06	1,518.41	364.42	4,378.29	1,050.79
284	1991.10.11 08:45:00	0:15:00	6,216.31	1,554.08	2,213.71	553.43	6,246.09	1,561.52
284	1991.10.11 09:00:00	0:15:00	4,005.58	1,001.39	2,786.44	696.61	7,884.11	1,971.03
284	1991.10.11 09:15:00	0:15:00	2,379.72	594.93	3,273.30	818.33	9,023.10	2,255.77
284	1991.10.11 09:30:00	0:15:00	1,366.29	341.57	3,569.09	892.27	9,740.74	2,435.18
284	1991.10.11 09:45:00	0:15:00	860.08	215.02	3,805.08	951.27	10,010.97	2,502.74
284	1991.10.11 10:00:00	0:15:00	803.50	200.87	3,940.32	985.08	9,932.30	2,483.08
284	1991.10.11 10:15:00	0:15:00	803.99	201.00	4,072.58	1,018.14	9,799.55	2,449.89
284	1991.10.11 10:30:00	0:15:00	803.75	200.94	4,141.56	1,035.39	9,730.81	2,432.70
284	1991.10.11 10:45:00	0:15:00	800.02	200.01	4,203.60	1,050.90	9,672.50	2,418.12
284	1991.10.11 11:00:00	0:15:00	799.28	199.82	4,184.99	1,046.25	9,691.85	2,422.96
284	1991.10.11 11:15:00	0:15:00	783.65	195.91	4,229.16	1,057.29	9,663.31	2,415.83
284	1991.10.11 11:30:00	0:15:00	752.88	188.22	4,270.85	1,067.71	9,652.40	2,413.10
284	1991.10.11 11:45:00	0:15:00	730.54	182.64	4,388.47	1,097.12	9,557.11	2,389.28
284	1991.10.11 12:00:00	0:15:00	708.21	177.05	4,513.04	1,128.26	9,454.87	2,363.72
284	1991.10.11 12:15:00	0:15:00	691.34	172.83	4,674.58	1,168.65	9,310.20	2,327.55
284	1991.10.11 12:30:00	0:15:00	657.84	164.46	4,815.78	1,203.94	9,202.51	2,300.63
284	1991.10.11 12:45:00	0:15:00	629.80	157.45	4,999.40	1,249.85	9,046.92	2,261.73
284	1991.10.11 13:00:00	0:15:00	657.84	164.46	5,147.05	1,286.76	8,871.23	2,217.81
284	1991.10.11 13:15:00	0:15:00	743.94	185.99	5,181.79	1,295.45	8,750.38	2,187.60
284	1991.10.11 13:30:00	0:15:00	895.56	223.89	5,099.16	1,274.79	8,681.40	2,170.35
284	1991.10.11 13:45:00	0:15:00	1,200.28	300.07	5,034.39	1,258.60	8,441.44	2,110.36
284	1991.10.11 14:00:00	0:15:00	1,531.31	382.83	5,131.17	1,282.79	8,013.64	2,003.41
284	1991.10.11 14:15:00	0:15:00	1,873.75	468.44	5,388.99	1,347.25	7,413.37	1,853.34
284	1991.10.11 14:30:00	0:15:00	2,248.70	562.18	5,603.14	1,400.79	6,824.27	1,706.07
284	1991.10.11 14:45:00	0:15:00	2,653.43	663.36	5,933.68	1,483.42	6,089.01	1,522.25
284	1991.10.11 15:00:00	0:15:00	3,087.69	771.92	6,245.84	1,561.46	5,342.59	1,335.65
284	1991.10.11 15:15:00	0:15:00	3,556.43	889.11	6,675.14	1,668.78	4,444.55	1,111.14
284	1991.10.11 15:30:00	0:15:00	4,078.53	1,019.63	7,040.16	1,760.04	3,557.43	889.36
284	1991.10.11 15:45:00	0:15:00	4,644.31	1,161.08	7,627.52	1,906.88	2,404.29	601.07
284	1991.10.11 16:00:00	0:15:00	5,305.62	1,326.40	7,122.05	1,780.51	2,248.45	562.11

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
284	1991.10.11 16:15:00	0:15:00	6,170.90	1,542.73	6,406.39	1,601.60	2,098.82	524.71
284	1991.10.11 16:30:00	0:15:00	7,336.94	1,834.24	5,548.55	1,387.14	1,790.62	447.66
284	1991.10.11 16:45:00	0:15:00	8,892.32	2,223.08	4,586.24	1,146.56	1,197.55	299.39
284	1991.10.11 17:00:00	0:15:00	10,815.46	2,703.86	3,719.96	929.99	140.70	35.18
284	1991.10.11 17:15:00	0:15:00	11,900.60	2,975.15	2,737.30	684.33	38.22	9.55
284	1991.10.11 17:30:00	0:11:24	13,170.37	2,502.37	1,505.75	286.09	0.00	0.00
284	1991.10.11 17:37:12	0:03:36	13,989.25	839.36	686.87	41.21	0.00	0.00
291	1991.10.18 08:22:48	0:03:36	11,172.04	670.32	1,159.34	69.56	2,344.74	140.68
291	1991.10.18 08:30:00	0:10:48	9,684.65	1,743.24	1,552.65	279.48	3,438.81	618.99
291	1991.10.18 08:45:00	0:15:00	7,219.07	1,804.77	2,353.92	588.48	5,103.13	1,275.78
291	1991.10.18 09:00:00	0:15:00	4,778.06	1,194.51	3,000.09	750.02	6,897.97	1,724.49
291	1991.10.18 09:15:00	0:15:00	2,908.77	727.19	3,576.78	894.20	8,190.57	2,047.64
291	1991.10.18 09:30:00	0:15:00	1,648.44	412.11	3,948.75	987.19	9,078.93	2,269.73
291	1991.10.18 09:45:00	0:15:00	1,014.17	253.54	4,245.54	1,061.38	9,416.41	2,354.10
291	1991.10.18 10:00:00	0:15:00	870.00	217.50	4,431.40	1,107.85	9,374.72	2,343.68
291	1991.10.18 10:15:00	0:15:00	864.29	216.07	4,588.47	1,147.12	9,223.35	2,305.84
291	1991.10.18 10:30:00	0:15:00	857.84	214.46	4,674.58	1,168.65	9,143.70	2,285.92
291	1991.10.18 10:45:00	0:15:00	857.35	214.34	4,746.05	1,186.51	9,072.73	2,268.18
291	1991.10.18 11:00:00	0:15:00	850.89	212.72	4,693.19	1,173.30	9,132.03	2,283.01
291	1991.10.18 11:15:00	0:15:00	838.98	209.75	4,706.34	1,176.59	9,130.79	2,282.70
291	1991.10.18 11:30:00	0:15:00	803.99	201.00	4,698.65	1,174.66	9,173.47	2,293.37
291	1991.10.18 11:45:00	0:15:00	778.19	194.55	4,799.89	1,199.97	9,098.04	2,274.51
291	1991.10.18 12:00:00	0:15:00	755.11	188.78	4,905.85	1,226.46	9,015.16	2,253.79
291	1991.10.18 12:15:00	0:15:00	737.99	184.50	5,078.56	1,269.64	8,859.57	2,214.89
291	1991.10.18 12:30:00	0:15:00	701.01	175.25	5,224.97	1,306.24	8,750.14	2,187.53
291	1991.10.18 12:45:00	0:15:00	676.70	169.17	5,440.36	1,360.09	8,559.06	2,139.77
291	1991.10.18 13:00:00	0:15:00	717.64	179.41	5,633.17	1,408.29	8,325.31	2,081.33
291	1991.10.18 13:15:00	0:15:00	810.45	202.61	5,655.01	1,413.75	8,210.67	2,052.67
291	1991.10.18 13:30:00	0:15:00	1,001.02	250.26	5,576.59	1,394.15	8,098.50	2,024.63
291	1991.10.18 13:45:00	0:15:00	1,314.18	328.55	5,577.34	1,394.33	7,784.60	1,946.15
291	1991.10.18 14:00:00	0:15:00	1,654.89	413.72	5,784.79	1,446.20	7,236.44	1,809.11
291	1991.10.18 14:15:00	0:15:00	2,005.77	501.44	6,109.61	1,527.40	6,560.74	1,640.19
291	1991.10.18 14:30:00	0:15:00	2,396.85	599.21	6,408.88	1,602.22	5,870.40	1,467.60
291	1991.10.18 14:45:00	0:15:00	2,810.75	702.69	6,792.01	1,698.00	5,073.35	1,268.34
291	1991.10.18 15:00:00	0:15:00	3,254.69	813.67	7,199.47	1,799.87	4,221.96	1,055.49
291	1991.10.18 15:15:00	0:15:00	3,743.78	935.95	7,729.01	1,932.25	3,203.32	800.83
291	1991.10.18 15:30:00	0:15:00	4,281.02	1,070.26	8,311.91	2,077.98	2,083.19	520.80
291	1991.10.18 15:45:00	0:15:00	4,862.43	1,215.61	8,523.33	2,130.83	1,290.36	322.59
291	1991.10.18 16:00:00	0:15:00	5,607.86	1,401.97	7,750.85	1,937.71	1,317.41	329.35
291	1991.10.18 16:15:00	0:15:00	6,596.72	1,649.18	6,909.63	1,727.41	1,169.76	292.44
291	1991.10.18 16:30:00	0:15:00	7,968.72	1,992.18	5,659.47	1,414.87	1,047.92	261.98
291	1991.10.18 16:45:00	0:15:00	9,795.33	2,448.83	4,608.82	1,152.21	271.97	67.99
291	1991.10.18 17:00:00	0:15:00	11,160.38	2,790.10	3,515.74	878.93	0.00	0.00
291	1991.10.18 17:15:00	0:13:12	12,240.56	2,692.92	2,435.56	535.82	0.00	0.00
291	1991.10.18 17:27:00	0:06:00	13,822.49	1,382.25	853.62	85.36	0.00	0.00
298	1991.10.25 07:30:00	0:07:48	10,870.05	1,413.11	1,695.83	220.46	2,110.24	274.33
298	1991.10.25 07:45:00	0:15:00	8,025.05	2,006.26	2,543.00	635.75	4,108.06	1,027.02
298	1991.10.25 08:00:00	0:15:00	5,561.21	1,390.30	3,234.09	808.52	5,880.82	1,470.21
298	1991.10.25 08:15:00	0:15:00	3,557.92	889.48	3,846.02	961.51	7,272.18	1,818.04
298	1991.10.25 08:30:00	0:15:00	2,061.60	515.40	4,302.11	1,075.53	8,312.41	2,078.10
298	1991.10.25 08:45:00	0:15:00	1,215.92	303.98	4,660.93	1,165.23	8,799.27	2,199.82
298	1991.10.25 09:00:00	0:15:00	933.78	233.44	4,905.36	1,226.34	8,836.99	2,209.25
298	1991.10.25 09:15:00	0:15:00	929.31	232.33	5,097.42	1,274.36	8,649.39	2,162.35
298	1991.10.25 09:30:00	0:15:00	920.13	230.03	5,201.89	1,300.47	8,554.10	2,138.53
298	1991.10.25 09:45:00	0:15:00	913.43	228.36	5,325.47	1,331.37	8,437.22	2,109.31
298	1991.10.25 10:00:00	0:15:00	907.72	226.93	5,281.05	1,320.26	8,487.35	2,121.84
298	1991.10.25 10:15:00	0:15:00	895.31	223.83	5,291.47	1,322.87	8,489.33	2,122.33

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
298	1991.10.25 10:30:00	0:15:00	861.32	215.33	5,276.34	1,319.08	8,538.47	2,134.62
298	1991.10.25 10:45:00	0:15:00	830.55	207.64	5,381.80	1,345.45	8,463.78	2,115.94
298	1991.10.25 11:00:00	0:15:00	802.51	200.63	5,484.03	1,371.01	8,389.58	2,097.40
298	1991.10.25 11:15:00	0:15:00	785.63	196.41	5,661.71	1,415.43	8,228.78	2,057.20
298	1991.10.25 11:30:00	0:15:00	750.64	187.66	5,796.45	1,449.11	8,129.03	2,032.26
298	1991.10.25 11:45:00	0:15:00	730.54	182.64	6,044.60	1,511.15	7,900.98	1,975.25
298	1991.10.25 12:00:00	0:15:00	778.44	194.61	6,236.17	1,559.04	7,661.52	1,915.38
298	1991.10.25 12:15:00	0:15:00	877.20	219.30	6,258.00	1,564.50	7,540.92	1,885.23
298	1991.10.25 12:30:00	0:15:00	1,100.78	275.19	6,160.73	1,540.18	7,414.61	1,853.65
298	1991.10.25 12:45:00	0:15:00	1,424.11	356.03	6,213.09	1,553.27	7,038.92	1,759.73
298	1991.10.25 13:00:00	0:15:00	1,764.07	441.02	6,443.12	1,610.78	6,468.93	1,617.23
298	1991.10.25 13:15:00	0:15:00	2,135.80	533.95	6,745.11	1,686.28	5,795.21	1,448.80
298	1991.10.25 13:30:00	0:15:00	2,531.09	632.77	7,000.21	1,750.05	5,144.82	1,286.20
298	1991.10.25 13:45:00	0:15:00	2,950.21	737.55	7,380.12	1,845.03	4,345.79	1,086.45
298	1991.10.25 14:00:00	0:15:00	3,406.06	851.51	7,952.84	1,988.21	3,317.22	829.31
298	1991.10.25 14:15:00	0:15:00	3,901.11	975.28	8,758.32	2,189.58	2,016.69	504.17
298	1991.10.25 14:30:00	0:15:00	4,442.32	1,110.58	9,769.02	2,442.26	464.78	116.20
298	1991.10.25 14:45:00	0:15:00	5,060.94	1,265.24	9,211.19	2,302.80	403.98	101.00
298	1991.10.25 15:00:00	0:15:00	5,887.77	1,471.94	8,321.84	2,080.46	466.52	116.63
298	1991.10.25 15:15:00	0:15:00	7,060.26	1,765.07	7,082.10	1,770.52	533.76	133.44
298	1991.10.25 15:30:00	0:15:00	8,590.08	2,147.52	5,663.69	1,415.92	422.35	105.59
298	1991.10.25 15:45:00	0:15:00	10,256.38	2,564.10	4,419.73	1,104.93	0.00	0.00
298	1991.10.25 16:00:00	0:15:00	11,499.85	2,874.96	3,176.27	794.07	0.00	0.00
298	1991.10.25 16:15:00	0:09:00	13,115.77	1,967.37	1,560.34	234.05	0.00	0.00
298	1991.10.25 16:18:00	0:01:48	13,602.64	408.08	1,073.48	32.20	0.00	0.00
305	1991.11.01 07:36:35	0:04:12	11,353.94	794.78	1,537.52	107.63	1,784.67	124.93
305	1991.11.01 07:45:00	0:11:24	9,157.34	1,739.90	2,438.29	463.27	3,080.49	585.29
305	1991.11.01 08:00:00	0:15:00	6,341.13	1,585.28	3,514.50	878.62	4,820.49	1,205.12
305	1991.11.01 08:15:00	0:15:00	4,206.08	1,051.52	4,099.38	1,024.84	6,370.66	1,592.67
305	1991.11.01 08:30:00	0:15:00	2,513.47	628.37	4,610.06	1,152.52	7,552.58	1,888.15
305	1991.11.01 08:45:00	0:15:00	1,465.55	366.39	5,037.37	1,259.34	8,173.20	2,043.30
305	1991.11.01 09:00:00	0:15:00	1,030.30	257.58	5,348.79	1,337.20	8,297.02	2,074.26
305	1991.11.01 09:15:00	0:15:00	993.83	248.46	5,594.96	1,398.74	8,087.34	2,021.83
305	1991.11.01 09:30:00	0:15:00	981.67	245.42	5,723.25	1,430.81	7,971.20	1,992.80
305	1991.11.01 09:45:00	0:15:00	973.48	243.37	5,873.62	1,468.41	7,829.02	1,957.25
305	1991.11.01 10:00:00	0:15:00	962.81	240.70	5,870.15	1,467.54	7,843.16	1,960.79
305	1991.11.01 10:15:00	0:15:00	953.38	238.35	5,883.80	1,470.95	7,838.94	1,959.74
305	1991.11.01 10:30:00	0:15:00	915.41	228.85	5,872.13	1,468.03	7,888.57	1,972.14
305	1991.11.01 10:45:00	0:15:00	885.14	221.28	5,967.42	1,491.86	7,823.56	1,955.89
305	1991.11.01 11:00:00	0:15:00	855.86	213.96	6,083.31	1,520.83	7,736.95	1,934.24
305	1991.11.01 11:15:00	0:15:00	836.01	209.00	6,286.29	1,571.57	7,553.82	1,888.46
305	1991.11.01 11:30:00	0:15:00	802.51	200.63	6,436.42	1,609.11	7,437.19	1,859.30
305	1991.11.01 11:45:00	0:15:00	785.14	196.28	6,724.52	1,681.13	7,166.47	1,791.62
305	1991.11.01 12:00:00	0:15:00	840.72	210.18	6,909.14	1,727.28	6,926.26	1,731.57
305	1991.11.01 12:15:00	0:15:00	944.20	236.05	6,934.95	1,733.74	6,796.98	1,699.24
305	1991.11.01 12:30:00	0:15:00	1,187.13	296.78	6,804.92	1,701.23	6,684.07	1,671.02
305	1991.11.01 12:45:00	0:15:00	1,517.91	379.48	6,925.02	1,731.26	6,233.19	1,558.30
305	1991.11.01 13:00:00	0:15:00	1,859.86	464.96	7,105.42	1,776.36	5,710.84	1,427.71
305	1991.11.01 13:15:00	0:15:00	2,245.48	561.37	7,352.08	1,838.02	5,078.56	1,269.64
305	1991.11.01 13:30:00	0:15:00	2,640.03	660.01	7,562.26	1,890.57	4,473.83	1,118.46
305	1991.11.01 13:45:00	0:15:00	3,068.58	767.14	7,968.97	1,992.24	3,638.57	909.64
305	1991.11.01 14:00:00	0:15:00	3,524.92	881.23	8,705.22	2,176.31	2,445.98	611.50
305	1991.11.01 14:15:00	0:15:00	4,029.40	1,007.35	9,641.48	2,410.37	1,005.24	251.31
305	1991.11.01 14:30:00	0:15:00	4,570.36	1,142.59	10,094.84	2,523.71	10.92	2.73
305	1991.11.01 14:45:00	0:15:00	5,243.08	1,310.77	9,433.03	2,358.26	0.00	0.00
305	1991.11.01 15:00:00	0:15:00	6,171.90	1,542.97	8,498.52	2,124.63	5.71	1.43
305	1991.11.01 15:15:00	0:15:00	7,484.34	1,871.09	7,056.54	1,764.13	135.24	33.81

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
305	1991.11.01 15:30:00	0:15:00	9,149.65	2,287.41	5,478.57	1,369.64	47.89	11.97
305	1991.11.01 15:45:00	0:15:00	10,472.77	2,618.19	4,203.35	1,050.84	0.00	0.00
305	1991.11.01 16:00:00	0:12:36	11,890.92	2,497.09	2,785.19	584.89	0.00	0.00
305	1991.11.01 16:10:12	0:05:24	13,398.16	1,205.84	1,277.95	115.02	0.00	0.00
312	1991.11.08 07:43:48	0:00:36	11,964.38	119.64	1,216.66	12.17	1,495.08	14.95
312	1991.11.08 07:45:00	0:07:48	11,771.81	1,530.34	1,251.90	162.75	1,652.41	214.81
312	1991.11.08 08:00:00	0:15:00	7,892.29	1,973.07	3,082.47	770.62	3,701.35	925.34
312	1991.11.08 08:15:00	0:15:00	4,875.08	1,218.77	4,326.43	1,081.61	5,474.60	1,368.65
312	1991.11.08 08:30:00	0:15:00	3,038.06	759.51	4,858.46	1,214.61	6,779.61	1,694.90
312	1991.11.08 08:45:00	0:15:00	1,790.87	447.72	5,344.58	1,336.14	7,540.67	1,885.17
312	1991.11.08 09:00:00	0:15:00	1,182.17	295.54	5,748.31	1,437.08	7,745.64	1,936.41
312	1991.11.08 09:15:00	0:15:00	1,064.55	266.14	6,050.30	1,512.58	7,561.27	1,890.32
312	1991.11.08 09:30:00	0:15:00	1,044.20	261.05	6,223.01	1,555.75	7,408.91	1,852.23
312	1991.11.08 09:45:00	0:15:00	1,031.30	257.82	6,400.44	1,600.11	7,244.38	1,811.10
312	1991.11.08 10:00:00	0:15:00	1,019.14	254.78	6,433.44	1,608.36	7,223.54	1,805.89
312	1991.11.08 10:15:00	0:15:00	1,014.42	253.61	6,459.00	1,614.75	7,202.70	1,800.67
312	1991.11.08 10:30:00	0:15:00	973.23	243.31	6,462.72	1,615.68	7,240.17	1,810.04
312	1991.11.08 10:45:00	0:15:00	939.98	235.00	6,547.84	1,636.96	7,188.30	1,797.08
312	1991.11.08 11:00:00	0:15:00	907.47	226.87	6,674.89	1,668.72	7,093.76	1,773.44
312	1991.11.08 11:15:00	0:15:00	890.10	222.53	6,894.99	1,723.75	6,891.02	1,722.76
312	1991.11.08 11:30:00	0:15:00	853.62	213.41	7,063.73	1,765.93	6,758.76	1,689.69
312	1991.11.08 11:45:00	0:15:00	836.25	209.06	7,397.49	1,849.37	6,442.38	1,610.59
312	1991.11.08 12:00:00	0:15:00	897.05	224.26	7,588.56	1,897.14	6,190.51	1,547.63
312	1991.11.08 12:15:00	0:15:00	1,006.73	251.68	7,608.91	1,902.23	6,060.48	1,515.12
312	1991.11.08 12:30:00	0:15:00	1,257.36	314.34	7,461.51	1,865.38	5,957.25	1,489.31
312	1991.11.08 12:45:00	0:15:00	1,591.11	397.78	7,598.74	1,899.68	5,486.27	1,371.57
312	1991.11.08 13:00:00	0:15:00	1,941.75	485.44	7,723.55	1,930.89	5,010.82	1,252.71
312	1991.11.08 13:15:00	0:15:00	2,327.86	581.97	7,911.15	1,977.79	4,437.10	1,109.28
312	1991.11.08 13:30:00	0:15:00	2,723.41	680.85	8,059.79	2,014.95	3,892.92	973.23
312	1991.11.08 13:45:00	0:15:00	3,155.43	788.86	8,534.50	2,133.62	2,986.19	746.55
312	1991.11.08 14:00:00	0:15:00	3,610.53	902.63	9,250.15	2,312.54	1,815.44	453.86
312	1991.11.08 14:15:00	0:15:00	4,106.82	1,026.71	10,167.55	2,541.89	401.75	100.44
312	1991.11.08 14:30:00	0:15:00	4,649.77	1,162.44	10,026.35	2,506.59	0.00	0.00
312	1991.11.08 14:45:00	0:15:00	5,373.11	1,343.28	9,303.01	2,325.75	0.00	0.00
312	1991.11.08 15:00:00	0:15:00	6,422.52	1,605.63	8,253.60	2,063.40	0.00	0.00
312	1991.11.08 15:15:00	0:15:00	7,807.68	1,951.92	6,868.44	1,717.11	0.00	0.00
312	1991.11.08 15:30:00	0:15:00	9,337.75	2,334.44	5,338.37	1,334.59	0.00	0.00
312	1991.11.08 15:45:00	0:15:00	10,759.87	2,689.97	3,916.25	979.06	0.00	0.00
312	1991.11.08 16:00:00	0:09:00	12,544.79	1,881.72	2,131.33	319.70	0.00	0.00
312	1991.11.08 16:03:00	0:01:48	13,089.22	392.68	1,586.90	47.61	0.00	0.00
319	1991.11.15 07:51:00	0:04:48	12,515.76	1,001.26	987.87	79.03	1,172.49	93.80
319	1991.11.15 08:00:00	0:12:00	10,808.01	2,161.60	1,239.49	247.90	2,628.61	525.72
319	1991.11.15 08:15:00	0:15:00	6,510.62	1,627.65	3,693.16	923.29	4,472.34	1,118.09
319	1991.11.15 08:30:00	0:15:00	3,605.81	901.45	5,048.29	1,262.07	6,022.02	1,505.50
319	1991.11.15 08:45:00	0:15:00	2,183.19	545.80	5,615.30	1,403.83	6,877.62	1,719.41
319	1991.11.15 09:00:00	0:15:00	1,359.35	339.84	6,058.00	1,514.50	7,258.78	1,814.69
319	1991.11.15 09:15:00	0:15:00	1,129.56	282.39	6,460.74	1,615.18	7,085.82	1,771.46
319	1991.11.15 09:30:00	0:15:00	1,106.24	276.56	6,677.62	1,669.40	6,892.26	1,723.07
319	1991.11.15 09:45:00	0:15:00	1,091.84	272.96	6,884.82	1,721.21	6,699.45	1,674.86
319	1991.11.15 10:00:00	0:15:00	1,075.47	268.87	6,980.36	1,745.09	6,620.30	1,655.07
319	1991.11.15 10:15:00	0:15:00	1,065.54	266.39	7,014.60	1,753.65	6,595.98	1,648.99
319	1991.11.15 10:30:00	0:15:00	1,027.33	256.83	7,005.92	1,751.48	6,642.88	1,660.72
319	1991.11.15 10:45:00	0:15:00	993.58	248.39	7,099.47	1,774.87	6,583.07	1,645.77
319	1991.11.15 11:00:00	0:15:00	957.85	239.46	7,237.68	1,809.42	6,480.59	1,620.15
319	1991.11.15 11:15:00	0:15:00	939.48	234.87	7,473.17	1,868.29	6,263.46	1,565.87
319	1991.11.15 11:30:00	0:15:00	906.98	226.74	7,658.29	1,914.57	6,110.85	1,527.71
319	1991.11.15 11:45:00	0:15:00	886.63	221.66	8,025.55	2,006.39	5,763.94	1,440.99

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
319	1991.11.15 12:00:00	0:15:00	944.45	236.11	8,227.54	2,056.89	5,504.13	1,376.03
319	1991.11.15 12:15:00	0:15:00	1,062.31	265.58	8,253.84	2,063.46	5,359.96	1,339.99
319	1991.11.15 12:30:00	0:15:00	1,309.72	327.43	8,102.97	2,025.74	5,263.43	1,315.86
319	1991.11.15 12:45:00	0:15:00	1,642.48	410.62	8,222.08	2,055.52	4,811.56	1,202.89
319	1991.11.15 13:00:00	0:15:00	1,995.35	498.84	8,285.36	2,071.34	4,395.42	1,098.85
319	1991.11.15 13:15:00	0:15:00	2,382.21	595.55	8,414.39	2,103.60	3,879.52	969.88
319	1991.11.15 13:30:00	0:15:00	2,781.47	695.37	8,509.93	2,127.48	3,384.72	846.18
319	1991.11.15 13:45:00	0:15:00	3,208.04	802.01	9,017.14	2,254.29	2,450.94	612.74
319	1991.11.15 14:00:00	0:15:00	3,659.17	914.79	9,679.94	2,419.99	1,337.01	334.25
319	1991.11.15 14:15:00	0:15:00	4,147.27	1,036.82	10,528.85	2,632.21	0.00	0.00
319	1991.11.15 14:30:00	0:15:00	4,696.17	1,174.04	9,979.95	2,494.99	0.00	0.00
319	1991.11.15 14:45:00	0:15:00	5,457.48	1,364.37	9,218.64	2,304.66	0.00	0.00
319	1991.11.15 15:00:00	0:15:00	6,597.47	1,649.37	8,078.65	2,019.66	0.00	0.00
319	1991.11.15 15:15:00	0:15:00	7,995.03	1,998.76	6,681.09	1,670.27	0.00	0.00
319	1991.11.15 15:30:00	0:15:00	9,433.53	2,358.38	5,242.59	1,310.65	0.00	0.00
319	1991.11.15 15:45:00	0:13:48	10,989.90	2,527.68	3,686.21	847.83	0.00	0.00
319	1991.11.15 15:57:36	0:06:36	12,898.65	1,418.85	1,777.47	195.52	0.00	0.00
326	1991.11.22 07:57:36	0:01:12	13,461.44	269.23	277.18	5.54	937.50	18.75
326	1991.11.22 08:00:00	0:09:00	13,124.71	1,968.71	244.92	36.74	1,306.49	195.97
326	1991.11.22 08:15:00	0:15:00	9,575.97	2,393.99	1,696.58	424.14	3,403.58	850.89
326	1991.11.22 08:30:00	0:15:00	4,830.66	1,207.67	4,689.22	1,172.31	5,156.23	1,289.06
326	1991.11.22 08:45:00	0:15:00	2,595.86	648.97	5,709.60	1,427.40	6,370.66	1,592.67
326	1991.11.22 09:00:00	0:15:00	1,582.43	395.61	6,214.58	1,553.64	6,879.11	1,719.78
326	1991.11.22 09:15:00	0:15:00	1,198.55	299.64	6,673.90	1,668.47	6,803.68	1,700.92
326	1991.11.22 09:30:00	0:15:00	1,171.00	292.75	7,072.67	1,768.17	6,432.45	1,608.11
326	1991.11.22 09:45:00	0:15:00	1,150.65	287.66	7,310.39	1,827.60	6,215.07	1,553.77
326	1991.11.22 10:00:00	0:15:00	1,127.83	281.96	7,442.65	1,860.66	6,105.64	1,526.41
326	1991.11.22 10:15:00	0:15:00	1,117.65	279.41	7,508.16	1,877.04	6,050.30	1,512.58
326	1991.11.22 10:30:00	0:15:00	1,084.40	271.10	7,507.42	1,876.86	6,084.30	1,521.08
326	1991.11.22 10:45:00	0:15:00	1,044.20	261.05	7,603.70	1,900.93	6,028.22	1,507.06
326	1991.11.22 11:00:00	0:15:00	1,005.24	251.31	7,728.27	1,932.07	5,942.61	1,485.65
326	1991.11.22 11:15:00	0:15:00	985.64	246.41	7,986.34	1,996.59	5,704.14	1,426.04
326	1991.11.22 11:30:00	0:15:00	955.61	238.90	8,192.80	2,048.20	5,527.71	1,381.93
326	1991.11.22 11:45:00	0:15:00	936.50	234.13	8,565.76	2,141.44	5,173.85	1,293.46
326	1991.11.22 12:00:00	0:15:00	987.87	246.97	8,810.19	2,202.55	4,878.06	1,219.52
326	1991.11.22 12:15:00	0:15:00	1,101.77	275.44	8,841.45	2,210.36	4,732.90	1,183.22
326	1991.11.22 12:30:00	0:15:00	1,341.23	335.31	8,671.72	2,167.93	4,663.17	1,165.79
326	1991.11.22 12:45:00	0:15:00	1,670.27	417.57	8,770.73	2,192.68	4,235.11	1,058.78
326	1991.11.22 13:00:00	0:15:00	2,019.91	504.98	8,765.27	2,191.32	3,890.93	972.73
326	1991.11.22 13:15:00	0:15:00	2,409.25	602.31	8,838.23	2,209.56	3,428.64	857.16
326	1991.11.22 13:30:00	0:15:00	2,804.80	701.20	8,888.35	2,222.09	2,982.97	745.74
326	1991.11.22 13:45:00	0:15:00	3,220.44	805.11	9,389.11	2,347.28	2,066.56	516.64
326	1991.11.22 14:00:00	0:15:00	3,667.35	916.84	9,993.85	2,498.46	1,014.92	253.73
326	1991.11.22 14:15:00	0:15:00	4,136.35	1,034.09	10,539.77	2,634.94	0.00	0.00
326	1991.11.22 14:30:00	0:15:00	4,690.46	1,172.62	9,985.66	2,496.41	0.00	0.00
326	1991.11.22 14:45:00	0:15:00	5,505.37	1,376.34	9,170.74	2,292.69	0.00	0.00
326	1991.11.22 15:00:00	0:15:00	6,635.43	1,658.86	8,040.69	2,010.17	0.00	0.00
326	1991.11.22 15:15:00	0:15:00	8,018.85	2,004.71	6,657.27	1,664.32	0.00	0.00
326	1991.11.22 15:30:00	0:15:00	9,536.02	2,384.00	5,140.10	1,285.03	0.00	0.00
326	1991.11.22 15:45:00	0:12:00	11,207.03	2,241.41	3,469.09	693.82	0.00	0.00
326	1991.11.22 15:54:00	0:04:48	13,074.83	1,045.99	1,601.29	128.10	0.00	0.00
333	1991.11.29 08:04:12	0:05:24	14,134.41	1,272.10	9.43	0.85	532.27	47.91
333	1991.11.29 08:15:00	0:12:36	11,493.15	2,413.56	874.96	183.74	2,308.01	484.68
333	1991.11.29 08:30:00	0:15:00	7,586.83	1,896.71	2,894.38	723.60	4,194.91	1,048.73
333	1991.11.29 08:45:00	0:15:00	3,437.08	859.27	5,464.68	1,366.17	5,774.37	1,443.59
333	1991.11.29 09:00:00	0:15:00	1,882.69	470.67	6,238.15	1,559.54	6,555.28	1,638.82
333	1991.11.29 09:15:00	0:15:00	1,301.03	325.26	6,735.44	1,683.86	6,639.65	1,659.91

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
333	1991.11.29 09:30:00	0:15:00	1,215.67	303.92	7,162.00	1,790.50	6,298.45	1,574.61
333	1991.11.29 09:45:00	0:15:00	1,202.52	300.63	7,596.50	1,899.13	5,877.10	1,469.27
333	1991.11.29 10:00:00	0:15:00	1,175.97	293.99	7,806.68	1,951.67	5,693.47	1,423.37
333	1991.11.29 10:15:00	0:15:00	1,163.31	290.83	7,931.25	1,982.81	5,581.56	1,395.39
333	1991.11.29 10:30:00	0:15:00	1,136.51	284.13	7,931.25	1,982.81	5,608.36	1,402.09
333	1991.11.29 10:45:00	0:15:00	1,091.60	272.90	8,032.74	2,008.19	5,551.78	1,387.94
333	1991.11.29 11:00:00	0:15:00	1,051.15	262.79	8,128.53	2,032.13	5,496.44	1,374.11
333	1991.11.29 11:15:00	0:15:00	1,025.84	256.46	8,408.44	2,102.11	5,241.84	1,310.46
333	1991.11.29 11:30:00	0:15:00	997.30	249.33	8,625.32	2,156.33	5,053.50	1,263.38
333	1991.11.29 11:45:00	0:15:00	977.20	244.30	8,967.26	2,241.82	4,731.65	1,182.91
333	1991.11.29 12:00:00	0:15:00	1,006.73	251.68	9,305.74	2,326.43	4,363.65	1,090.91
333	1991.11.29 12:15:00	0:15:00	1,114.67	278.67	9,360.58	2,340.14	4,200.87	1,050.22
333	1991.11.29 12:30:00	0:15:00	1,349.17	337.29	9,182.65	2,295.66	4,144.29	1,036.07
333	1991.11.29 12:45:00	0:15:00	1,673.25	418.31	9,232.78	2,308.20	3,770.09	942.52
333	1991.11.29 13:00:00	0:15:00	2,025.12	506.28	9,175.71	2,293.93	3,475.29	868.82
333	1991.11.29 13:15:00	0:15:00	2,405.03	601.26	9,197.54	2,299.39	3,073.54	768.39
333	1991.11.29 13:30:00	0:15:00	2,796.61	699.15	9,205.48	2,301.37	2,674.03	668.51
333	1991.11.29 13:45:00	0:15:00	3,203.82	800.95	9,661.33	2,415.33	1,810.97	452.74
333	1991.11.29 14:00:00	0:15:00	3,636.34	909.08	10,205.02	2,551.25	834.76	208.69
333	1991.11.29 14:15:00	0:15:00	4,091.44	1,022.86	10,584.68	2,646.17	0.00	0.00
333	1991.11.29 14:30:00	0:15:00	4,639.59	1,159.90	10,036.53	2,509.13	0.00	0.00
333	1991.11.29 14:45:00	0:15:00	5,488.00	1,372.00	9,188.11	2,297.03	0.00	0.00
333	1991.11.29 15:00:00	0:15:00	6,609.13	1,652.28	8,066.99	2,016.75	0.00	0.00
333	1991.11.29 15:15:00	0:15:00	7,915.12	1,978.78	6,761.00	1,690.25	0.00	0.00
333	1991.11.29 15:30:00	0:15:00	9,525.84	2,381.46	5,150.28	1,287.57	0.00	0.00
333	1991.11.29 15:45:00	0:10:48	11,552.70	2,079.49	3,123.42	562.22	0.00	0.00
333	1991.11.29 15:51:36	0:03:00	13,349.28	667.46	1,326.84	66.34	0.00	0.00
340	1991.12.06 08:10:12	0:02:24	14,458.99	578.36	0.00	0.00	217.13	8.69
340	1991.12.06 08:15:00	0:10:12	13,526.46	2,299.50	151.12	25.69	998.54	169.75
340	1991.12.06 08:30:00	0:15:00	9,531.05	2,382.76	1,883.93	470.98	3,261.14	815.29
340	1991.12.06 08:45:00	0:15:00	5,703.64	1,425.91	3,946.02	986.51	5,026.45	1,256.61
340	1991.12.06 09:00:00	0:15:00	2,226.37	556.59	6,194.73	1,548.68	6,255.02	1,563.76
340	1991.12.06 09:15:00	0:15:00	1,424.36	356.09	6,705.91	1,676.48	6,545.85	1,636.46
340	1991.12.06 09:30:00	0:15:00	1,238.75	309.69	7,159.52	1,789.88	6,277.85	1,569.46
340	1991.12.06 09:45:00	0:15:00	1,237.51	309.38	7,593.53	1,898.38	5,845.09	1,461.27
340	1991.12.06 10:00:00	0:15:00	1,215.92	303.98	8,000.98	2,000.25	5,459.22	1,364.81
340	1991.12.06 10:15:00	0:15:00	1,200.78	300.20	8,257.81	2,064.45	5,217.52	1,304.38
340	1991.12.06 10:30:00	0:15:00	1,179.69	294.92	8,242.43	2,060.61	5,254.00	1,313.50
340	1991.12.06 10:45:00	0:15:00	1,134.77	283.69	8,354.34	2,088.59	5,187.00	1,296.75
340	1991.12.06 11:00:00	0:15:00	1,089.86	272.47	8,421.84	2,105.46	5,164.42	1,291.11
340	1991.12.06 11:15:00	0:15:00	1,060.08	265.02	8,721.10	2,180.28	4,894.93	1,223.73
340	1991.12.06 11:30:00	0:15:00	1,034.52	258.63	8,945.43	2,236.36	4,696.17	1,174.04
340	1991.12.06 11:45:00	0:15:00	1,008.96	252.24	9,317.15	2,329.29	4,350.01	1,087.50
340	1991.12.06 12:00:00	0:15:00	1,040.23	260.06	9,697.56	2,424.39	3,938.33	984.58
340	1991.12.06 12:15:00	0:15:00	1,140.73	285.18	9,743.71	2,435.93	3,791.68	947.92
340	1991.12.06 12:30:00	0:15:00	1,340.24	335.06	9,579.94	2,394.98	3,755.94	938.99
340	1991.12.06 12:45:00	0:15:00	1,647.44	411.86	9,602.27	2,400.57	3,426.40	856.60
340	1991.12.06 13:00:00	0:15:00	1,997.58	499.39	9,509.22	2,377.30	3,169.33	792.33
340	1991.12.06 13:15:00	0:15:00	2,374.26	593.57	9,485.89	2,371.47	2,815.96	703.99
340	1991.12.06 13:30:00	0:15:00	2,756.66	689.16	9,436.01	2,359.00	2,483.45	620.86
340	1991.12.06 13:45:00	0:15:00	3,160.89	790.22	9,834.29	2,458.57	1,680.94	420.24
340	1991.12.06 14:00:00	0:15:00	3,582.24	895.56	10,322.64	2,580.66	771.24	192.81
340	1991.12.06 14:15:00	0:15:00	4,027.17	1,006.79	10,648.95	2,662.24	0.00	0.00
340	1991.12.06 14:30:00	0:15:00	4,551.50	1,137.88	10,124.62	2,531.15	0.00	0.00
340	1991.12.06 14:45:00	0:15:00	5,390.98	1,347.75	9,285.14	2,321.29	0.00	0.00
340	1991.12.06 15:00:00	0:15:00	6,466.20	1,616.55	8,209.92	2,052.48	0.00	0.00
340	1991.12.06 15:15:00	0:15:00	7,744.15	1,936.04	6,931.97	1,732.99	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
340	1991.12.06 15:30:00	0:15:00	9,412.44	2,353.11	5,263.68	1,315.92	0.00	0.00
340	1991.12.06 15:45:00	0:10:12	11,793.40	2,004.88	2,882.72	490.06	0.00	0.00
340	1991.12.06 15:51:00	0:03:00	13,537.62	676.88	1,138.50	56.93	0.00	0.00
347	1991.12.13 08:15:36	0:07:12	14,603.41	1,752.41	0.00	0.00	72.71	8.73
347	1991.12.13 08:30:00	0:15:00	11,016.95	2,754.24	1,243.71	310.93	2,415.46	603.86
347	1991.12.13 08:45:00	0:15:00	7,584.10	1,896.02	2,771.30	692.83	4,320.72	1,080.18
347	1991.12.13 09:00:00	0:15:00	3,301.59	825.40	5,518.28	1,379.57	5,856.25	1,464.06
347	1991.12.13 09:15:00	0:15:00	1,622.38	405.60	6,627.49	1,656.87	6,426.25	1,606.56
347	1991.12.13 09:30:00	0:15:00	1,256.86	314.22	7,095.50	1,773.87	6,323.76	1,580.94
347	1991.12.13 09:45:00	0:15:00	1,253.64	313.41	7,548.86	1,887.22	5,873.62	1,468.41
347	1991.12.13 10:00:00	0:15:00	1,243.21	310.80	7,949.12	1,987.28	5,483.79	1,370.95
347	1991.12.13 10:15:00	0:15:00	1,226.84	306.71	8,369.23	2,092.31	5,080.05	1,270.01
347	1991.12.13 10:30:00	0:15:00	1,205.25	301.31	8,447.65	2,111.91	5,023.23	1,255.81
347	1991.12.13 10:45:00	0:15:00	1,167.28	291.82	8,556.58	2,139.15	4,952.26	1,238.06
347	1991.12.13 11:00:00	0:15:00	1,117.65	279.41	8,613.16	2,153.29	4,945.31	1,236.33
347	1991.12.13 11:15:00	0:15:00	1,086.39	271.60	8,889.35	2,222.34	4,700.39	1,175.10
347	1991.12.13 11:30:00	0:15:00	1,058.59	264.65	9,121.36	2,280.34	4,496.16	1,124.04
347	1991.12.13 11:45:00	0:15:00	1,037.25	259.31	9,464.30	2,366.08	4,174.57	1,043.64
347	1991.12.13 12:00:00	0:15:00	1,039.49	259.87	9,882.68	2,470.67	3,753.96	938.49
347	1991.12.13 12:15:00	0:15:00	1,134.53	283.63	10,017.92	2,504.48	3,523.68	880.92
347	1991.12.13 12:30:00	0:15:00	1,306.24	326.56	9,863.57	2,465.89	3,506.31	876.58
347	1991.12.13 12:45:00	0:15:00	1,603.52	400.88	9,852.65	2,463.16	3,219.95	804.99
347	1991.12.13 13:00:00	0:15:00	1,945.47	486.37	9,733.04	2,433.26	2,997.61	749.40
347	1991.12.13 13:15:00	0:15:00	2,319.92	579.98	9,679.69	2,419.92	2,676.51	669.13
347	1991.12.13 13:30:00	0:15:00	2,695.86	673.97	9,578.70	2,394.67	2,401.56	600.39
347	1991.12.13 13:45:00	0:15:00	3,092.65	773.16	9,912.21	2,478.05	1,671.27	417.82
347	1991.12.13 14:00:00	0:15:00	3,501.84	875.46	10,331.82	2,582.96	842.46	210.61
347	1991.12.13 14:15:00	0:15:00	3,944.53	986.13	10,731.58	2,682.90	0.00	0.00
347	1991.12.13 14:30:00	0:15:00	4,439.59	1,109.90	10,236.53	2,559.13	0.00	0.00
347	1991.12.13 14:45:00	0:15:00	5,222.98	1,305.75	9,453.13	2,363.28	0.00	0.00
347	1991.12.13 15:00:00	0:15:00	6,258.00	1,564.50	8,418.12	2,104.53	0.00	0.00
347	1991.12.13 15:15:00	0:15:00	7,504.19	1,876.05	7,171.93	1,792.98	0.00	0.00
347	1991.12.13 15:30:00	0:15:00	9,145.93	2,286.48	5,530.19	1,382.55	0.00	0.00
347	1991.12.13 15:45:00	0:10:48	11,490.91	2,068.36	3,185.21	573.34	0.00	0.00
347	1991.12.13 15:52:11	0:03:36	13,691.97	821.52	984.15	59.05	0.00	0.00
354	1991.12.20 08:19:48	0:04:48	14,621.77	1,169.74	0.00	0.00	54.34	4.35
354	1991.12.20 08:30:00	0:12:36	12,302.60	2,583.55	690.10	144.92	1,683.43	353.52
354	1991.12.20 08:45:00	0:15:00	8,561.30	2,140.32	2,345.73	586.43	3,769.09	942.27
354	1991.12.20 09:00:00	0:15:00	4,447.78	1,111.94	4,754.24	1,188.56	5,474.11	1,368.53
354	1991.12.20 09:15:00	0:15:00	1,839.26	459.82	6,523.27	1,630.82	6,313.59	1,578.40
354	1991.12.20 09:30:00	0:15:00	1,303.26	325.82	7,005.67	1,751.42	6,367.19	1,591.80
354	1991.12.20 09:45:00	0:15:00	1,255.62	313.91	7,462.26	1,865.56	5,958.24	1,489.56
354	1991.12.20 10:00:00	0:15:00	1,253.64	313.41	7,874.68	1,968.67	5,547.81	1,386.95
354	1991.12.20 10:15:00	0:15:00	1,240.98	310.25	8,289.08	2,072.27	5,146.06	1,286.52
354	1991.12.20 10:30:00	0:15:00	1,216.91	304.23	8,527.30	2,131.83	4,931.91	1,232.98
354	1991.12.20 10:45:00	0:15:00	1,186.14	296.54	8,620.36	2,155.09	4,869.62	1,217.41
354	1991.12.20 11:00:00	0:15:00	1,135.77	283.94	8,677.93	2,169.48	4,862.43	1,215.61
354	1991.12.20 11:15:00	0:15:00	1,100.78	275.19	8,917.14	2,229.28	4,658.20	1,164.55
354	1991.12.20 11:30:00	0:15:00	1,071.50	267.87	9,144.44	2,286.11	4,460.18	1,115.05
354	1991.12.20 11:45:00	0:15:00	1,050.65	262.66	9,488.87	2,372.22	4,136.60	1,034.15
354	1991.12.20 12:00:00	0:15:00	1,031.54	257.89	9,911.96	2,477.99	3,732.62	933.15
354	1991.12.20 12:15:00	0:15:00	1,121.62	280.41	10,123.13	2,530.78	3,431.37	857.84
354	1991.12.20 12:30:00	0:15:00	1,264.80	316.20	10,001.04	2,500.26	3,410.28	852.57
354	1991.12.20 12:45:00	0:15:00	1,540.99	385.25	9,952.40	2,488.10	3,182.73	795.68
354	1991.12.20 13:00:00	0:15:00	1,874.99	468.75	9,841.48	2,460.37	2,959.64	739.91
354	1991.12.20 13:15:00	0:15:00	2,243.00	560.75	9,764.56	2,441.14	2,668.57	667.14
354	1991.12.20 13:30:00	0:15:00	2,617.70	654.42	9,648.67	2,412.17	2,409.75	602.44

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
354	1991.12.20 13:45:00	0:15:00	3,007.78	751.95	9,892.85	2,473.21	1,775.49	443.87
354	1991.12.20 14:00:00	0:15:00	3,416.48	854.12	10,289.64	2,572.41	970.00	242.50
354	1991.12.20 14:15:00	0:15:00	3,850.24	962.56	10,825.88	2,706.47	0.00	0.00
354	1991.12.20 14:30:00	0:15:00	4,320.97	1,080.24	10,355.15	2,588.79	0.00	0.00
354	1991.12.20 14:45:00	0:15:00	5,006.35	1,251.59	9,669.77	2,417.44	0.00	0.00
354	1991.12.20 15:00:00	0:15:00	6,026.73	1,506.68	8,649.39	2,162.35	0.00	0.00
354	1991.12.20 15:15:00	0:15:00	7,213.37	1,803.34	7,462.75	1,865.69	0.00	0.00
354	1991.12.20 15:30:00	0:15:00	8,789.59	2,197.40	5,886.53	1,471.63	0.00	0.00
354	1991.12.20 15:45:00	0:12:36	10,864.34	2,281.51	3,811.78	800.47	0.00	0.00
354	1991.12.20 15:54:36	0:04:48	13,682.79	1,094.62	993.33	79.47	0.00	0.00
			4,132,728.04	893,322.14	3,519,722.26	872,879.72	9,166,380.54	2,278,976.46

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EXHIBIT D.1.B

Marshall Elementary School Outdoor Learning Area

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Marshall Elementary Outdoor Learning Area

Summary of Results

cadp annualized net new shadow	17,285.98 Sq ft hrs
Annual Available Sunlight (AAS), based on City's AAS Factor	9,592,306.69 Sq ft hrs
Annual Shadow Increase as a Percentage of AAS	0.18021%

Annual Existing Shadow on Outdoor Learning Area % of AAS

cadp annualized existing shadow on outdoor learning area	6,022,989.94 sq ft hrs
Annual Available Sunlight (AAS) based on City AAS Factor	9,592,306.69 sq ft hrs
Annual Existing Shadow on Outdoor Learning Area % of AAS	62.790%

Marshall Elementary Outdoor Learning Area

IMPACT TIMES

Date+Time	Duration	ExSF	ExSfHr	NewSF	NewSFHr
11.29 12:15:00	0:15:00	95.04	23.76	47.89	11.97
11.29 12:30:00	0:15:00	72.46	18.11	119.60	29.90
11.29 12:45:00	0:15:00	52.85	13.21	160.54	40.14
11.29 13:00:00	0:15:00	101.49	25.37	83.87	20.97
11.29 13:30:00	0:15:00	1,162.75	290.69	12.90	3.23
11.29 13:45:00	0:15:00	1,814.35	453.59	35.48	8.87
12.06 12:15:00	0:15:00	99.25	24.81	94.29	23.57
12.06 12:30:00	0:15:00	77.91	19.48	251.86	62.96
12.06 12:45:00	0:15:00	56.57	14.14	320.09	80.02
12.06 13:00:00	0:15:00	75.18	18.80	206.45	51.61
12.06 13:15:00	0:15:00	535.47	133.87	75.93	18.98
12.06 13:30:00	0:15:00	1,123.05	280.76	104.71	26.18
12.06 13:45:00	0:15:00	1,785.32	446.33	96.77	24.19
12.13 12:15:00	0:15:00	106.45	26.61	79.90	19.98
12.13 12:30:00	0:15:00	83.37	20.84	297.51	74.38
12.13 12:45:00	0:15:00	60.79	15.20	424.31	106.08
12.13 13:00:00	0:15:00	54.59	13.65	321.83	80.46
12.13 13:15:00	0:15:00	452.60	113.15	192.55	48.14
12.13 13:30:00	0:15:00	1,043.15	260.79	178.16	44.54
12.13 13:45:00	0:15:00	1,704.43	426.11	143.42	35.86
12.13 14:00:00	0:15:00	2,409.37	602.34	6.45	1.61
12.20 12:15:00	0:15:00	111.91	27.98	35.24	8.81
12.20 12:30:00	0:15:00	88.58	22.15	275.68	68.92
12.20 12:45:00	0:15:00	66.00	16.50	458.80	114.70
12.20 13:00:00	0:15:00	48.39	12.10	409.67	102.42
12.20 13:15:00	0:15:00	342.18	85.54	268.23	67.06
12.20 13:30:00	0:15:00	924.54	231.14	210.42	52.60
12.20 13:45:00	0:15:00	1,577.13	394.28	175.68	43.92
12.20 14:00:00	0:15:00	2,285.80	571.45	33.00	8.25
				5,121.22	1,280.31



Marshall Elementary Outdoor Learning Area

FULL SUN ANGLE SAMPLE

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	06.21 06:46:48	0:06:36	2,474.14	272.16	0.00	0.00	103.47	11.38
172	06.21 07:00:00	0:13:48	2,488.28	572.30	0.00	0.00	89.33	20.55
172	06.21 07:15:00	0:15:00	2,503.66	625.92	0.00	0.00	73.94	18.49
172	06.21 07:30:00	0:15:00	2,519.54	629.89	0.00	0.00	58.06	14.52
172	06.21 07:45:00	0:15:00	2,534.43	633.61	0.00	0.00	43.18	10.79
172	06.21 08:00:00	0:15:00	2,548.58	637.14	0.00	0.00	29.03	7.26
172	06.21 08:15:00	0:15:00	2,561.73	640.43	0.00	0.00	15.88	3.97
172	06.21 08:30:00	0:15:00	2,572.89	643.22	0.00	0.00	4.72	1.18
172	06.21 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
172	06.21 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
172	06.21 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
172	06.21 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
172	06.21 09:45:00	0:15:00	2,403.42	600.85	0.00	0.00	174.19	43.55
172	06.21 10:00:00	0:15:00	2,120.55	530.14	0.00	0.00	457.06	114.27
172	06.21 10:15:00	0:15:00	1,859.26	464.82	0.00	0.00	718.35	179.59
172	06.21 10:30:00	0:15:00	1,618.08	404.52	0.00	0.00	959.53	239.88
172	06.21 10:45:00	0:15:00	1,414.86	353.71	0.00	0.00	1,162.75	290.69
172	06.21 11:00:00	0:15:00	1,236.45	309.11	0.00	0.00	1,341.16	335.29
172	06.21 11:15:00	0:15:00	1,066.72	266.68	0.00	0.00	1,510.88	377.72
172	06.21 11:30:00	0:15:00	906.68	226.67	0.00	0.00	1,670.93	417.73
172	06.21 11:45:00	0:15:00	751.35	187.84	0.00	0.00	1,826.26	456.57
172	06.21 12:00:00	0:15:00	603.96	150.99	0.00	0.00	1,973.65	493.41
172	06.21 12:15:00	0:15:00	454.58	113.65	0.00	0.00	2,123.03	530.76
172	06.21 12:30:00	0:15:00	314.88	78.72	0.00	0.00	2,262.73	565.68
172	06.21 12:45:00	0:15:00	171.21	42.80	0.00	0.00	2,406.40	601.60
172	06.21 13:00:00	0:15:00	36.48	9.12	0.00	0.00	2,541.13	635.28
172	06.21 13:15:00	0:15:00	15.63	3.91	0.00	0.00	2,561.97	640.49
172	06.21 13:30:00	0:15:00	13.40	3.35	0.00	0.00	2,564.21	641.05
172	06.21 13:45:00	0:15:00	11.66	2.92	0.00	0.00	2,565.94	641.49
172	06.21 14:00:00	0:15:00	8.93	2.23	0.00	0.00	2,568.67	642.17
172	06.21 14:15:00	0:15:00	7.20	1.80	0.00	0.00	2,570.41	642.60
172	06.21 14:30:00	0:15:00	5.46	1.37	0.00	0.00	2,572.15	643.04
172	06.21 14:45:00	0:15:00	3.72	0.93	0.00	0.00	2,573.89	643.47
172	06.21 15:00:00	0:15:00	53.10	13.28	0.00	0.00	2,524.51	631.13
172	06.21 15:15:00	0:15:00	328.03	82.01	0.00	0.00	2,249.58	562.39
172	06.21 15:30:00	0:15:00	649.61	162.40	0.00	0.00	1,927.99	482.00
172	06.21 15:45:00	0:15:00	1,038.44	259.61	0.00	0.00	1,539.17	384.79
172	06.21 16:00:00	0:15:00	1,461.75	365.44	0.00	0.00	1,115.86	278.96
172	06.21 16:15:00	0:15:00	1,917.82	479.46	0.00	0.00	659.79	164.95
172	06.21 16:30:00	0:15:00	2,405.15	601.29	0.00	0.00	172.45	43.11
172	06.21 16:45:00	0:15:00	2,501.93	625.48	0.00	0.00	75.68	18.92
172	06.21 17:00:00	0:15:00	2,558.00	639.50	0.00	0.00	19.60	4.90
172	06.21 17:15:00	0:15:00	2,571.90	642.98	0.00	0.00	5.71	1.43
172	06.21 17:30:00	0:15:00	2,538.15	634.54	0.00	0.00	39.45	9.86
172	06.21 17:45:00	0:15:00	2,493.99	623.50	0.00	0.00	83.62	20.91
172	06.21 18:00:00	0:15:00	2,449.07	612.27	0.00	0.00	128.53	32.13
172	06.21 18:15:00	0:15:00	2,403.91	600.98	0.00	0.00	173.69	43.42
172	06.21 18:30:00	0:15:00	2,359.00	589.75	0.00	0.00	218.61	54.65

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	06.21 18:45:00	0:15:00	2,313.84	578.46	0.00	0.00	263.77	65.94
172	06.21 19:00:00	0:15:00	2,266.70	566.67	0.00	0.00	310.91	77.73
172	06.21 19:15:00	0:18:00	2,217.57	665.27	0.00	0.00	360.04	108.01
172	06.21 19:36:00	0:10:48	2,233.45	402.02	0.00	0.00	344.16	61.95
179	06.28 06:48:35	0:06:00	2,475.87	247.59	0.00	0.00	101.74	10.17
179	06.28 07:00:00	0:13:12	2,488.03	547.37	0.00	0.00	89.58	19.71
179	06.28 07:15:00	0:15:00	2,503.66	625.92	0.00	0.00	73.94	18.49
179	06.28 07:30:00	0:15:00	2,518.80	629.70	0.00	0.00	58.81	14.70
179	06.28 07:45:00	0:15:00	2,533.94	633.48	0.00	0.00	43.67	10.92
179	06.28 08:00:00	0:15:00	2,548.08	637.02	0.00	0.00	29.53	7.38
179	06.28 08:15:00	0:15:00	2,561.73	640.43	0.00	0.00	15.88	3.97
179	06.28 08:30:00	0:15:00	2,572.64	643.16	0.00	0.00	4.96	1.24
179	06.28 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
179	06.28 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
179	06.28 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
179	06.28 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
179	06.28 09:45:00	0:15:00	2,439.40	609.85	0.00	0.00	138.21	34.55
179	06.28 10:00:00	0:15:00	2,152.06	538.02	0.00	0.00	425.55	106.39
179	06.28 10:15:00	0:15:00	1,890.53	472.63	0.00	0.00	687.08	171.77
179	06.28 10:30:00	0:15:00	1,646.36	411.59	0.00	0.00	931.24	232.81
179	06.28 10:45:00	0:15:00	1,435.70	358.93	0.00	0.00	1,141.91	285.48
179	06.28 11:00:00	0:15:00	1,256.30	314.07	0.00	0.00	1,321.31	330.33
179	06.28 11:15:00	0:15:00	1,086.08	271.52	0.00	0.00	1,491.53	372.88
179	06.28 11:30:00	0:15:00	924.30	231.07	0.00	0.00	1,653.31	413.33
179	06.28 11:45:00	0:15:00	768.22	192.06	0.00	0.00	1,809.39	452.35
179	06.28 12:00:00	0:15:00	619.34	154.84	0.00	0.00	1,958.27	489.57
179	06.28 12:15:00	0:15:00	469.96	117.49	0.00	0.00	2,107.64	526.91
179	06.28 12:30:00	0:15:00	330.02	82.50	0.00	0.00	2,247.59	561.90
179	06.28 12:45:00	0:15:00	185.60	46.40	0.00	0.00	2,392.00	598.00
179	06.28 13:00:00	0:15:00	51.12	12.78	0.00	0.00	2,526.49	631.62
179	06.28 13:15:00	0:15:00	15.88	3.97	0.00	0.00	2,561.73	640.43
179	06.28 13:30:00	0:15:00	13.65	3.41	0.00	0.00	2,563.96	640.99
179	06.28 13:45:00	0:15:00	12.16	3.04	0.00	0.00	2,565.45	641.36
179	06.28 14:00:00	0:15:00	9.43	2.36	0.00	0.00	2,568.18	642.04
179	06.28 14:15:00	0:15:00	7.94	1.99	0.00	0.00	2,569.67	642.42
179	06.28 14:30:00	0:15:00	5.71	1.43	0.00	0.00	2,571.90	642.98
179	06.28 14:45:00	0:15:00	3.97	0.99	0.00	0.00	2,573.64	643.41
179	06.28 15:00:00	0:15:00	41.19	10.30	0.00	0.00	2,536.42	634.10
179	06.28 15:15:00	0:15:00	304.96	76.24	0.00	0.00	2,272.65	568.16
179	06.28 15:30:00	0:15:00	621.82	155.46	0.00	0.00	1,955.79	488.95
179	06.28 15:45:00	0:15:00	1,005.19	251.30	0.00	0.00	1,572.42	393.11
179	06.28 16:00:00	0:15:00	1,428.50	357.13	0.00	0.00	1,149.10	287.28
179	06.28 16:15:00	0:15:00	1,876.88	469.22	0.00	0.00	700.73	175.18
179	06.28 16:30:00	0:15:00	2,367.93	591.98	0.00	0.00	209.67	52.42
179	06.28 16:45:00	0:15:00	2,494.48	623.62	0.00	0.00	83.13	20.78
179	06.28 17:00:00	0:15:00	2,553.79	638.45	0.00	0.00	23.82	5.96
179	06.28 17:15:00	0:15:00	2,574.63	643.66	0.00	0.00	2.98	0.74
179	06.28 17:30:00	0:15:00	2,544.61	636.15	0.00	0.00	33.00	8.25
179	06.28 17:45:00	0:15:00	2,501.68	625.42	0.00	0.00	75.93	18.98
179	06.28 18:00:00	0:15:00	2,456.52	614.13	0.00	0.00	121.09	30.27
179	06.28 18:15:00	0:15:00	2,412.35	603.09	0.00	0.00	165.26	41.31
179	06.28 18:30:00	0:15:00	2,367.19	591.80	0.00	0.00	210.42	52.60

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
179	06.28 18:45:00	0:15:00	2,321.53	580.38	0.00	0.00	256.07	64.02
179	06.28 19:00:00	0:15:00	2,274.64	568.66	0.00	0.00	302.97	75.74
179	06.28 19:15:00	0:18:00	2,225.75	667.73	0.00	0.00	351.85	105.56
179	06.28 19:36:36	0:10:48	2,241.39	403.45	0.00	0.00	336.22	60.52
186	07.05 06:52:12	0:03:36	2,481.08	148.87	0.00	0.00	96.52	5.79
186	07.05 07:00:00	0:11:24	2,489.52	473.01	0.00	0.00	88.09	16.74
186	07.05 07:15:00	0:15:00	2,503.66	625.92	0.00	0.00	73.94	18.49
186	07.05 07:30:00	0:15:00	2,520.78	630.20	0.00	0.00	56.82	14.21
186	07.05 07:45:00	0:15:00	2,535.92	633.98	0.00	0.00	41.69	10.42
186	07.05 08:00:00	0:15:00	2,550.06	637.52	0.00	0.00	27.54	6.89
186	07.05 08:15:00	0:15:00	2,562.97	640.74	0.00	0.00	14.64	3.66
186	07.05 08:30:00	0:15:00	2,573.64	643.41	0.00	0.00	3.97	0.99
186	07.05 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
186	07.05 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
186	07.05 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
186	07.05 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
186	07.05 09:45:00	0:15:00	2,489.52	622.38	0.00	0.00	88.09	22.02
186	07.05 10:00:00	0:15:00	2,194.74	548.68	0.00	0.00	382.87	95.72
186	07.05 10:15:00	0:15:00	1,927.25	481.81	0.00	0.00	650.36	162.59
186	07.05 10:30:00	0:15:00	1,679.37	419.84	0.00	0.00	898.24	224.56
186	07.05 10:45:00	0:15:00	1,462.25	365.56	0.00	0.00	1,115.36	278.84
186	07.05 11:00:00	0:15:00	1,279.87	319.97	0.00	0.00	1,297.74	324.43
186	07.05 11:15:00	0:15:00	1,106.43	276.61	0.00	0.00	1,471.18	367.80
186	07.05 11:30:00	0:15:00	944.64	236.16	0.00	0.00	1,632.96	408.24
186	07.05 11:45:00	0:15:00	786.09	196.52	0.00	0.00	1,791.52	447.88
186	07.05 12:00:00	0:15:00	634.48	158.62	0.00	0.00	1,943.13	485.78
186	07.05 12:15:00	0:15:00	484.85	121.21	0.00	0.00	2,092.76	523.19
186	07.05 12:30:00	0:15:00	343.66	85.92	0.00	0.00	2,233.94	558.49
186	07.05 12:45:00	0:15:00	198.51	49.63	0.00	0.00	2,379.10	594.78
186	07.05 13:00:00	0:15:00	63.03	15.76	0.00	0.00	2,514.58	628.65
186	07.05 13:15:00	0:15:00	16.38	4.09	0.00	0.00	2,561.23	640.31
186	07.05 13:30:00	0:15:00	14.39	3.60	0.00	0.00	2,563.22	640.80
186	07.05 13:45:00	0:15:00	12.90	3.23	0.00	0.00	2,564.70	641.18
186	07.05 14:00:00	0:15:00	10.17	2.54	0.00	0.00	2,567.43	641.86
186	07.05 14:15:00	0:15:00	8.69	2.17	0.00	0.00	2,568.92	642.23
186	07.05 14:30:00	0:15:00	6.20	1.55	0.00	0.00	2,571.40	642.85
186	07.05 14:45:00	0:15:00	4.47	1.12	0.00	0.00	2,573.14	643.29
186	07.05 15:00:00	0:15:00	36.48	9.12	0.00	0.00	2,541.13	635.28
186	07.05 15:15:00	0:15:00	291.56	72.89	0.00	0.00	2,286.05	571.51
186	07.05 15:30:00	0:15:00	606.93	151.73	0.00	0.00	1,970.67	492.67
186	07.05 15:45:00	0:15:00	993.28	248.32	0.00	0.00	1,584.33	396.08
186	07.05 16:00:00	0:15:00	1,415.60	353.90	0.00	0.00	1,162.01	290.50
186	07.05 16:15:00	0:15:00	1,865.96	466.49	0.00	0.00	711.65	177.91
186	07.05 16:30:00	0:15:00	2,356.02	589.01	0.00	0.00	221.58	55.40
186	07.05 16:45:00	0:15:00	2,487.53	621.88	0.00	0.00	90.07	22.52
186	07.05 17:00:00	0:15:00	2,550.81	637.70	0.00	0.00	26.80	6.70
186	07.05 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
186	07.05 17:30:00	0:15:00	2,556.52	639.13	0.00	0.00	21.09	5.27
186	07.05 17:45:00	0:15:00	2,516.32	629.08	0.00	0.00	61.29	15.32
186	07.05 18:00:00	0:15:00	2,471.16	617.79	0.00	0.00	106.45	26.61
186	07.05 18:15:00	0:15:00	2,426.25	606.56	0.00	0.00	151.36	37.84
186	07.05 18:30:00	0:15:00	2,380.59	595.15	0.00	0.00	197.02	49.25

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
186	07.05 18:45:00	0:15:00	2,335.43	583.86	0.00	0.00	242.18	60.54
186	07.05 19:00:00	0:15:00	2,288.53	572.13	0.00	0.00	289.08	72.27
186	07.05 19:15:00	0:18:00	2,240.15	672.04	0.00	0.00	337.46	101.24
186	07.05 19:36:00	0:10:48	2,252.55	405.46	0.00	0.00	325.05	58.51
193	07.12 06:56:24	0:01:48	2,489.52	74.69	0.00	0.00	88.09	2.64
193	07.12 07:00:00	0:09:00	2,493.24	373.99	0.00	0.00	84.37	12.66
193	07.12 07:15:00	0:15:00	2,509.12	627.28	0.00	0.00	68.49	17.12
193	07.12 07:30:00	0:15:00	2,524.75	631.19	0.00	0.00	52.85	13.21
193	07.12 07:45:00	0:15:00	2,540.14	635.04	0.00	0.00	37.47	9.37
193	07.12 08:00:00	0:15:00	2,554.03	638.51	0.00	0.00	23.57	5.89
193	07.12 08:15:00	0:15:00	2,566.94	641.73	0.00	0.00	10.67	2.67
193	07.12 08:30:00	0:15:00	2,576.12	644.03	0.00	0.00	1.49	0.37
193	07.12 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
193	07.12 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
193	07.12 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
193	07.12 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
193	07.12 09:45:00	0:15:00	2,549.82	637.45	0.00	0.00	27.79	6.95
193	07.12 10:00:00	0:15:00	2,247.59	561.90	0.00	0.00	330.02	82.50
193	07.12 10:15:00	0:15:00	1,972.91	493.23	0.00	0.00	604.70	151.18
193	07.12 10:30:00	0:15:00	1,720.56	430.14	0.00	0.00	857.05	214.26
193	07.12 10:45:00	0:15:00	1,491.53	372.88	0.00	0.00	1,086.08	271.52
193	07.12 11:00:00	0:15:00	1,306.17	326.54	0.00	0.00	1,271.43	317.86
193	07.12 11:15:00	0:15:00	1,130.74	282.69	0.00	0.00	1,446.86	361.72
193	07.12 11:30:00	0:15:00	964.74	241.19	0.00	0.00	1,612.87	403.22
193	07.12 11:45:00	0:15:00	805.19	201.30	0.00	0.00	1,772.42	443.10
193	07.12 12:00:00	0:15:00	652.09	163.02	0.00	0.00	1,925.51	481.38
193	07.12 12:15:00	0:15:00	499.74	124.94	0.00	0.00	2,077.87	519.47
193	07.12 12:30:00	0:15:00	357.81	89.45	0.00	0.00	2,219.80	554.95
193	07.12 12:45:00	0:15:00	211.66	52.91	0.00	0.00	2,365.95	591.49
193	07.12 13:00:00	0:15:00	73.70	18.42	0.00	0.00	2,503.91	625.98
193	07.12 13:15:00	0:15:00	17.87	4.47	0.00	0.00	2,559.74	639.94
193	07.12 13:30:00	0:15:00	15.38	3.85	0.00	0.00	2,562.22	640.56
193	07.12 13:45:00	0:15:00	13.65	3.41	0.00	0.00	2,563.96	640.99
193	07.12 14:00:00	0:15:00	11.17	2.79	0.00	0.00	2,566.44	641.61
193	07.12 14:15:00	0:15:00	9.18	2.30	0.00	0.00	2,568.43	642.11
193	07.12 14:30:00	0:15:00	7.20	1.80	0.00	0.00	2,570.41	642.60
193	07.12 14:45:00	0:15:00	4.96	1.24	0.00	0.00	2,572.64	643.16
193	07.12 15:00:00	0:15:00	38.21	9.55	0.00	0.00	2,539.39	634.85
193	07.12 15:15:00	0:15:00	291.31	72.83	0.00	0.00	2,286.30	571.58
193	07.12 15:30:00	0:15:00	611.15	152.79	0.00	0.00	1,966.46	491.61
193	07.12 15:45:00	0:15:00	997.50	249.37	0.00	0.00	1,580.11	395.03
193	07.12 16:00:00	0:15:00	1,423.54	355.89	0.00	0.00	1,154.07	288.52
193	07.12 16:15:00	0:15:00	1,880.11	470.03	0.00	0.00	697.50	174.38
193	07.12 16:30:00	0:15:00	2,372.90	593.22	0.00	0.00	204.71	51.18
193	07.12 16:45:00	0:15:00	2,483.56	620.89	0.00	0.00	94.04	23.51
193	07.12 17:00:00	0:15:00	2,552.30	638.07	0.00	0.00	25.31	6.33
193	07.12 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
193	07.12 17:30:00	0:15:00	2,571.16	642.79	0.00	0.00	6.45	1.61
193	07.12 17:45:00	0:15:00	2,536.91	634.23	0.00	0.00	40.69	10.17
193	07.12 18:00:00	0:15:00	2,491.26	622.81	0.00	0.00	86.35	21.59
193	07.12 18:15:00	0:15:00	2,446.10	611.52	0.00	0.00	131.51	32.88
193	07.12 18:30:00	0:15:00	2,400.94	600.23	0.00	0.00	176.67	44.17

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
193	07.12 18:45:00	0:15:00	2,355.03	588.76	0.00	0.00	222.58	55.64
193	07.12 19:00:00	0:15:00	2,308.38	577.10	0.00	0.00	269.22	67.31
193	07.12 19:15:00	0:16:48	2,259.25	632.59	0.00	0.00	318.36	89.14
193	07.12 19:33:36	0:09:00	2,266.70	340.00	0.00	0.00	310.91	46.64
200	07.19 07:01:11	0:07:48	2,500.93	325.12	0.00	0.00	76.67	9.97
200	07.19 07:16:11	0:14:24	2,517.31	604.15	0.00	0.00	60.30	14.47
200	07.19 07:30:00	0:14:24	2,531.45	607.55	0.00	0.00	46.15	11.08
200	07.19 07:45:00	0:15:00	2,546.34	636.59	0.00	0.00	31.27	7.82
200	07.19 08:00:00	0:15:00	2,559.99	640.00	0.00	0.00	17.62	4.40
200	07.19 08:15:00	0:15:00	2,571.90	642.98	0.00	0.00	5.71	1.43
200	07.19 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
200	07.19 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
200	07.19 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
200	07.19 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
200	07.19 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
200	07.19 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
200	07.19 10:00:00	0:15:00	2,305.65	576.41	0.00	0.00	271.95	67.99
200	07.19 10:15:00	0:15:00	2,022.53	505.63	0.00	0.00	555.07	138.77
200	07.19 10:30:00	0:15:00	1,763.48	440.87	0.00	0.00	814.13	203.53
200	07.19 10:45:00	0:15:00	1,523.54	380.88	0.00	0.00	1,054.07	263.52
200	07.19 11:00:00	0:15:00	1,333.72	333.43	0.00	0.00	1,243.89	310.97
200	07.19 11:15:00	0:15:00	1,154.32	288.58	0.00	0.00	1,423.29	355.82
200	07.19 11:30:00	0:15:00	986.33	246.58	0.00	0.00	1,591.28	397.82
200	07.19 11:45:00	0:15:00	821.07	205.27	0.00	0.00	1,756.53	439.13
200	07.19 12:00:00	0:15:00	667.73	166.93	0.00	0.00	1,909.88	477.47
200	07.19 12:15:00	0:15:00	514.63	128.66	0.00	0.00	2,062.98	515.75
200	07.19 12:30:00	0:15:00	370.46	92.62	0.00	0.00	2,207.14	551.79
200	07.19 12:45:00	0:15:00	221.34	55.33	0.00	0.00	2,356.27	589.07
200	07.19 13:00:00	0:15:00	80.89	20.22	0.00	0.00	2,496.72	624.18
200	07.19 13:15:00	0:15:00	19.35	4.84	0.00	0.00	2,558.25	639.56
200	07.19 13:30:00	0:15:00	17.37	4.34	0.00	0.00	2,560.24	640.06
200	07.19 13:45:00	0:15:00	15.14	3.78	0.00	0.00	2,562.47	640.62
200	07.19 14:00:00	0:15:00	12.90	3.23	0.00	0.00	2,564.70	641.18
200	07.19 14:15:00	0:15:00	10.92	2.73	0.00	0.00	2,566.69	641.67
200	07.19 14:30:00	0:15:00	7.69	1.92	0.00	0.00	2,569.92	642.48
200	07.19 14:45:00	0:15:00	5.96	1.49	0.00	0.00	2,571.65	642.91
200	07.19 15:00:00	0:15:00	47.64	11.91	0.00	0.00	2,529.97	632.49
200	07.19 15:15:00	0:15:00	315.13	78.78	0.00	0.00	2,262.48	565.62
200	07.19 15:30:00	0:15:00	632.24	158.06	0.00	0.00	1,945.36	486.34
200	07.19 15:45:00	0:15:00	1,029.26	257.31	0.00	0.00	1,548.35	387.09
200	07.19 16:00:00	0:15:00	1,459.77	364.94	0.00	0.00	1,117.84	279.46
200	07.19 16:15:00	0:15:00	1,929.48	482.37	0.00	0.00	648.12	162.03
200	07.19 16:30:00	0:15:00	2,395.48	598.87	0.00	0.00	182.13	45.53
200	07.19 16:45:00	0:15:00	2,481.58	620.40	0.00	0.00	96.03	24.01
200	07.19 17:00:00	0:15:00	2,556.27	639.07	0.00	0.00	21.34	5.34
200	07.19 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
200	07.19 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
200	07.19 17:45:00	0:15:00	2,557.51	639.38	0.00	0.00	20.10	5.03
200	07.19 18:00:00	0:15:00	2,516.57	629.14	0.00	0.00	61.04	15.26
200	07.19 18:15:00	0:15:00	2,471.65	617.91	0.00	0.00	105.95	26.49
200	07.19 18:30:00	0:15:00	2,425.50	606.38	0.00	0.00	152.11	38.03
200	07.19 18:45:00	0:15:00	2,379.60	594.90	0.00	0.00	198.01	49.50

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
200	07.19 19:00:00	0:15:00	2,332.70	583.18	0.00	0.00	244.91	61.23
200	07.19 19:15:00	0:15:00	2,283.57	570.89	0.00	0.00	294.04	73.51
200	07.19 19:30:00	0:07:48	2,295.23	298.38	0.00	0.00	282.38	36.71
207	07.26 07:07:12	0:03:36	2,515.82	150.95	0.00	0.00	61.79	3.71
207	07.26 07:15:00	0:11:24	2,524.26	479.61	0.00	0.00	53.35	10.14
207	07.26 07:30:00	0:15:00	2,540.14	635.04	0.00	0.00	37.47	9.37
207	07.26 07:45:00	0:15:00	2,554.03	638.51	0.00	0.00	23.57	5.89
207	07.26 08:00:00	0:15:00	2,566.94	641.73	0.00	0.00	10.67	2.67
207	07.26 08:15:00	0:15:00	2,576.37	644.09	0.00	0.00	1.24	0.31
207	07.26 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
207	07.26 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
207	07.26 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
207	07.26 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
207	07.26 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
207	07.26 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
207	07.26 10:00:00	0:15:00	2,373.15	593.29	0.00	0.00	204.46	51.12
207	07.26 10:15:00	0:15:00	2,078.36	519.59	0.00	0.00	499.24	124.81
207	07.26 10:30:00	0:15:00	1,811.12	452.78	0.00	0.00	766.48	191.62
207	07.26 10:45:00	0:15:00	1,561.50	390.38	0.00	0.00	1,016.11	254.03
207	07.26 11:00:00	0:15:00	1,362.00	340.50	0.00	0.00	1,215.60	303.90
207	07.26 11:15:00	0:15:00	1,178.63	294.66	0.00	0.00	1,398.97	349.74
207	07.26 11:30:00	0:15:00	1,006.92	251.73	0.00	0.00	1,570.68	392.67
207	07.26 11:45:00	0:15:00	840.43	210.11	0.00	0.00	1,737.18	434.30
207	07.26 12:00:00	0:15:00	682.61	170.65	0.00	0.00	1,894.99	473.75
207	07.26 12:15:00	0:15:00	526.79	131.70	0.00	0.00	2,050.82	512.71
207	07.26 12:30:00	0:15:00	378.90	94.73	0.00	0.00	2,198.71	549.68
207	07.26 12:45:00	0:15:00	229.03	57.26	0.00	0.00	2,348.58	587.15
207	07.26 13:00:00	0:15:00	85.61	21.40	0.00	0.00	2,492.00	623.00
207	07.26 13:15:00	0:15:00	21.34	5.34	0.00	0.00	2,556.27	639.07
207	07.26 13:30:00	0:15:00	19.60	4.90	0.00	0.00	2,558.00	639.50
207	07.26 13:45:00	0:15:00	17.37	4.34	0.00	0.00	2,560.24	640.06
207	07.26 14:00:00	0:15:00	14.14	3.54	0.00	0.00	2,563.46	640.87
207	07.26 14:15:00	0:15:00	11.91	2.98	0.00	0.00	2,565.70	641.42
207	07.26 14:30:00	0:15:00	9.43	2.36	0.00	0.00	2,568.18	642.04
207	07.26 14:45:00	0:15:00	6.95	1.74	0.00	0.00	2,570.66	642.67
207	07.26 15:00:00	0:15:00	68.73	17.18	0.00	0.00	2,508.87	627.22
207	07.26 15:15:00	0:15:00	348.88	87.22	0.00	0.00	2,228.73	557.18
207	07.26 15:30:00	0:15:00	674.92	168.73	0.00	0.00	1,902.69	475.67
207	07.26 15:45:00	0:15:00	1,087.07	271.77	0.00	0.00	1,490.54	372.63
207	07.26 16:00:00	0:15:00	1,524.78	381.19	0.00	0.00	1,052.83	263.21
207	07.26 16:15:00	0:15:00	2,001.69	500.42	0.00	0.00	575.92	143.98
207	07.26 16:30:00	0:15:00	2,393.99	598.50	0.00	0.00	183.62	45.91
207	07.26 16:45:00	0:15:00	2,486.29	621.57	0.00	0.00	91.31	22.83
207	07.26 17:00:00	0:15:00	2,566.94	641.73	0.00	0.00	10.67	2.67
207	07.26 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
207	07.26 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
207	07.26 17:45:00	0:15:00	2,574.63	643.66	0.00	0.00	2.98	0.74
207	07.26 18:00:00	0:15:00	2,545.60	636.40	0.00	0.00	32.01	8.00
207	07.26 18:15:00	0:15:00	2,500.69	625.17	0.00	0.00	76.92	19.23
207	07.26 18:30:00	0:15:00	2,454.78	613.70	0.00	0.00	122.83	30.71
207	07.26 18:45:00	0:15:00	2,408.13	602.03	0.00	0.00	169.48	42.37
207	07.26 19:00:00	0:15:00	2,361.48	590.37	0.00	0.00	216.12	54.03

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
207	07.26 19:15:00	0:12:36	2,312.85	485.70	0.00	0.00	264.76	55.60
207	07.26 19:25:12	0:05:24	2,311.11	208.00	0.00	0.00	266.50	23.99
214	08.02 07:12:36	0:01:12	2,533.19	50.66	0.00	0.00	44.42	0.89
214	08.02 07:15:00	0:09:00	2,534.93	380.24	0.00	0.00	42.68	6.40
214	08.02 07:30:00	0:15:00	2,550.06	637.52	0.00	0.00	27.54	6.89
214	08.02 07:45:00	0:15:00	2,563.71	640.93	0.00	0.00	13.90	3.47
214	08.02 08:00:00	0:15:00	2,574.88	643.72	0.00	0.00	2.73	0.68
214	08.02 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 10:00:00	0:15:00	2,439.15	609.79	0.00	0.00	138.46	34.62
214	08.02 10:15:00	0:15:00	2,134.19	533.55	0.00	0.00	443.41	110.85
214	08.02 10:30:00	0:15:00	1,856.28	464.07	0.00	0.00	721.32	180.33
214	08.02 10:45:00	0:15:00	1,598.97	399.74	0.00	0.00	978.64	244.66
214	08.02 11:00:00	0:15:00	1,388.55	347.14	0.00	0.00	1,189.05	297.26
214	08.02 11:15:00	0:15:00	1,199.97	299.99	0.00	0.00	1,377.64	344.41
214	08.02 11:30:00	0:15:00	1,024.54	256.14	0.00	0.00	1,553.07	388.27
214	08.02 11:45:00	0:15:00	853.83	213.46	0.00	0.00	1,723.78	430.95
214	08.02 12:00:00	0:15:00	694.28	173.57	0.00	0.00	1,883.33	470.83
214	08.02 12:15:00	0:15:00	534.73	133.68	0.00	0.00	2,042.88	510.72
214	08.02 12:30:00	0:15:00	383.37	95.84	0.00	0.00	2,194.24	548.56
214	08.02 12:45:00	0:15:00	231.51	57.88	0.00	0.00	2,346.10	586.53
214	08.02 13:00:00	0:15:00	85.11	21.28	0.00	0.00	2,492.50	623.12
214	08.02 13:15:00	0:15:00	24.07	6.02	0.00	0.00	2,553.54	638.38
214	08.02 13:30:00	0:15:00	21.84	5.46	0.00	0.00	2,555.77	638.94
214	08.02 13:45:00	0:15:00	19.60	4.90	0.00	0.00	2,558.00	639.50
214	08.02 14:00:00	0:15:00	15.88	3.97	0.00	0.00	2,561.73	640.43
214	08.02 14:15:00	0:15:00	12.90	3.23	0.00	0.00	2,564.70	641.18
214	08.02 14:30:00	0:15:00	10.42	2.61	0.00	0.00	2,567.19	641.80
214	08.02 14:45:00	0:15:00	7.69	1.92	0.00	0.00	2,569.92	642.48
214	08.02 15:00:00	0:15:00	116.13	29.03	0.00	0.00	2,461.48	615.37
214	08.02 15:15:00	0:15:00	397.01	99.25	0.00	0.00	2,180.59	545.15
214	08.02 15:30:00	0:15:00	747.38	186.84	0.00	0.00	1,830.23	457.56
214	08.02 15:45:00	0:15:00	1,169.70	292.43	0.00	0.00	1,407.91	351.98
214	08.02 16:00:00	0:15:00	1,625.52	406.38	0.00	0.00	952.09	238.02
214	08.02 16:15:00	0:15:00	2,117.07	529.27	0.00	0.00	460.54	115.13
214	08.02 16:30:00	0:15:00	2,398.70	599.68	0.00	0.00	178.90	44.73
214	08.02 16:45:00	0:15:00	2,501.68	625.42	0.00	0.00	75.93	18.98
214	08.02 17:00:00	0:15:00	2,576.12	644.03	0.00	0.00	1.49	0.37
214	08.02 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 17:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
214	08.02 18:00:00	0:15:00	2,570.16	642.54	0.00	0.00	7.44	1.86
214	08.02 18:15:00	0:15:00	2,532.70	633.17	0.00	0.00	44.91	11.23
214	08.02 18:30:00	0:15:00	2,486.79	621.70	0.00	0.00	90.82	22.70
214	08.02 18:45:00	0:15:00	2,440.14	610.04	0.00	0.00	137.47	34.37
214	08.02 19:00:00	0:15:00	2,392.50	598.13	0.00	0.00	185.11	46.28
214	08.02 19:15:00	0:09:00	2,344.11	351.62	0.00	0.00	233.49	35.02

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
214	08.02 19:18:36	0:01:48	2,332.45	69.97	0.00	0.00	245.16	7.36
221	08.09 07:19:12	0:05:24	2,551.31	229.62	0.00	0.00	26.30	2.37
221	08.09 07:30:00	0:12:36	2,561.73	537.96	0.00	0.00	15.88	3.34
221	08.09 07:45:00	0:15:00	2,573.14	643.29	0.00	0.00	4.47	1.12
221	08.09 08:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 10:00:00	0:15:00	2,511.36	627.84	0.00	0.00	66.25	16.56
221	08.09 10:15:00	0:15:00	2,192.26	548.06	0.00	0.00	385.35	96.34
221	08.09 10:30:00	0:15:00	1,903.93	475.98	0.00	0.00	673.68	168.42
221	08.09 10:45:00	0:15:00	1,637.68	409.42	0.00	0.00	939.93	234.98
221	08.09 11:00:00	0:15:00	1,413.61	353.40	0.00	0.00	1,163.99	291.00
221	08.09 11:15:00	0:15:00	1,221.06	305.27	0.00	0.00	1,356.54	339.14
221	08.09 11:30:00	0:15:00	1,039.93	259.98	0.00	0.00	1,537.68	384.42
221	08.09 11:45:00	0:15:00	864.74	216.19	0.00	0.00	1,712.86	428.22
221	08.09 12:00:00	0:15:00	701.97	175.49	0.00	0.00	1,875.64	468.91
221	08.09 12:15:00	0:15:00	539.44	134.86	0.00	0.00	2,038.17	509.54
221	08.09 12:30:00	0:15:00	384.85	96.21	0.00	0.00	2,192.75	548.19
221	08.09 12:45:00	0:15:00	229.28	57.32	0.00	0.00	2,348.33	587.08
221	08.09 13:00:00	0:15:00	79.40	19.85	0.00	0.00	2,498.20	624.55
221	08.09 13:15:00	0:15:00	26.80	6.70	0.00	0.00	2,550.81	637.70
221	08.09 13:30:00	0:15:00	24.81	6.20	0.00	0.00	2,552.79	638.20
221	08.09 13:45:00	0:15:00	21.34	5.34	0.00	0.00	2,556.27	639.07
221	08.09 14:00:00	0:15:00	17.87	4.47	0.00	0.00	2,559.74	639.94
221	08.09 14:15:00	0:15:00	15.38	3.85	0.00	0.00	2,562.22	640.56
221	08.09 14:30:00	0:15:00	11.66	2.92	0.00	0.00	2,565.94	641.49
221	08.09 14:45:00	0:15:00	9.68	2.42	0.00	0.00	2,567.93	641.98
221	08.09 15:00:00	0:15:00	178.16	44.54	0.00	0.00	2,399.45	599.86
221	08.09 15:15:00	0:15:00	468.97	117.24	0.00	0.00	2,108.64	527.16
221	08.09 15:30:00	0:15:00	846.88	211.72	0.00	0.00	1,730.73	432.68
221	08.09 15:45:00	0:15:00	1,286.32	321.58	0.00	0.00	1,291.29	322.82
221	08.09 16:00:00	0:15:00	1,753.56	438.39	0.00	0.00	824.05	206.01
221	08.09 16:15:00	0:15:00	2,261.73	565.43	0.00	0.00	315.87	78.97
221	08.09 16:30:00	0:15:00	2,417.56	604.39	0.00	0.00	160.05	40.01
221	08.09 16:45:00	0:15:00	2,529.72	632.43	0.00	0.00	47.89	11.97
221	08.09 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 17:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 18:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
221	08.09 18:15:00	0:15:00	2,561.97	640.49	0.00	0.00	15.63	3.91
221	08.09 18:30:00	0:15:00	2,520.54	630.13	0.00	0.00	57.07	14.27
221	08.09 18:45:00	0:20:24	2,474.14	841.21	0.00	0.00	103.47	35.18
221	08.09 19:10:48	0:12:36	2,391.01	502.11	0.00	0.00	186.60	39.19
228	08.16 07:25:12	0:02:24	2,568.67	102.75	0.00	0.00	8.93	0.36
228	08.16 07:30:00	0:10:12	2,572.15	437.27	0.00	0.00	5.46	0.93
228	08.16 07:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
228	08.16 08:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 10:00:00	0:15:00	2,576.86	644.22	0.00	0.00	0.74	0.19
228	08.16 10:15:00	0:15:00	2,252.80	563.20	0.00	0.00	324.81	81.20
228	08.16 10:30:00	0:15:00	1,952.06	488.02	0.00	0.00	625.54	156.39
228	08.16 10:45:00	0:15:00	1,676.39	419.10	0.00	0.00	901.22	225.31
228	08.16 11:00:00	0:15:00	1,439.92	359.98	0.00	0.00	1,137.69	284.42
228	08.16 11:15:00	0:15:00	1,241.16	310.29	0.00	0.00	1,336.45	334.11
228	08.16 11:30:00	0:15:00	1,055.06	263.77	0.00	0.00	1,522.55	380.64
228	08.16 11:45:00	0:15:00	875.66	218.92	0.00	0.00	1,701.95	425.49
228	08.16 12:00:00	0:15:00	706.93	176.73	0.00	0.00	1,870.68	467.67
228	08.16 12:15:00	0:15:00	541.18	135.30	0.00	0.00	2,036.43	509.11
228	08.16 12:30:00	0:15:00	382.87	95.72	0.00	0.00	2,194.74	548.68
228	08.16 12:45:00	0:15:00	223.82	55.95	0.00	0.00	2,353.79	588.45
228	08.16 13:00:00	0:15:00	71.21	17.80	0.00	0.00	2,506.39	626.60
228	08.16 13:15:00	0:15:00	30.02	7.51	0.00	0.00	2,547.58	636.90
228	08.16 13:30:00	0:15:00	26.80	6.70	0.00	0.00	2,550.81	637.70
228	08.16 13:45:00	0:15:00	23.57	5.89	0.00	0.00	2,554.03	638.51
228	08.16 14:00:00	0:15:00	20.35	5.09	0.00	0.00	2,557.26	639.32
228	08.16 14:15:00	0:15:00	16.87	4.22	0.00	0.00	2,560.73	640.18
228	08.16 14:30:00	0:15:00	13.15	3.29	0.00	0.00	2,564.46	641.11
228	08.16 14:45:00	0:15:00	28.29	7.07	0.00	0.00	2,549.32	637.33
228	08.16 15:00:00	0:15:00	250.86	62.72	0.00	0.00	2,326.74	581.69
228	08.16 15:15:00	0:15:00	554.83	138.71	0.00	0.00	2,022.78	505.70
228	08.16 15:30:00	0:15:00	967.47	241.87	0.00	0.00	1,610.14	402.53
228	08.16 15:45:00	0:15:00	1,419.57	354.89	0.00	0.00	1,158.04	289.51
228	08.16 16:00:00	0:15:00	1,913.11	478.28	0.00	0.00	664.50	166.13
228	08.16 16:15:00	0:15:00	2,309.62	577.41	0.00	0.00	267.98	67.00
228	08.16 16:30:00	0:15:00	2,446.59	611.65	0.00	0.00	131.01	32.75
228	08.16 16:45:00	0:15:00	2,566.94	641.73	0.00	0.00	10.67	2.67
228	08.16 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 17:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 18:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 18:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
228	08.16 18:30:00	0:15:00	2,554.03	638.51	0.00	0.00	23.57	5.89
228	08.16 18:45:00	0:16:12	2,510.11	677.73	0.00	0.00	67.49	18.22
228	08.16 19:02:23	0:08:24	2,454.78	343.67	0.00	0.00	122.83	17.20
235	08.23 07:31:48	0:06:36	2,577.61	283.54	0.00	0.00	0.00	0.00
235	08.23 07:45:00	0:13:48	2,577.61	592.85	0.00	0.00	0.00	0.00
235	08.23 08:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
235	08.23 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 10:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 10:15:00	0:15:00	2,311.61	577.90	0.00	0.00	266.00	66.50
235	08.23 10:30:00	0:15:00	1,996.98	499.24	0.00	0.00	580.63	145.16
235	08.23 10:45:00	0:15:00	1,711.13	427.78	0.00	0.00	866.48	216.62
235	08.23 11:00:00	0:15:00	1,461.26	365.31	0.00	0.00	1,116.35	279.09
235	08.23 11:15:00	0:15:00	1,255.55	313.89	0.00	0.00	1,322.05	330.51
235	08.23 11:30:00	0:15:00	1,064.99	266.25	0.00	0.00	1,512.62	378.16
235	08.23 11:45:00	0:15:00	880.62	220.16	0.00	0.00	1,696.98	424.25
235	08.23 12:00:00	0:15:00	706.19	176.55	0.00	0.00	1,871.42	467.86
235	08.23 12:15:00	0:15:00	537.95	134.49	0.00	0.00	2,039.65	509.91
235	08.23 12:30:00	0:15:00	375.18	93.79	0.00	0.00	2,202.43	550.61
235	08.23 12:45:00	0:15:00	212.90	53.23	0.00	0.00	2,364.71	591.18
235	08.23 13:00:00	0:15:00	55.58	13.90	0.00	0.00	2,522.03	630.51
235	08.23 13:15:00	0:15:00	33.99	8.50	0.00	0.00	2,543.61	635.90
235	08.23 13:30:00	0:15:00	29.53	7.38	0.00	0.00	2,548.08	637.02
235	08.23 13:45:00	0:15:00	26.05	6.51	0.00	0.00	2,551.55	637.89
235	08.23 14:00:00	0:15:00	21.34	5.34	0.00	0.00	2,556.27	639.07
235	08.23 14:15:00	0:15:00	18.11	4.53	0.00	0.00	2,559.49	639.87
235	08.23 14:30:00	0:15:00	13.90	3.47	0.00	0.00	2,563.71	640.93
235	08.23 14:45:00	0:15:00	71.96	17.99	0.00	0.00	2,505.65	626.41
235	08.23 15:00:00	0:15:00	341.18	85.30	0.00	0.00	2,236.42	559.11
235	08.23 15:15:00	0:15:00	677.90	169.48	0.00	0.00	1,899.71	474.93
235	08.23 15:30:00	0:15:00	1,119.08	279.77	0.00	0.00	1,458.53	364.63
235	08.23 15:45:00	0:15:00	1,594.75	398.69	0.00	0.00	982.86	245.71
235	08.23 16:00:00	0:15:00	2,112.36	528.09	0.00	0.00	465.25	116.31
235	08.23 16:15:00	0:15:00	2,345.85	586.46	0.00	0.00	231.76	57.94
235	08.23 16:30:00	0:15:00	2,500.19	625.05	0.00	0.00	77.42	19.35
235	08.23 16:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 17:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 18:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 18:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
235	08.23 18:30:00	0:15:00	2,574.63	643.66	0.00	0.00	2.98	0.74
235	08.23 18:45:00	0:11:24	2,545.60	483.66	0.00	0.00	32.01	6.08
235	08.23 18:52:48	0:03:36	2,521.78	151.31	0.00	0.00	55.83	3.35
242	08.30 07:37:48	0:03:36	2,577.61	154.66	0.00	0.00	0.00	0.00
242	08.30 07:45:00	0:11:24	2,577.61	489.75	0.00	0.00	0.00	0.00
242	08.30 08:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 10:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 10:15:00	0:15:00	2,372.65	593.16	0.00	0.00	204.96	51.24

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
242	08.30 10:30:00	0:15:00	2,044.37	511.09	0.00	0.00	533.24	133.31
242	08.30 10:45:00	0:15:00	1,745.86	436.47	0.00	0.00	831.74	207.94
242	08.30 11:00:00	0:15:00	1,481.36	370.34	0.00	0.00	1,096.25	274.06
242	08.30 11:15:00	0:15:00	1,269.20	317.30	0.00	0.00	1,308.41	327.10
242	08.30 11:30:00	0:15:00	1,073.18	268.29	0.00	0.00	1,504.43	376.11
242	08.30 11:45:00	0:15:00	883.35	220.84	0.00	0.00	1,694.25	423.56
242	08.30 12:00:00	0:15:00	706.68	176.67	0.00	0.00	1,870.92	467.73
242	08.30 12:15:00	0:15:00	531.01	132.75	0.00	0.00	2,046.60	511.65
242	08.30 12:30:00	0:15:00	364.01	91.00	0.00	0.00	2,213.60	553.40
242	08.30 12:45:00	0:15:00	197.51	49.38	0.00	0.00	2,380.09	595.02
242	08.30 13:00:00	0:15:00	42.93	10.73	0.00	0.00	2,534.68	633.67
242	08.30 13:15:00	0:15:00	37.72	9.43	0.00	0.00	2,539.89	634.97
242	08.30 13:30:00	0:15:00	32.26	8.06	0.00	0.00	2,545.35	636.34
242	08.30 13:45:00	0:15:00	28.29	7.07	0.00	0.00	2,549.32	637.33
242	08.30 14:00:00	0:15:00	23.57	5.89	0.00	0.00	2,554.03	638.51
242	08.30 14:15:00	0:15:00	19.35	4.84	0.00	0.00	2,558.25	639.56
242	08.30 14:30:00	0:15:00	14.64	3.66	0.00	0.00	2,562.97	640.74
242	08.30 14:45:00	0:15:00	163.27	40.82	0.00	0.00	2,414.34	603.58
242	08.30 15:00:00	0:15:00	441.68	110.42	0.00	0.00	2,135.93	533.98
242	08.30 15:15:00	0:15:00	834.72	208.68	0.00	0.00	1,742.89	435.72
242	08.30 15:30:00	0:15:00	1,298.48	324.62	0.00	0.00	1,279.13	319.78
242	08.30 15:45:00	0:15:00	1,795.00	448.75	0.00	0.00	782.61	195.65
242	08.30 16:00:00	0:15:00	2,225.75	556.44	0.00	0.00	351.85	87.96
242	08.30 16:15:00	0:15:00	2,408.63	602.16	0.00	0.00	168.98	42.25
242	08.30 16:30:00	0:15:00	2,569.67	642.42	0.00	0.00	7.94	1.99
242	08.30 16:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 17:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 18:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 18:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
242	08.30 18:30:00	0:13:48	2,577.61	592.85	0.00	0.00	0.00	0.00
242	08.30 18:42:36	0:06:36	2,574.63	283.21	0.00	0.00	2.98	0.33
249	09.06 07:44:24	0:07:48	2,577.61	335.09	0.00	0.00	0.00	0.00
249	09.06 08:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 10:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 10:15:00	0:15:00	2,436.42	609.11	0.00	0.00	141.19	35.30
249	09.06 10:30:00	0:15:00	2,092.01	523.00	0.00	0.00	485.60	121.40
249	09.06 10:45:00	0:15:00	1,781.60	445.40	0.00	0.00	796.01	199.00
249	09.06 11:00:00	0:15:00	1,502.20	375.55	0.00	0.00	1,075.41	268.85
249	09.06 11:15:00	0:15:00	1,283.59	320.90	0.00	0.00	1,294.01	323.50
249	09.06 11:30:00	0:15:00	1,080.62	270.16	0.00	0.00	1,496.99	374.25
249	09.06 11:45:00	0:15:00	885.84	221.46	0.00	0.00	1,691.77	422.94
249	09.06 12:00:00	0:15:00	702.22	175.55	0.00	0.00	1,875.39	468.85

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
249	09.06 12:15:00	0:15:00	522.82	130.70	0.00	0.00	2,054.79	513.70
249	09.06 12:30:00	0:15:00	350.12	87.53	0.00	0.00	2,227.49	556.87
249	09.06 12:45:00	0:15:00	179.40	44.85	0.00	0.00	2,398.21	599.55
249	09.06 13:00:00	0:15:00	45.91	11.48	0.00	0.00	2,531.70	632.93
249	09.06 13:15:00	0:15:00	40.69	10.17	0.00	0.00	2,536.91	634.23
249	09.06 13:30:00	0:15:00	35.48	8.87	0.00	0.00	2,542.12	635.53
249	09.06 13:45:00	0:15:00	30.77	7.69	0.00	0.00	2,546.84	636.71
249	09.06 14:00:00	0:15:00	25.56	6.39	0.00	0.00	2,552.05	638.01
249	09.06 14:15:00	0:15:00	20.35	5.09	0.00	0.00	2,557.26	639.32
249	09.06 14:30:00	0:15:00	38.71	9.68	0.00	0.00	2,538.90	634.72
249	09.06 14:45:00	0:15:00	258.56	64.64	0.00	0.00	2,319.05	579.76
249	09.06 15:00:00	0:15:00	564.26	141.06	0.00	0.00	2,013.35	503.34
249	09.06 15:15:00	0:15:00	1,010.89	252.72	0.00	0.00	1,566.71	391.68
249	09.06 15:30:00	0:15:00	1,497.98	374.50	0.00	0.00	1,079.63	269.91
249	09.06 15:45:00	0:15:00	2,027.50	506.87	0.00	0.00	550.11	137.53
249	09.06 16:00:00	0:15:00	2,293.99	573.50	0.00	0.00	283.62	70.90
249	09.06 16:15:00	0:15:00	2,496.72	624.18	0.00	0.00	80.89	20.22
249	09.06 16:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 16:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 17:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 18:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
249	09.06 18:15:00	0:16:12	2,577.61	695.95	0.00	0.00	0.00	0.00
249	09.06 18:31:48	0:08:24	2,577.61	360.87	0.00	0.00	0.00	0.00
256	09.13 07:50:24	0:04:48	2,577.61	206.21	0.00	0.00	0.00	0.00
256	09.13 08:00:00	0:12:36	2,577.61	541.30	0.00	0.00	0.00	0.00
256	09.13 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 10:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 10:15:00	0:15:00	2,503.17	625.79	0.00	0.00	74.44	18.61
256	09.13 10:30:00	0:15:00	2,142.13	535.53	0.00	0.00	435.47	108.87
256	09.13 10:45:00	0:15:00	1,818.57	454.64	0.00	0.00	759.04	189.76
256	09.13 11:00:00	0:15:00	1,524.03	381.01	0.00	0.00	1,053.57	263.39
256	09.13 11:15:00	0:15:00	1,296.00	324.00	0.00	0.00	1,281.61	320.40
256	09.13 11:30:00	0:15:00	1,086.08	271.52	0.00	0.00	1,491.53	372.88
256	09.13 11:45:00	0:15:00	886.08	221.52	0.00	0.00	1,691.52	422.88
256	09.13 12:00:00	0:15:00	696.26	174.07	0.00	0.00	1,881.35	470.34
256	09.13 12:15:00	0:15:00	512.15	128.04	0.00	0.00	2,065.46	516.37
256	09.13 12:30:00	0:15:00	333.74	83.44	0.00	0.00	2,243.87	560.97
256	09.13 12:45:00	0:15:00	158.56	39.64	0.00	0.00	2,419.05	604.76
256	09.13 13:00:00	0:15:00	50.37	12.59	0.00	0.00	2,527.24	631.81
256	09.13 13:15:00	0:15:00	44.42	11.10	0.00	0.00	2,533.19	633.30
256	09.13 13:30:00	0:15:00	38.71	9.68	0.00	0.00	2,538.90	634.72
256	09.13 13:45:00	0:15:00	33.25	8.31	0.00	0.00	2,544.36	636.09
256	09.13 14:00:00	0:15:00	27.05	6.76	0.00	0.00	2,550.56	637.64

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
256	09.13 14:15:00	0:15:00	21.09	5.27	0.00	0.00	2,556.52	639.13
256	09.13 14:30:00	0:15:00	107.94	26.98	0.00	0.00	2,469.67	617.42
256	09.13 14:45:00	0:15:00	357.56	89.39	0.00	0.00	2,220.05	555.01
256	09.13 15:00:00	0:15:00	734.97	183.74	0.00	0.00	1,842.64	460.66
256	09.13 15:15:00	0:15:00	1,208.16	302.04	0.00	0.00	1,369.45	342.36
256	09.13 15:30:00	0:15:00	1,724.28	431.07	0.00	0.00	853.33	213.33
256	09.13 15:45:00	0:15:00	2,153.55	538.39	0.00	0.00	424.06	106.02
256	09.13 16:00:00	0:15:00	2,386.30	596.57	0.00	0.00	191.31	47.83
256	09.13 16:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 16:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 16:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 17:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 18:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
256	09.13 18:15:00	0:10:48	2,577.61	463.97	0.00	0.00	0.00	0.00
256	09.13 18:21:00	0:03:00	2,577.61	128.88	0.00	0.00	0.00	0.00
263	09.20 07:57:00	0:01:12	2,577.61	51.55	0.00	0.00	0.00	0.00
263	09.20 08:00:00	0:09:00	2,577.61	386.64	0.00	0.00	0.00	0.00
263	09.20 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 10:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 10:15:00	0:15:00	2,572.89	643.22	0.00	0.00	4.72	1.18
263	09.20 10:30:00	0:15:00	2,200.94	550.24	0.00	0.00	376.67	94.17
263	09.20 10:45:00	0:15:00	1,861.25	465.31	0.00	0.00	716.36	179.09
263	09.20 11:00:00	0:15:00	1,551.33	387.83	0.00	0.00	1,026.28	256.57
263	09.20 11:15:00	0:15:00	1,309.40	327.35	0.00	0.00	1,268.21	317.05
263	09.20 11:30:00	0:15:00	1,092.03	273.01	0.00	0.00	1,485.57	371.39
263	09.20 11:45:00	0:15:00	885.09	221.27	0.00	0.00	1,692.52	423.13
263	09.20 12:00:00	0:15:00	689.81	172.45	0.00	0.00	1,887.80	471.95
263	09.20 12:15:00	0:15:00	499.99	125.00	0.00	0.00	2,077.62	519.41
263	09.20 12:30:00	0:15:00	316.62	79.15	0.00	0.00	2,260.99	565.25
263	09.20 12:45:00	0:15:00	135.98	33.99	0.00	0.00	2,441.63	610.41
263	09.20 13:00:00	0:15:00	54.84	13.71	0.00	0.00	2,522.77	630.69
263	09.20 13:15:00	0:15:00	48.39	12.10	0.00	0.00	2,529.22	632.31
263	09.20 13:30:00	0:15:00	41.44	10.36	0.00	0.00	2,536.17	634.04
263	09.20 13:45:00	0:15:00	35.24	8.81	0.00	0.00	2,542.37	635.59
263	09.20 14:00:00	0:15:00	28.29	7.07	0.00	0.00	2,549.32	637.33
263	09.20 14:15:00	0:15:00	22.83	5.71	0.00	0.00	2,554.78	638.70
263	09.20 14:30:00	0:15:00	189.57	47.39	0.00	0.00	2,388.03	597.01
263	09.20 14:45:00	0:15:00	467.24	116.81	0.00	0.00	2,110.37	527.59
263	09.20 15:00:00	0:15:00	926.03	231.51	0.00	0.00	1,651.57	412.89
263	09.20 15:15:00	0:15:00	1,424.53	356.13	0.00	0.00	1,153.08	288.27
263	09.20 15:30:00	0:15:00	1,969.18	492.30	0.00	0.00	608.42	152.11
263	09.20 15:45:00	0:15:00	2,259.00	564.75	0.00	0.00	318.60	79.65
263	09.20 16:00:00	0:15:00	2,514.58	628.65	0.00	0.00	63.03	15.76

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
263	09.20 16:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 16:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 16:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 17:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
263	09.20 18:00:00	0:12:36	2,577.61	541.30	0.00	0.00	0.00	0.00
263	09.20 18:09:36	0:04:48	2,577.61	206.21	0.00	0.00	0.00	0.00
270	09.27 08:03:00	0:06:00	2,577.61	257.76	0.00	0.00	0.00	0.00
270	09.27 08:15:00	0:13:12	2,577.61	567.07	0.00	0.00	0.00	0.00
270	09.27 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 10:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 10:15:00	0:15:00	2,576.61	644.15	0.00	0.00	0.99	0.25
270	09.27 10:30:00	0:15:00	2,259.25	564.81	0.00	0.00	318.36	79.59
270	09.27 10:45:00	0:15:00	1,906.16	476.54	0.00	0.00	671.45	167.86
270	09.27 11:00:00	0:15:00	1,579.12	394.78	0.00	0.00	998.49	249.62
270	09.27 11:15:00	0:15:00	1,325.03	331.26	0.00	0.00	1,252.58	313.14
270	09.27 11:30:00	0:15:00	1,098.24	274.56	0.00	0.00	1,479.37	369.84
270	09.27 11:45:00	0:15:00	885.09	221.27	0.00	0.00	1,692.52	423.13
270	09.27 12:00:00	0:15:00	683.86	170.96	0.00	0.00	1,893.75	473.44
270	09.27 12:15:00	0:15:00	486.59	121.65	0.00	0.00	2,091.02	522.75
270	09.27 12:30:00	0:15:00	297.02	74.25	0.00	0.00	2,280.59	570.15
270	09.27 12:45:00	0:15:00	106.20	26.55	0.00	0.00	2,471.41	617.85
270	09.27 13:00:00	0:15:00	58.06	14.52	0.00	0.00	2,519.54	629.89
270	09.27 13:15:00	0:15:00	52.36	13.09	0.00	0.00	2,525.25	631.31
270	09.27 13:30:00	0:15:00	44.42	11.10	0.00	0.00	2,533.19	633.30
270	09.27 13:45:00	0:15:00	37.22	9.31	0.00	0.00	2,540.39	635.10
270	09.27 14:00:00	0:15:00	29.28	7.32	0.00	0.00	2,548.33	637.08
270	09.27 14:15:00	0:15:00	58.56	14.64	0.00	0.00	2,519.05	629.76
270	09.27 14:30:00	0:15:00	273.44	68.36	0.00	0.00	2,304.16	576.04
270	09.27 14:45:00	0:15:00	647.63	161.91	0.00	0.00	1,929.98	482.50
270	09.27 15:00:00	0:15:00	1,135.46	283.86	0.00	0.00	1,442.15	360.54
270	09.27 15:15:00	0:15:00	1,667.95	416.99	0.00	0.00	909.66	227.41
270	09.27 15:30:00	0:15:00	2,111.61	527.90	0.00	0.00	465.99	116.50
270	09.27 15:45:00	0:15:00	2,407.39	601.85	0.00	0.00	170.22	42.56
270	09.27 16:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 16:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 16:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 16:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 17:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
270	09.27 17:45:00	0:13:48	2,577.61	592.85	0.00	0.00	0.00	0.00
270	09.27 17:58:11	0:06:36	2,577.61	283.54	0.00	0.00	0.00	0.00
277	10.04 08:09:36	0:02:24	2,577.61	103.10	0.00	0.00	0.00	0.00
277	10.04 08:15:00	0:10:12	2,577.61	438.19	0.00	0.00	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
277	10.04 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 10:00:00	0:15:00	2,577.36	644.34	0.00	0.00	0.25	0.06
277	10.04 10:15:00	0:15:00	2,569.92	642.48	0.00	0.00	7.69	1.92
277	10.04 10:30:00	0:15:00	2,320.79	580.20	0.00	0.00	256.82	64.20
277	10.04 10:45:00	0:15:00	1,949.09	487.27	0.00	0.00	628.52	157.13
277	10.04 11:00:00	0:15:00	1,613.11	403.28	0.00	0.00	964.49	241.12
277	10.04 11:15:00	0:15:00	1,343.14	335.79	0.00	0.00	1,234.46	308.62
277	10.04 11:30:00	0:15:00	1,106.43	276.61	0.00	0.00	1,471.18	367.80
277	10.04 11:45:00	0:15:00	886.58	221.65	0.00	0.00	1,691.03	422.76
277	10.04 12:00:00	0:15:00	677.65	169.41	0.00	0.00	1,899.96	474.99
277	10.04 12:15:00	0:15:00	475.67	118.92	0.00	0.00	2,101.94	525.48
277	10.04 12:30:00	0:15:00	280.14	70.04	0.00	0.00	2,297.46	574.37
277	10.04 12:45:00	0:15:00	97.52	24.38	0.00	0.00	2,480.09	620.02
277	10.04 13:00:00	0:15:00	64.02	16.01	0.00	0.00	2,513.59	628.40
277	10.04 13:15:00	0:15:00	57.07	14.27	0.00	0.00	2,520.54	630.13
277	10.04 13:30:00	0:15:00	47.89	11.97	0.00	0.00	2,529.72	632.43
277	10.04 13:45:00	0:15:00	38.96	9.74	0.00	0.00	2,538.65	634.66
277	10.04 14:00:00	0:15:00	30.02	7.51	0.00	0.00	2,547.58	636.90
277	10.04 14:15:00	0:15:00	129.28	32.32	0.00	0.00	2,448.33	612.08
277	10.04 14:30:00	0:15:00	378.16	94.54	0.00	0.00	2,199.45	549.86
277	10.04 14:45:00	0:15:00	836.71	209.18	0.00	0.00	1,740.90	435.23
277	10.04 15:00:00	0:15:00	1,352.33	338.08	0.00	0.00	1,225.28	306.32
277	10.04 15:15:00	0:15:00	1,909.14	477.28	0.00	0.00	668.47	167.12
277	10.04 15:30:00	0:15:00	2,250.07	562.52	0.00	0.00	327.54	81.88
277	10.04 15:45:00	0:15:00	2,558.75	639.69	0.00	0.00	18.86	4.72
277	10.04 16:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 16:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 16:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 16:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
277	10.04 17:30:00	0:16:12	2,577.61	695.95	0.00	0.00	0.00	0.00
277	10.04 17:47:23	0:08:24	2,577.61	360.87	0.00	0.00	0.00	0.00
284	10.11 08:16:11	0:07:12	2,577.61	309.31	0.00	0.00	0.00	0.00
284	10.11 08:30:00	0:14:24	2,577.61	618.63	0.00	0.00	0.00	0.00
284	10.11 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 10:00:00	0:15:00	2,574.63	643.66	0.00	0.00	2.98	0.74
284	10.11 10:15:00	0:15:00	2,561.48	640.37	0.00	0.00	16.13	4.03
284	10.11 10:30:00	0:15:00	2,384.56	596.14	0.00	0.00	193.05	48.26
284	10.11 10:45:00	0:15:00	2,002.19	500.55	0.00	0.00	575.42	143.86
284	10.11 11:00:00	0:15:00	1,653.56	413.39	0.00	0.00	924.05	231.01
284	10.11 11:15:00	0:15:00	1,366.47	341.62	0.00	0.00	1,211.14	302.78
284	10.11 11:30:00	0:15:00	1,120.32	280.08	0.00	0.00	1,457.29	364.32

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
284	10.11 11:45:00	0:15:00	892.78	223.20	0.00	0.00	1,684.82	421.21
284	10.11 12:00:00	0:15:00	677.65	169.41	0.00	0.00	1,899.96	474.99
284	10.11 12:15:00	0:15:00	468.48	117.12	0.00	0.00	2,109.13	527.28
284	10.11 12:30:00	0:15:00	265.25	66.31	0.00	0.00	2,312.35	578.09
284	10.11 12:45:00	0:15:00	82.38	20.60	0.00	0.00	2,495.23	623.81
284	10.11 13:00:00	0:15:00	70.72	17.68	0.00	0.00	2,506.89	626.72
284	10.11 13:15:00	0:15:00	60.79	15.20	0.00	0.00	2,516.81	629.20
284	10.11 13:30:00	0:15:00	51.12	12.78	0.00	0.00	2,526.49	631.62
284	10.11 13:45:00	0:15:00	40.69	10.17	0.00	0.00	2,536.91	634.23
284	10.11 14:00:00	0:15:00	34.24	8.56	0.00	0.00	2,543.36	635.84
284	10.11 14:15:00	0:15:00	183.87	45.97	0.00	0.00	2,393.74	598.44
284	10.11 14:30:00	0:15:00	517.11	129.28	0.00	0.00	2,060.50	515.12
284	10.11 14:45:00	0:15:00	1,019.83	254.96	0.00	0.00	1,557.78	389.45
284	10.11 15:00:00	0:15:00	1,567.21	391.80	0.00	0.00	1,010.40	252.60
284	10.11 15:15:00	0:15:00	2,052.31	513.08	0.00	0.00	525.30	131.32
284	10.11 15:30:00	0:15:00	2,428.23	607.06	0.00	0.00	149.38	37.34
284	10.11 15:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 16:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 16:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 16:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 16:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 17:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
284	10.11 17:30:00	0:11:24	2,577.61	489.75	0.00	0.00	0.00	0.00
284	10.11 17:37:12	0:03:36	2,577.61	154.66	0.00	0.00	0.00	0.00
291	10.18 08:22:48	0:03:36	2,577.61	154.66	0.00	0.00	0.00	0.00
291	10.18 08:30:00	0:10:48	2,577.61	463.97	0.00	0.00	0.00	0.00
291	10.18 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 09:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 10:00:00	0:15:00	2,575.37	643.84	0.00	0.00	2.23	0.56
291	10.18 10:15:00	0:15:00	2,555.52	638.88	0.00	0.00	22.08	5.52
291	10.18 10:30:00	0:15:00	2,457.26	614.32	0.00	0.00	120.35	30.09
291	10.18 10:45:00	0:15:00	2,061.24	515.31	0.00	0.00	516.37	129.09
291	10.18 11:00:00	0:15:00	1,698.47	424.62	0.00	0.00	879.14	219.78
291	10.18 11:15:00	0:15:00	1,396.00	349.00	0.00	0.00	1,181.61	295.40
291	10.18 11:30:00	0:15:00	1,139.92	284.98	0.00	0.00	1,437.68	359.42
291	10.18 11:45:00	0:15:00	903.20	225.80	0.00	0.00	1,674.40	418.60
291	10.18 12:00:00	0:15:00	679.89	169.97	0.00	0.00	1,897.72	474.43
291	10.18 12:15:00	0:15:00	463.76	115.94	0.00	0.00	2,113.85	528.46
291	10.18 12:30:00	0:15:00	253.84	63.46	0.00	0.00	2,323.77	580.94
291	10.18 12:45:00	0:15:00	88.34	22.08	0.00	0.00	2,489.27	622.32
291	10.18 13:00:00	0:15:00	75.18	18.80	0.00	0.00	2,502.42	625.61
291	10.18 13:15:00	0:15:00	64.27	16.07	0.00	0.00	2,513.34	628.34
291	10.18 13:30:00	0:15:00	53.10	13.28	0.00	0.00	2,524.51	631.13
291	10.18 13:45:00	0:15:00	41.69	10.42	0.00	0.00	2,535.92	633.98
291	10.18 14:00:00	0:15:00	66.50	16.63	0.00	0.00	2,511.11	627.78
291	10.18 14:15:00	0:15:00	252.35	63.09	0.00	0.00	2,325.26	581.31
291	10.18 14:30:00	0:15:00	687.83	171.96	0.00	0.00	1,889.78	472.45
291	10.18 14:45:00	0:15:00	1,219.82	304.96	0.00	0.00	1,357.78	339.45

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
291	10.18 15:00:00	0:15:00	1,790.53	447.63	0.00	0.00	787.08	196.77
291	10.18 15:15:00	0:15:00	2,226.75	556.69	0.00	0.00	350.86	87.72
291	10.18 15:30:00	0:15:00	2,576.12	644.03	0.00	0.00	1.49	0.37
291	10.18 15:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 16:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 16:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 16:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 16:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 17:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
291	10.18 17:15:00	0:13:12	2,577.61	567.07	0.00	0.00	0.00	0.00
291	10.18 17:27:00	0:06:00	2,577.61	257.76	0.00	0.00	0.00	0.00
298	10.25 07:30:00	0:07:48	2,577.61	335.09	0.00	0.00	0.00	0.00
298	10.25 07:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 08:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 09:15:00	0:15:00	2,553.04	638.26	0.00	0.00	24.57	6.14
298	10.25 09:30:00	0:15:00	2,517.31	629.33	0.00	0.00	60.30	15.07
298	10.25 09:45:00	0:15:00	2,132.46	533.11	0.00	0.00	445.15	111.29
298	10.25 10:00:00	0:15:00	1,758.02	439.51	0.00	0.00	819.58	204.90
298	10.25 10:15:00	0:15:00	1,435.45	358.86	0.00	0.00	1,142.16	285.54
298	10.25 10:30:00	0:15:00	1,167.47	291.87	0.00	0.00	1,410.14	352.54
298	10.25 10:45:00	0:15:00	922.31	230.58	0.00	0.00	1,655.30	413.82
298	10.25 11:00:00	0:15:00	688.82	172.20	0.00	0.00	1,888.79	472.20
298	10.25 11:15:00	0:15:00	465.75	116.44	0.00	0.00	2,111.86	527.97
298	10.25 11:30:00	0:15:00	248.38	62.10	0.00	0.00	2,329.23	582.31
298	10.25 11:45:00	0:15:00	94.29	23.57	0.00	0.00	2,483.32	620.83
298	10.25 12:00:00	0:15:00	79.90	19.98	0.00	0.00	2,497.71	624.43
298	10.25 12:15:00	0:15:00	67.74	16.94	0.00	0.00	2,509.87	627.47
298	10.25 12:30:00	0:15:00	55.09	13.77	0.00	0.00	2,522.52	630.63
298	10.25 12:45:00	0:15:00	42.43	10.61	0.00	0.00	2,535.18	633.79
298	10.25 13:00:00	0:15:00	100.25	25.06	0.00	0.00	2,477.36	619.34
298	10.25 13:15:00	0:15:00	333.74	83.44	0.00	0.00	2,243.87	560.97
298	10.25 13:30:00	0:15:00	837.70	209.42	0.00	0.00	1,739.91	434.98
298	10.25 13:45:00	0:15:00	1,392.28	348.07	0.00	0.00	1,185.33	296.33
298	10.25 14:00:00	0:15:00	1,937.42	484.36	0.00	0.00	640.18	160.05
298	10.25 14:15:00	0:15:00	2,416.82	604.20	0.00	0.00	160.79	40.20
298	10.25 14:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 14:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 15:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 15:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 15:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 15:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 16:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
298	10.25 16:15:00	0:09:00	2,577.61	386.64	0.00	0.00	0.00	0.00
298	10.25 16:18:00	0:01:48	2,577.61	77.33	0.00	0.00	0.00	0.00
305	11.01 07:36:35	0:04:12	2,577.61	180.43	0.00	0.00	0.00	0.00
305	11.01 07:45:00	0:11:24	2,577.61	489.75	0.00	0.00	0.00	0.00
305	11.01 08:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
305	11.01 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 09:15:00	0:15:00	2,557.01	639.25	0.00	0.00	20.60	5.15
305	11.01 09:30:00	0:15:00	2,513.84	628.46	0.00	0.00	63.77	15.94
305	11.01 09:45:00	0:15:00	2,219.30	554.83	0.00	0.00	358.30	89.58
305	11.01 10:00:00	0:15:00	1,828.25	457.06	0.00	0.00	749.36	187.34
305	11.01 10:15:00	0:15:00	1,484.33	371.08	0.00	0.00	1,093.27	273.32
305	11.01 10:30:00	0:15:00	1,204.44	301.11	0.00	0.00	1,373.17	343.29
305	11.01 10:45:00	0:15:00	948.37	237.09	0.00	0.00	1,629.24	407.31
305	11.01 11:00:00	0:15:00	706.68	176.67	0.00	0.00	1,870.92	467.73
305	11.01 11:15:00	0:15:00	475.92	118.98	0.00	0.00	2,101.69	525.42
305	11.01 11:30:00	0:15:00	250.86	62.72	0.00	0.00	2,326.74	581.69
305	11.01 11:45:00	0:15:00	100.99	25.25	0.00	0.00	2,476.62	619.15
305	11.01 12:00:00	0:15:00	85.61	21.40	0.00	0.00	2,492.00	623.00
305	11.01 12:15:00	0:15:00	71.71	17.93	0.00	0.00	2,505.90	626.47
305	11.01 12:30:00	0:15:00	57.32	14.33	0.00	0.00	2,520.29	630.07
305	11.01 12:45:00	0:15:00	43.42	10.86	0.00	0.00	2,534.18	633.55
305	11.01 13:00:00	0:15:00	112.16	28.04	0.00	0.00	2,465.45	616.36
305	11.01 13:15:00	0:15:00	434.23	108.56	0.00	0.00	2,143.37	535.84
305	11.01 13:30:00	0:15:00	963.25	240.81	0.00	0.00	1,614.35	403.59
305	11.01 13:45:00	0:15:00	1,543.64	385.91	0.00	0.00	1,033.97	258.49
305	11.01 14:00:00	0:15:00	2,087.05	521.76	0.00	0.00	490.56	122.64
305	11.01 14:15:00	0:15:00	2,557.51	639.38	0.00	0.00	20.10	5.03
305	11.01 14:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 14:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 15:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 15:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 15:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 15:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
305	11.01 16:00:00	0:12:36	2,577.61	541.30	0.00	0.00	0.00	0.00
305	11.01 16:10:12	0:05:24	2,577.61	231.99	0.00	0.00	0.00	0.00
312	11.08 07:43:48	0:00:36	2,577.61	25.78	0.00	0.00	0.00	0.00
312	11.08 07:45:00	0:07:48	2,577.61	335.09	0.00	0.00	0.00	0.00
312	11.08 08:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 09:15:00	0:15:00	2,566.69	641.67	0.00	0.00	10.92	2.73
312	11.08 09:30:00	0:15:00	2,516.07	629.02	0.00	0.00	61.54	15.38
312	11.08 09:45:00	0:15:00	2,320.79	580.20	0.00	0.00	256.82	64.20
312	11.08 10:00:00	0:15:00	1,910.38	477.59	0.00	0.00	667.23	166.81
312	11.08 10:15:00	0:15:00	1,546.37	386.59	0.00	0.00	1,031.24	257.81
312	11.08 10:30:00	0:15:00	1,253.32	313.33	0.00	0.00	1,324.29	331.07
312	11.08 10:45:00	0:15:00	987.32	246.83	0.00	0.00	1,590.29	397.57
312	11.08 11:00:00	0:15:00	736.21	184.05	0.00	0.00	1,841.40	460.35
312	11.08 11:15:00	0:15:00	496.51	124.13	0.00	0.00	2,081.09	520.27
312	11.08 11:30:00	0:15:00	263.02	65.76	0.00	0.00	2,314.59	578.65
312	11.08 11:45:00	0:15:00	108.93	27.23	0.00	0.00	2,468.68	617.17
312	11.08 12:00:00	0:15:00	91.81	22.95	0.00	0.00	2,485.80	621.45
312	11.08 12:15:00	0:15:00	76.18	19.04	0.00	0.00	2,501.43	625.36

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
312	11.08 12:30:00	0:15:00	60.05	15.01	0.00	0.00	2,517.56	629.39
312	11.08 12:45:00	0:15:00	47.89	11.97	0.00	0.00	2,529.72	632.43
312	11.08 13:00:00	0:15:00	123.82	30.96	0.00	0.00	2,453.79	613.45
312	11.08 13:15:00	0:15:00	516.86	129.22	0.00	0.00	2,060.75	515.19
312	11.08 13:30:00	0:15:00	1,056.05	264.01	0.00	0.00	1,521.55	380.39
312	11.08 13:45:00	0:15:00	1,653.56	413.39	0.00	0.00	924.05	231.01
312	11.08 14:00:00	0:15:00	2,237.91	559.48	0.00	0.00	339.69	84.92
312	11.08 14:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 14:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 14:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 15:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 15:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 15:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 15:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
312	11.08 16:00:00	0:09:00	2,577.61	386.64	0.00	0.00	0.00	0.00
312	11.08 16:03:00	0:01:48	2,577.61	77.33	0.00	0.00	0.00	0.00
319	11.15 07:51:00	0:04:48	2,577.61	206.21	0.00	0.00	0.00	0.00
319	11.15 08:00:00	0:12:00	2,577.61	515.52	0.00	0.00	0.00	0.00
319	11.15 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 09:30:00	0:15:00	2,525.00	631.25	0.00	0.00	52.60	13.15
319	11.15 09:45:00	0:15:00	2,430.22	607.55	0.00	0.00	147.39	36.85
319	11.15 10:00:00	0:15:00	2,010.62	502.66	0.00	0.00	566.98	141.75
319	11.15 10:15:00	0:15:00	1,626.51	406.63	0.00	0.00	951.09	237.77
319	11.15 10:30:00	0:15:00	1,312.38	328.09	0.00	0.00	1,265.23	316.31
319	11.15 10:45:00	0:15:00	1,035.71	258.93	0.00	0.00	1,541.90	385.48
319	11.15 11:00:00	0:15:00	775.91	193.98	0.00	0.00	1,801.69	450.42
319	11.15 11:15:00	0:15:00	525.55	131.39	0.00	0.00	2,052.06	513.02
319	11.15 11:30:00	0:15:00	285.11	71.28	0.00	0.00	2,292.50	573.13
319	11.15 11:45:00	0:15:00	117.37	29.34	0.00	0.00	2,460.24	615.06
319	11.15 12:00:00	0:15:00	98.76	24.69	0.00	0.00	2,478.85	619.71
319	11.15 12:15:00	0:15:00	81.14	20.29	0.00	0.00	2,496.47	624.12
319	11.15 12:30:00	0:15:00	63.52	15.88	0.00	0.00	2,514.09	628.52
319	11.15 12:45:00	0:15:00	48.63	12.16	0.00	0.00	2,528.97	632.24
319	11.15 13:00:00	0:15:00	125.31	31.33	0.00	0.00	2,452.30	613.08
319	11.15 13:15:00	0:15:00	565.50	141.37	0.00	0.00	2,012.11	503.03
319	11.15 13:30:00	0:15:00	1,122.80	280.70	0.00	0.00	1,454.80	363.70
319	11.15 13:45:00	0:15:00	1,740.41	435.10	0.00	0.00	837.20	209.30
319	11.15 14:00:00	0:15:00	2,368.18	592.05	0.00	0.00	209.42	52.36
319	11.15 14:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 14:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 14:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 15:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 15:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 15:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
319	11.15 15:45:00	0:13:48	2,577.61	592.85	0.00	0.00	0.00	0.00
319	11.15 15:57:36	0:06:36	2,577.61	283.54	0.00	0.00	0.00	0.00
326	11.22 07:57:36	0:01:12	2,577.61	51.55	0.00	0.00	0.00	0.00
326	11.22 08:00:00	0:09:00	2,577.61	386.64	0.00	0.00	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
326	11.22 08:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 09:30:00	0:15:00	2,541.88	635.47	0.00	0.00	35.73	8.93
326	11.22 09:45:00	0:15:00	2,467.93	616.98	0.00	0.00	109.68	27.42
326	11.22 10:00:00	0:15:00	2,119.80	529.95	0.00	0.00	457.81	114.45
326	11.22 10:15:00	0:15:00	1,724.53	431.13	0.00	0.00	853.08	213.27
326	11.22 10:30:00	0:15:00	1,384.83	346.21	0.00	0.00	1,192.78	298.19
326	11.22 10:45:00	0:15:00	1,095.51	273.88	0.00	0.00	1,482.10	370.53
326	11.22 11:00:00	0:15:00	824.05	206.01	0.00	0.00	1,753.56	438.39
326	11.22 11:15:00	0:15:00	566.24	141.56	0.00	0.00	2,011.37	502.84
326	11.22 11:30:00	0:15:00	319.10	79.78	0.00	0.00	2,258.51	564.63
326	11.22 11:45:00	0:15:00	127.54	31.89	0.00	0.00	2,450.07	612.52
326	11.22 12:00:00	0:15:00	106.20	26.55	0.00	0.00	2,471.41	617.85
326	11.22 12:15:00	0:15:00	87.10	21.77	0.00	0.00	2,490.51	622.63
326	11.22 12:30:00	0:15:00	67.74	16.94	0.00	0.00	2,509.87	627.47
326	11.22 12:45:00	0:15:00	49.63	12.41	0.00	0.00	2,527.98	632.00
326	11.22 13:00:00	0:15:00	116.13	29.03	0.00	0.00	2,461.48	615.37
326	11.22 13:15:00	0:15:00	586.84	146.71	0.00	0.00	1,990.77	497.69
326	11.22 13:30:00	0:15:00	1,157.54	289.39	0.00	0.00	1,420.07	355.02
326	11.22 13:45:00	0:15:00	1,794.00	448.50	0.00	0.00	783.60	195.90
326	11.22 14:00:00	0:15:00	2,458.26	614.56	0.00	0.00	119.35	29.84
326	11.22 14:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 14:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 14:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 15:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 15:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 15:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
326	11.22 15:45:00	0:12:00	2,577.61	515.52	0.00	0.00	0.00	0.00
326	11.22 15:54:00	0:04:48	2,577.61	206.21	0.00	0.00	0.00	0.00
333	11.29 08:04:12	0:05:24	2,577.61	231.99	0.00	0.00	0.00	0.00
333	11.29 08:15:00	0:12:36	2,577.61	541.30	0.00	0.00	0.00	0.00
333	11.29 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 09:30:00	0:15:00	2,563.22	640.80	0.00	0.00	14.39	3.60
333	11.29 09:45:00	0:15:00	2,484.56	621.14	0.00	0.00	93.05	23.26
333	11.29 10:00:00	0:15:00	2,238.66	559.66	0.00	0.00	338.95	84.74
333	11.29 10:15:00	0:15:00	1,828.49	457.12	0.00	0.00	749.11	187.28
333	11.29 10:30:00	0:15:00	1,464.98	366.24	0.00	0.00	1,112.63	278.16
333	11.29 10:45:00	0:15:00	1,164.99	291.25	0.00	0.00	1,412.62	353.16
333	11.29 11:00:00	0:15:00	882.61	220.65	0.00	0.00	1,695.00	423.75
333	11.29 11:15:00	0:15:00	618.10	154.53	0.00	0.00	1,959.51	489.88
333	11.29 11:30:00	0:15:00	363.02	90.76	0.00	0.00	2,214.59	553.65
333	11.29 11:45:00	0:15:00	141.44	35.36	0.00	0.00	2,436.17	609.04
333	11.29 12:00:00	0:15:00	113.89	28.47	0.00	0.00	2,463.71	615.93
333	11.29 12:15:00	0:15:00	95.04	23.76	47.89	11.97	2,434.68	608.67
333	11.29 12:30:00	0:15:00	72.46	18.11	119.60	29.90	2,385.55	596.39
333	11.29 12:45:00	0:15:00	52.85	13.21	160.54	40.14	2,364.21	591.05

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
333	11.29 13:00:00	0:15:00	101.49	25.37	83.87	20.97	2,392.25	598.06
333	11.29 13:15:00	0:15:00	578.65	144.66	0.00	0.00	1,998.96	499.74
333	11.29 13:30:00	0:15:00	1,162.75	290.69	12.90	3.23	1,401.95	350.49
333	11.29 13:45:00	0:15:00	1,814.35	453.59	35.48	8.87	727.77	181.94
333	11.29 14:00:00	0:15:00	2,493.24	623.31	0.00	0.00	84.37	21.09
333	11.29 14:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 14:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 14:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 15:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 15:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 15:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
333	11.29 15:45:00	0:10:48	2,577.61	463.97	0.00	0.00	0.00	0.00
333	11.29 15:51:36	0:03:00	2,577.61	128.88	0.00	0.00	0.00	0.00
340	12.06 08:10:12	0:02:24	2,577.61	103.10	0.00	0.00	0.00	0.00
340	12.06 08:15:00	0:10:12	2,577.61	438.19	0.00	0.00	0.00	0.00
340	12.06 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 09:45:00	0:15:00	2,506.64	626.66	0.00	0.00	70.97	17.74
340	12.06 10:00:00	0:15:00	2,361.48	590.37	0.00	0.00	216.12	54.03
340	12.06 10:15:00	0:15:00	1,940.15	485.04	0.00	0.00	637.45	159.36
340	12.06 10:30:00	0:15:00	1,550.83	387.71	0.00	0.00	1,026.78	256.69
340	12.06 10:45:00	0:15:00	1,240.42	310.10	0.00	0.00	1,337.19	334.30
340	12.06 11:00:00	0:15:00	948.61	237.15	0.00	0.00	1,628.99	407.25
340	12.06 11:15:00	0:15:00	677.40	169.35	0.00	0.00	1,900.20	475.05
340	12.06 11:30:00	0:15:00	415.87	103.97	0.00	0.00	2,161.74	540.43
340	12.06 11:45:00	0:15:00	158.31	39.58	0.00	0.00	2,419.30	604.82
340	12.06 12:00:00	0:15:00	117.12	29.28	0.00	0.00	2,460.49	615.12
340	12.06 12:15:00	0:15:00	99.25	24.81	94.29	23.57	2,384.06	596.02
340	12.06 12:30:00	0:15:00	77.91	19.48	251.86	62.96	2,247.84	561.96
340	12.06 12:45:00	0:15:00	56.57	14.14	320.09	80.02	2,200.94	550.24
340	12.06 13:00:00	0:15:00	75.18	18.80	206.45	51.61	2,295.98	573.99
340	12.06 13:15:00	0:15:00	535.47	133.87	75.93	18.98	1,966.21	491.55
340	12.06 13:30:00	0:15:00	1,123.05	280.76	104.71	26.18	1,349.84	337.46
340	12.06 13:45:00	0:15:00	1,785.32	446.33	96.77	24.19	695.52	173.88
340	12.06 14:00:00	0:15:00	2,483.56	620.89	0.00	0.00	94.04	23.51
340	12.06 14:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 14:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 14:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 15:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 15:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 15:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
340	12.06 15:45:00	0:10:12	2,577.61	438.19	0.00	0.00	0.00	0.00
340	12.06 15:51:00	0:03:00	2,577.61	128.88	0.00	0.00	0.00	0.00
347	12.13 08:15:36	0:07:12	2,577.61	309.31	0.00	0.00	0.00	0.00
347	12.13 08:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
347	12.13 09:45:00	0:15:00	2,530.96	632.74	0.00	0.00	46.65	11.66
347	12.13 10:00:00	0:15:00	2,434.93	608.73	0.00	0.00	142.68	35.67
347	12.13 10:15:00	0:15:00	2,054.79	513.70	0.00	0.00	522.82	130.70
347	12.13 10:30:00	0:15:00	1,649.59	412.40	0.00	0.00	928.02	232.00
347	12.13 10:45:00	0:15:00	1,319.32	329.83	0.00	0.00	1,258.28	314.57
347	12.13 11:00:00	0:15:00	1,020.32	255.08	0.00	0.00	1,557.28	389.32
347	12.13 11:15:00	0:15:00	742.41	185.60	0.00	0.00	1,835.19	458.80
347	12.13 11:30:00	0:15:00	474.93	118.73	0.00	0.00	2,102.68	525.67
347	12.13 11:45:00	0:15:00	219.10	54.78	0.00	0.00	2,358.51	589.63
347	12.13 12:00:00	0:15:00	128.78	32.20	0.00	0.00	2,448.83	612.21
347	12.13 12:15:00	0:15:00	106.45	26.61	79.90	19.98	2,391.26	597.82
347	12.13 12:30:00	0:15:00	83.37	20.84	297.51	74.38	2,196.72	549.18
347	12.13 12:45:00	0:15:00	60.79	15.20	424.31	106.08	2,092.51	523.13
347	12.13 13:00:00	0:15:00	54.59	13.65	321.83	80.46	2,201.19	550.30
347	12.13 13:15:00	0:15:00	452.60	113.15	192.55	48.14	1,932.46	483.12
347	12.13 13:30:00	0:15:00	1,043.15	260.79	178.16	44.54	1,356.30	339.07
347	12.13 13:45:00	0:15:00	1,704.43	426.11	143.42	35.86	729.76	182.44
347	12.13 14:00:00	0:15:00	2,409.37	602.34	6.45	1.61	161.78	40.45
347	12.13 14:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 14:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 14:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 15:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 15:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 15:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
347	12.13 15:45:00	0:10:48	2,577.61	463.97	0.00	0.00	0.00	0.00
347	12.13 15:52:11	0:03:36	2,577.61	154.66	0.00	0.00	0.00	0.00
354	12.20 08:19:48	0:04:48	2,577.61	206.21	0.00	0.00	0.00	0.00
354	12.20 08:30:00	0:12:36	2,577.61	541.30	0.00	0.00	0.00	0.00
354	12.20 08:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
354	12.20 09:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
354	12.20 09:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
354	12.20 09:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
354	12.20 09:45:00	0:15:00	2,553.79	638.45	0.00	0.00	23.82	5.96
354	12.20 10:00:00	0:15:00	2,458.75	614.69	0.00	0.00	118.86	29.71
354	12.20 10:15:00	0:15:00	2,161.24	540.31	0.00	0.00	416.37	104.09
354	12.20 10:30:00	0:15:00	1,745.86	436.47	0.00	0.00	831.74	207.94
354	12.20 10:45:00	0:15:00	1,396.00	349.00	0.00	0.00	1,181.61	295.40
354	12.20 11:00:00	0:15:00	1,091.04	272.76	0.00	0.00	1,486.57	371.64
354	12.20 11:15:00	0:15:00	806.93	201.73	0.00	0.00	1,770.68	442.67
354	12.20 11:30:00	0:15:00	536.96	134.24	0.00	0.00	2,040.65	510.16
354	12.20 11:45:00	0:15:00	277.17	69.29	0.00	0.00	2,300.44	575.11
354	12.20 12:00:00	0:15:00	134.74	33.68	0.00	0.00	2,442.87	610.72
354	12.20 12:15:00	0:15:00	111.91	27.98	35.24	8.81	2,430.46	607.62
354	12.20 12:30:00	0:15:00	88.58	22.15	275.68	68.92	2,213.35	553.34
354	12.20 12:45:00	0:15:00	66.00	16.50	458.80	114.70	2,052.81	513.20
354	12.20 13:00:00	0:15:00	48.39	12.10	409.67	102.42	2,119.55	529.89
354	12.20 13:15:00	0:15:00	342.18	85.54	268.23	67.06	1,967.20	491.80
354	12.20 13:30:00	0:15:00	924.54	231.14	210.42	52.60	1,442.65	360.66
354	12.20 13:45:00	0:15:00	1,577.13	394.28	175.68	43.92	824.79	206.20
354	12.20 14:00:00	0:15:00	2,285.80	571.45	33.00	8.25	258.80	64.70
354	12.20 14:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
354	12.20 14:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
354	12.20 14:45:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
354	12.20 15:00:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
354	12.20 15:15:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
354	12.20 15:30:00	0:15:00	2,577.61	644.40	0.00	0.00	0.00	0.00
354	12.20 15:45:00	0:12:36	2,577.61	541.30	0.00	0.00	0.00	0.00
354	12.20 15:54:36	0:04:48	2,577.61	206.21	0.00	0.00	0.00	0.00
			1,895,035.54	446,099.99	5,121.22	1,280.31	1,053,780.60	263,085.53

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EXHIBIT D.2

Northeast BART Plaza (Plaza A)

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Summary of Results - 1979 Mission Street - NORTHEAST BART
 PLAZA 'A'
 (Updated datum - FINAL DESIGN)

1979 Mission Street - BART Plaza A
Summary of Results

cadp annualized net new shadow	1,685,082.50 Sq ft hrs	
Annual Available Sunlight (AAS), based on City's AAS Factor	21,663,099.27 Sq ft hrs	
Annual Shadow Increase as a Percentage of AAS	7.779%	8.91%

Exisitng Shadow Load

Annulaized Existing Shadow	5,229,782.81 Sq ft hrs
Annual Available Sunlight (AAS), based on City's AAS Factor	21,663,099.27 Sq ft hrs
	24.1414%

TOTAL Shadow	6,914,865.32
	31.9200%



Quantitative Shadow Results - Impact Times

EXHIBIT D.2

1979 Mission Street - NORTHEAST BART PLAZA 'A'

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
21-Jun	None	1991.06.21 07:30:00	0:15:00		5,286.52	1,321.63	534.70	133.68	
		1991.06.21 07:45:00	0:15:00		4,514.59	1,128.65	1,278.74	319.69	
		1991.06.21 08:00:00	0:15:00		3,853.50	963.37	1,890.21	472.55	
		1991.06.21 08:15:00	0:15:00		3,339.78	834.95	2,426.89	606.72	
		1991.06.21 08:30:00	0:15:00		2,925.05	731.26	2,891.48	722.87	
		1991.06.21 08:45:00	0:15:00		2,607.59	651.90	3,213.63	803.41	
		1991.06.21 09:00:00	0:15:00		2,334.07	583.52	3,487.16	871.79	
		1991.06.21 09:15:00	0:15:00		2,090.42	522.60	3,726.12	931.53	
		1991.06.21 09:30:00	0:15:00		1,874.66	468.67	3,647.12	911.78	
		1991.06.21 09:45:00	0:15:00		1,669.03	417.26	2,978.13	744.53	
		1991.06.21 10:00:00	0:15:00		1,484.13	371.03	2,547.36	636.84	
		1991.06.21 10:15:00	0:15:00		1,315.27	328.82	2,184.22	546.06	
		1991.06.21 10:30:00	0:15:00		1,160.00	290.00	1,871.45	467.86	
		1991.06.21 10:45:00	0:15:00		1,014.84	253.71	1,584.85	396.21	
		1991.06.21 11:00:00	0:15:00		879.57	219.89	1,332.31	333.08	
		1991.06.21 11:15:00	0:15:00		750.46	187.61	1,094.58	273.65	
		1991.06.21 11:30:00	0:15:00		629.25	157.31	882.53	220.63	
		1991.06.21 11:45:00	0:15:00		511.50	127.87	675.66	168.91	
		1991.06.21 12:00:00	0:15:00		399.91	99.98	491.01	122.75	
		1991.06.21 12:15:00	0:15:00		287.35	71.84	307.34	76.84	
		1991.06.21 12:30:00	0:15:00		183.91	45.98	236.99	59.25	
		1991.06.21 12:45:00	0:15:00		77.76	19.44	82.95	20.74	
		1991.06.21 13:00:00	0:15:00		0.99	0.25	28.88	7.22	
		1991.06.21 17:15:00	0:15:00		5.18	1.30	0.49	0.12	
		1991.06.21 17:30:00	0:15:00		369.30	92.33	44.19	11.05	
		1991.06.21 17:45:00	0:15:00		729.97	182.49	111.58	27.90	
		1991.06.21 18:00:00	0:15:00		1,061.50	265.38	209.34	52.33	
		1991.06.21 18:15:00	0:15:00		1,354.53	338.63	280.68	70.17	
		1991.06.21 18:30:00	0:15:00		1,531.03	382.76	374.49	93.62	
		1991.06.21 18:45:00	0:15:00		1,553.50	388.37	329.07	82.27	
		1991.06.21 19:00:00	0:15:00		1,961.56	490.39	217.24	54.31	
		1991.06.21 19:15:00	0:18:00	8:03:00	2,853.22	855.97	129.60	38.88	10,279.22
28-Jun	14-Jun	1991.06.28 07:30:00	0:15:00		5,388.97	1,347.24	432.25	108.06	
		1991.06.28 07:45:00	0:15:00		4,615.31	1,153.83	1,188.63	297.16	
		1991.06.28 08:00:00	0:15:00		3,932.00	983.00	1,816.90	454.22	
		1991.06.28 08:15:00	0:15:00		3,399.52	849.88	2,367.15	591.79	
		1991.06.28 08:30:00	0:15:00		2,971.46	742.87	2,844.58	711.14	
		1991.06.28 08:45:00	0:15:00		2,648.57	662.14	3,172.65	793.16	
		1991.06.28 09:00:00	0:15:00		2,364.68	591.17	3,456.54	864.14	
		1991.06.28 09:15:00	0:15:00		2,120.04	530.01	3,697.73	924.43	
		1991.06.28 09:30:00	0:15:00		1,902.06	475.52	3,711.30	927.83	
		1991.06.28 09:45:00	0:15:00		1,692.97	423.24	3,033.92	758.48	
		1991.06.28 10:00:00	0:15:00		1,505.60	376.40	2,586.11	646.53	
		1991.06.28 10:15:00	0:15:00		1,333.30	333.32	2,219.03	554.76	
		1991.06.28 10:30:00	0:15:00		1,177.03	294.26	1,901.57	475.39	
		1991.06.28 10:45:00	0:15:00		1,030.64	257.66	1,612.25	403.06	
		1991.06.28 11:00:00	0:15:00		893.64	223.41	1,357.24	339.31	
		1991.06.28 11:15:00	0:15:00		763.79	190.95	1,117.05	279.26	
		1991.06.28 11:30:00	0:15:00		642.58	160.65	902.03	225.51	
		1991.06.28 11:45:00	0:15:00		522.85	130.71	696.64	174.16	
		1991.06.28 12:00:00	0:15:00		412.50	103.13	510.01	127.50	
		1991.06.28 12:15:00	0:15:00		299.20	74.80	324.87	81.22	
		1991.06.28 12:30:00	0:15:00		195.02	48.76	244.89	61.22	
		1991.06.28 12:45:00	0:15:00		87.64	21.91	89.12	22.28	
		1991.06.28 13:00:00	0:15:00		5.18	1.30	34.07	8.52	
		1991.06.28 17:15:00	0:15:00		0.00	0.00	0.49	0.12	
		1991.06.28 17:30:00	0:15:00		350.05	87.51	32.59	8.15	
		1991.06.28 17:45:00	0:15:00		712.69	178.17	100.47	25.12	
		1991.06.28 18:00:00	0:15:00		1,056.56	264.14	191.07	47.77	
		1991.06.28 18:15:00	0:15:00		1,356.99	339.25	261.18	65.30	
		1991.06.28 18:30:00	0:15:00		1,534.73	383.68	373.50	93.38	
		1991.06.28 18:45:00	0:15:00		1,594.23	398.56	330.79	82.70	
		1991.06.28 19:00:00	0:15:00		1,956.62	489.16	223.66	55.91	

EXHIBIT D.2

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.06.28 19:15:00	0:18:00	8:03:00	2,791.50	837.45	129.11	38.73	10,246.30
5-Jul	7-Jul	1991.07.05 07:30:00	0:15:00		5,544.00	1,386.00	277.23	69.31	
		1991.07.05 07:45:00	0:15:00		4,760.71	1,190.18	1,060.27	265.07	
		1991.07.05 08:00:00	0:15:00		4,041.11	1,010.28	1,721.61	430.40	
		1991.07.05 08:15:00	0:15:00		3,482.46	870.62	2,293.83	573.46	
		1991.07.05 08:30:00	0:15:00		3,039.60	759.90	2,780.39	695.10	
		1991.07.05 08:45:00	0:15:00		2,698.93	674.73	3,122.30	780.57	
		1991.07.05 09:00:00	0:15:00		2,414.05	603.51	3,407.17	851.79	
		1991.07.05 09:15:00	0:15:00		2,159.29	539.82	3,650.33	912.58	
		1991.07.05 09:30:00	0:15:00		1,930.95	482.74	3,721.67	930.42	
		1991.07.05 09:45:00	0:15:00		1,720.87	430.22	3,095.88	773.97	
		1991.07.05 10:00:00	0:15:00		1,530.04	382.51	2,621.66	655.42	
		1991.07.05 10:15:00	0:15:00		1,355.51	338.88	2,249.89	562.47	
		1991.07.05 10:30:00	0:15:00		1,196.04	299.01	1,928.23	482.06	
		1991.07.05 10:45:00	0:15:00		1,047.18	261.80	1,637.43	409.36	
		1991.07.05 11:00:00	0:15:00		909.93	227.48	1,379.46	344.86	
		1991.07.05 11:15:00	0:15:00		778.11	194.53	1,137.53	284.38	
		1991.07.05 11:30:00	0:15:00		655.66	163.92	921.78	230.44	
		1991.07.05 11:45:00	0:15:00		535.69	133.92	712.69	178.17	
		1991.07.05 12:00:00	0:15:00		422.87	105.72	527.54	131.89	
		1991.07.05 12:15:00	0:15:00		310.06	77.51	341.66	85.41	
		1991.07.05 12:30:00	0:15:00		205.64	51.41	241.92	60.48	
		1991.07.05 12:45:00	0:15:00		97.51	24.38	94.55	23.64	
		1991.07.05 13:00:00	0:15:00		10.62	2.65	39.00	9.75	
		1991.07.05 17:30:00	0:15:00		363.38	90.85	11.85	2.96	
		1991.07.05 17:45:00	0:15:00		738.61	184.65	74.80	18.70	
		1991.07.05 18:00:00	0:15:00		1,098.04	274.51	160.95	40.24	
		1991.07.05 18:15:00	0:15:00		1,421.42	355.36	226.37	56.59	
		1991.07.05 18:30:00	0:15:00		1,631.26	407.81	340.67	85.17	
		1991.07.05 18:45:00	0:15:00		1,697.17	424.29	321.91	80.48	
		1991.07.05 19:00:00	0:15:00		2,047.46	511.87	222.18	55.54	
		1991.07.05 19:15:00	0:18:00	7:48:00	2,858.15	857.45	130.84	39.25	10,119.93
12-Jul	31-May	1991.07.12 07:30:00	0:15:00		5,762.22	1,440.56	59.00	14.75	
		1991.07.12 07:45:00	0:15:00		4,932.52	1,233.13	888.70	222.18	
		1991.07.12 08:00:00	0:15:00		4,176.88	1,044.22	1,604.84	401.21	
		1991.07.12 08:15:00	0:15:00		3,587.38	896.85	2,205.45	551.36	
		1991.07.12 08:30:00	0:15:00		3,125.75	781.44	2,695.47	673.87	
		1991.07.12 08:45:00	0:15:00		2,772.49	693.12	3,048.73	762.18	
		1991.07.12 09:00:00	0:15:00		2,473.30	618.32	3,347.93	836.98	
		1991.07.12 09:15:00	0:15:00		2,212.12	553.03	3,562.45	890.61	
		1991.07.12 09:30:00	0:15:00		1,971.92	492.98	3,651.07	912.77	
		1991.07.12 09:45:00	0:15:00		1,752.96	438.24	3,160.31	790.08	
		1991.07.12 10:00:00	0:15:00		1,558.43	389.61	2,650.54	662.64	
		1991.07.12 10:15:00	0:15:00		1,379.71	344.93	2,273.09	568.27	
		1991.07.12 10:30:00	0:15:00		1,217.27	304.32	1,948.47	487.12	
		1991.07.12 10:45:00	0:15:00		1,065.70	266.42	1,653.97	413.49	
		1991.07.12 11:00:00	0:15:00		925.98	231.49	1,394.76	348.69	
		1991.07.12 11:15:00	0:15:00		792.42	198.11	1,151.36	287.84	
		1991.07.12 11:30:00	0:15:00		669.73	167.43	934.62	233.65	
		1991.07.12 11:45:00	0:15:00		547.29	136.82	727.01	181.75	
		1991.07.12 12:00:00	0:15:00		434.72	108.68	539.64	134.91	
		1991.07.12 12:15:00	0:15:00		319.44	79.86	357.70	89.43	
		1991.07.12 12:30:00	0:15:00		213.54	53.38	239.21	59.80	
		1991.07.12 12:45:00	0:15:00		105.41	26.35	99.24	24.81	
		1991.07.12 13:00:00	0:15:00		14.07	3.52	42.95	10.74	
		1991.07.12 17:30:00	0:15:00		412.75	103.19	2.22	0.56	
		1991.07.12 17:45:00	0:15:00		810.69	202.67	37.03	9.26	
		1991.07.12 18:00:00	0:15:00		1,197.77	299.44	115.04	28.76	
		1991.07.12 18:15:00	0:15:00		1,552.26	388.07	181.69	45.42	
		1991.07.12 18:30:00	0:15:00		1,799.62	449.90	293.02	73.26	
		1991.07.12 18:45:00	0:15:00		1,892.43	473.11	302.16	75.54	
		1991.07.12 19:00:00	0:15:00		2,260.26	565.06	203.41	50.85	
		1991.07.12 19:15:00	0:16:48	7:46:48	3,080.82	862.63	127.63	35.74	9,878.50
19-Jul	24-May	1991.07.19 07:45:00	0:15:00		5,144.08	1,286.02	677.14	169.29	
		1991.07.19 08:00:00	0:15:00		4,358.82	1,089.71	1,444.63	361.16	
		1991.07.19 08:15:00	0:15:00		3,715.50	928.88	2,099.06	524.76	
		1991.07.19 08:30:00	0:15:00		3,236.84	809.21	2,584.39	646.10	

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.07.19 08:45:00	0:15:00		2,860.62	715.16	2,960.60	740.15	9,599.00
		1991.07.19 09:00:00	0:15:00		2,542.42	635.61	3,278.80	819.70	
		1991.07.19 09:15:00	0:15:00		2,269.39	567.35	3,447.41	861.85	
		1991.07.19 09:30:00	0:15:00		2,015.37	503.84	3,539.74	884.93	
		1991.07.19 09:45:00	0:15:00		1,786.78	446.69	3,214.13	803.53	
		1991.07.19 10:00:00	0:15:00		1,586.57	396.64	2,666.84	666.71	
		1991.07.19 10:15:00	0:15:00		1,404.88	351.22	2,285.93	571.48	
		1991.07.19 10:30:00	0:15:00		1,238.50	309.63	1,958.59	489.65	
		1991.07.19 10:45:00	0:15:00		1,083.97	270.99	1,663.59	415.90	
		1991.07.19 11:00:00	0:15:00		941.77	235.44	1,403.40	350.85	
		1991.07.19 11:15:00	0:15:00		805.75	201.44	1,159.75	289.94	
		1991.07.19 11:30:00	0:15:00		680.10	170.03	943.26	235.81	
		1991.07.19 11:45:00	0:15:00		557.66	139.42	734.90	183.73	
		1991.07.19 12:00:00	0:15:00		442.13	110.53	549.51	137.38	
		1991.07.19 12:15:00	0:15:00		327.34	81.83	366.84	91.71	
		1991.07.19 12:30:00	0:15:00		219.95	54.99	236.25	59.06	
		1991.07.19 12:45:00	0:15:00		110.35	27.59	102.20	25.55	
		1991.07.19 13:00:00	0:15:00		16.54	4.14	45.18	11.29	
		1991.07.19 17:45:00	0:15:00		941.28	235.32	11.85	2.96	
		1991.07.19 18:00:00	0:15:00		1,362.18	340.54	69.37	17.34	
		1991.07.19 18:15:00	0:15:00		1,766.04	441.51	134.05	33.51	
		1991.07.19 18:30:00	0:15:00		2,060.05	515.01	236.49	59.12	
		1991.07.19 18:45:00	0:15:00		2,175.34	543.83	278.71	69.68	
		1991.07.19 19:00:00	0:15:00		2,581.67	645.42	173.05	43.26	
		1991.07.19 19:15:00	0:15:00		3,489.87	872.47	130.10	32.52	
		1991.07.19 19:30:00	0:07:48	7:22:48	5,614.11	729.83	0.49	0.06	
26-Jul	17-May	1991.07.26 07:45:00	0:15:00		5,418.10	1,354.53	403.12	100.78	9,220.68
		1991.07.26 08:00:00	0:15:00		4,566.43	1,141.61	1,252.32	313.08	
		1991.07.26 08:15:00	0:15:00		3,865.84	966.46	1,955.38	488.85	
		1991.07.26 08:30:00	0:15:00		3,371.62	842.91	2,449.60	612.40	
		1991.07.26 08:45:00	0:15:00		2,962.33	740.58	2,858.89	714.72	
		1991.07.26 09:00:00	0:15:00		2,625.86	656.46	3,148.71	787.18	
		1991.07.26 09:15:00	0:15:00		2,324.44	581.11	3,301.27	825.32	
		1991.07.26 09:30:00	0:15:00		2,058.33	514.58	3,403.72	850.93	
		1991.07.26 09:45:00	0:15:00		1,824.80	456.20	3,244.00	811.00	
		1991.07.26 10:00:00	0:15:00		1,616.69	404.17	2,679.18	669.80	
		1991.07.26 10:15:00	0:15:00		1,429.57	357.39	2,290.87	572.72	
		1991.07.26 10:30:00	0:15:00		1,259.48	314.87	1,960.57	490.14	
		1991.07.26 10:45:00	0:15:00		1,103.22	275.81	1,661.37	415.34	
		1991.07.26 11:00:00	0:15:00		957.57	239.39	1,404.88	351.22	
		1991.07.26 11:15:00	0:15:00		819.33	204.83	1,159.51	289.88	
		1991.07.26 11:30:00	0:15:00		691.95	172.99	943.75	235.94	
		1991.07.26 11:45:00	0:15:00		567.04	141.76	736.88	184.22	
		1991.07.26 12:00:00	0:15:00		450.27	112.57	554.45	138.61	
		1991.07.26 12:15:00	0:15:00		333.02	83.25	372.02	93.01	
		1991.07.26 12:30:00	0:15:00		224.64	56.16	233.04	58.26	
		1991.07.26 12:45:00	0:15:00		114.05	28.51	104.18	26.04	
		1991.07.26 13:00:00	0:15:00		18.02	4.51	46.16	11.54	
		1991.07.26 18:00:00	0:15:00		1,617.68	404.42	23.45	5.86	
		1991.07.26 18:15:00	0:15:00		2,080.54	520.14	81.46	20.37	
		1991.07.26 18:30:00	0:15:00		2,437.26	609.31	175.02	43.76	
		1991.07.26 18:45:00	0:15:00		2,540.44	635.11	242.66	60.67	
		1991.07.26 19:00:00	0:15:00		3,015.16	753.79	132.32	33.08	
		1991.07.26 19:15:00	0:12:36		4,114.68	864.08	75.79	15.92	
		1991.07.26 19:25:12	0:05:24	7:03:00	5,603.74	504.34	0.74	0.07	
2-Aug	10-May	1991.08.02 07:45:00	0:15:00		5,749.88	1,437.47	71.34	17.84	9,220.68
		1991.08.02 08:00:00	0:15:00		4,800.45	1,200.11	1,020.77	255.19	
		1991.08.02 08:15:00	0:15:00		4,052.96	1,013.24	1,768.26	442.07	
		1991.08.02 08:30:00	0:15:00		3,513.08	878.27	2,308.15	577.04	
		1991.08.02 08:45:00	0:15:00		3,073.66	768.42	2,731.51	682.88	
		1991.08.02 09:00:00	0:15:00		2,706.83	676.71	2,969.49	742.37	
		1991.08.02 09:15:00	0:15:00		2,379.49	594.87	3,136.86	784.22	
		1991.08.02 09:30:00	0:15:00		2,101.53	525.38	3,243.75	810.94	
		1991.08.02 09:45:00	0:15:00		1,858.37	464.59	3,220.55	805.14	
		1991.08.02 10:00:00	0:15:00		1,644.83	411.21	2,663.63	665.91	
		1991.08.02 10:15:00	0:15:00		1,452.53	363.13	2,274.33	568.58	
		1991.08.02 10:30:00	0:15:00		1,278.49	319.62	1,946.00	486.50	
		1991.08.02 10:45:00	0:15:00		1,117.79	279.45	1,648.54	412.13	

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSfHr	NewSF	NewSFHr	New SFHR Total/day
		1991.08.02 11:00:00	0:15:00		968.19	242.05	1,390.57	347.64	8,742.95
		1991.08.02 11:15:00	0:15:00		827.72	206.93	1,150.62	287.65	
		1991.08.02 11:30:00	0:15:00		697.88	174.47	935.36	233.84	
		1991.08.02 11:45:00	0:15:00		571.73	142.93	728.98	182.25	
		1991.08.02 12:00:00	0:15:00		452.74	113.19	549.02	137.26	
		1991.08.02 12:15:00	0:15:00		334.00	83.50	371.28	92.82	
		1991.08.02 12:30:00	0:15:00		224.64	56.16	229.33	57.33	
		1991.08.02 12:45:00	0:15:00		112.82	28.20	103.19	25.80	
		1991.08.02 13:00:00	0:15:00		16.05	4.01	44.68	11.17	
		1991.08.02 18:15:00	0:15:00		2,536.00	634.00	28.64	7.16	
		1991.08.02 18:30:00	0:15:00		2,915.67	728.92	108.13	27.03	
		1991.08.02 18:45:00	0:15:00		2,985.29	746.32	197.49	49.37	
		1991.08.02 19:00:00	0:15:00		3,548.62	887.16	120.47	30.12	
		1991.08.02 19:15:00	0:09:00		5,014.48	752.17	17.53	2.63	
		1991.08.02 19:18:36	0:01:48	6:40:48	5,559.06	166.77	2.96	0.09	
9-Aug	3-May	1991.08.09 08:00:00	0:15:00		5,099.65	1,274.91	721.57	180.39	8,203.37
		1991.08.09 08:15:00	0:15:00		4,277.36	1,069.34	1,543.87	385.97	
		1991.08.09 08:30:00	0:15:00		3,679.21	919.80	2,139.30	534.82	
		1991.08.09 08:45:00	0:15:00		3,186.23	796.56	2,517.73	629.43	
		1991.08.09 09:00:00	0:15:00		2,777.43	694.36	2,777.68	694.42	
		1991.08.09 09:15:00	0:15:00		2,433.55	608.39	2,953.69	738.42	
		1991.08.09 09:30:00	0:15:00		2,144.73	536.18	3,063.79	765.95	
		1991.08.09 09:45:00	0:15:00		1,892.93	473.23	3,086.75	771.69	
		1991.08.09 10:00:00	0:15:00		1,672.73	418.18	2,625.86	656.46	
		1991.08.09 10:15:00	0:15:00		1,473.27	368.32	2,238.29	559.57	
		1991.08.09 10:30:00	0:15:00		1,294.79	323.70	1,913.42	478.35	
		1991.08.09 10:45:00	0:15:00		1,129.14	282.29	1,616.69	404.17	
		1991.08.09 11:00:00	0:15:00		978.56	244.64	1,361.19	340.30	
		1991.08.09 11:15:00	0:15:00		835.87	208.97	1,122.48	280.62	
		1991.08.09 11:30:00	0:15:00		703.55	175.89	912.40	228.10	
		1991.08.09 11:45:00	0:15:00		574.94	143.74	711.45	177.86	
		1991.08.09 12:00:00	0:15:00		453.24	113.31	536.68	134.17	
		1991.08.09 12:15:00	0:15:00		333.26	83.32	363.87	90.97	
		1991.08.09 12:30:00	0:15:00		220.94	55.24	226.37	56.59	
		1991.08.09 12:45:00	0:15:00		108.37	27.09	100.72	25.18	
		1991.08.09 13:00:00	0:15:00		12.59	3.15	40.49	10.12	
		1991.08.09 18:30:00	0:15:00		3,372.36	843.09	51.59	12.90	
		1991.08.09 18:45:00	0:20:24		3,508.14	1,192.77	135.53	46.08	
		1991.08.09 19:10:48	0:12:36	6:03:00	5,569.92	1,169.68	3.95	0.83	
16-Aug	26-May	1991.08.16 08:00:00	0:15:00		5,465.50	1,366.37	355.73	88.93	7,595.18
		1991.08.16 08:15:00	0:15:00		4,543.47	1,135.87	1,277.75	319.44	
		1991.08.16 08:30:00	0:15:00		3,842.14	960.54	1,882.56	470.64	
		1991.08.16 08:45:00	0:15:00		3,286.21	821.55	2,291.86	572.96	
		1991.08.16 09:00:00	0:15:00		2,847.54	711.89	2,573.28	643.32	
		1991.08.16 09:15:00	0:15:00		2,490.33	622.58	2,751.76	687.94	
		1991.08.16 09:30:00	0:15:00		2,187.43	546.86	2,867.78	716.95	
		1991.08.16 09:45:00	0:15:00		1,927.74	481.93	2,904.81	726.20	
		1991.08.16 10:00:00	0:15:00		1,696.67	424.17	2,566.86	641.71	
		1991.08.16 10:15:00	0:15:00		1,492.77	373.19	2,174.10	543.53	
		1991.08.16 10:30:00	0:15:00		1,309.84	327.46	1,855.16	463.79	
		1991.08.16 10:45:00	0:15:00		1,141.24	285.31	1,567.07	391.77	
		1991.08.16 11:00:00	0:15:00		985.96	246.49	1,321.45	330.36	
		1991.08.16 11:15:00	0:15:00		839.33	209.83	1,085.69	271.42	
		1991.08.16 11:30:00	0:15:00		705.28	176.32	882.03	220.51	
		1991.08.16 11:45:00	0:15:00		572.96	143.24	688.00	172.00	
		1991.08.16 12:00:00	0:15:00		451.51	112.88	515.94	128.99	
		1991.08.16 12:15:00	0:15:00		330.30	82.58	349.80	87.45	
		1991.08.16 12:30:00	0:15:00		216.00	54.00	222.67	55.67	
		1991.08.16 12:45:00	0:15:00		101.71	25.43	96.77	24.19	
		1991.08.16 13:00:00	0:15:00		7.41	1.85	34.81	8.70	
		1991.08.16 18:30:00	0:15:00		3,880.16	970.04	14.57	3.64	
		1991.08.16 18:45:00	0:16:12		4,114.18	1,110.83	88.38	23.86	
		1991.08.16 19:02:23	0:08:24	5:54:36	5,536.59	775.12	8.64	1.21	
23-Aug	19-Apr	1991.08.23 08:15:00	0:15:00		4,784.66	1,196.16	948.93	237.23	
		1991.08.23 08:30:00	0:15:00		3,976.19	994.05	1,622.62	405.65	
		1991.08.23 08:45:00	0:15:00		3,378.29	844.57	2,062.28	515.57	
		1991.08.23 09:00:00	0:15:00		2,914.44	728.61	2,357.27	589.32	

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.08.23 09:15:00	0:15:00		2,539.95	634.99	2,541.18	635.30	
		1991.08.23 09:30:00	0:15:00		2,223.72	555.93	2,653.26	663.32	
		1991.08.23 09:45:00	0:15:00		1,953.90	488.48	2,686.59	671.65	
		1991.08.23 10:00:00	0:15:00		1,718.64	429.66	2,462.93	615.73	
		1991.08.23 10:15:00	0:15:00		1,507.09	376.77	2,076.59	519.15	
		1991.08.23 10:30:00	0:15:00		1,320.21	330.05	1,774.93	443.73	
		1991.08.23 10:45:00	0:15:00		1,146.92	286.73	1,496.47	374.12	
		1991.08.23 11:00:00	0:15:00		988.43	247.11	1,258.74	314.69	
		1991.08.23 11:15:00	0:15:00		840.31	210.08	1,035.58	258.90	
		1991.08.23 11:30:00	0:15:00		701.58	175.40	839.57	209.89	
		1991.08.23 11:45:00	0:15:00		568.77	142.19	650.73	162.68	
		1991.08.23 12:00:00	0:15:00		444.60	111.15	489.28	122.32	
		1991.08.23 12:15:00	0:15:00		321.41	80.35	331.04	82.76	
		1991.08.23 12:30:00	0:15:00		205.88	51.47	216.74	54.19	
		1991.08.23 12:45:00	0:15:00		89.36	22.34	90.35	22.59	
		1991.08.23 13:00:00	0:15:00		1.73	0.43	26.91	6.73	
		1991.08.23 18:45:00	0:11:24		4,849.33	921.37	41.47	7.88	
		1991.08.23 18:52:48	0:03:36	5:15:00	5,539.56	332.37	12.10	0.73	6,913.38
30-Aug	12-Apr	1991.08.30 08:00:00	0:15:00		5,731.86	1,432.97	17.28	4.32	
		1991.08.30 08:15:00	0:15:00		5,000.16	1,250.04	619.62	154.91	
		1991.08.30 08:30:00	0:15:00		4,116.65	1,029.16	1,352.30	338.08	
		1991.08.30 08:45:00	0:15:00		3,473.58	868.39	1,816.90	454.22	
		1991.08.30 09:00:00	0:15:00		2,979.86	744.96	2,119.05	529.76	
		1991.08.30 09:15:00	0:15:00		2,588.09	647.02	2,302.96	575.74	
		1991.08.30 09:30:00	0:15:00		2,258.53	564.63	2,417.26	604.32	
		1991.08.30 09:45:00	0:15:00		1,978.84	494.71	2,449.85	612.46	
		1991.08.30 10:00:00	0:15:00		1,734.20	433.55	2,320.99	580.25	
		1991.08.30 10:15:00	0:15:00		1,519.68	379.92	1,955.14	488.78	
		1991.08.30 10:30:00	0:15:00		1,325.89	331.47	1,672.48	418.12	
		1991.08.30 10:45:00	0:15:00		1,149.63	287.41	1,408.83	352.21	
		1991.08.30 11:00:00	0:15:00		988.92	247.23	1,185.67	296.42	
		1991.08.30 11:15:00	0:15:00		837.85	209.46	972.14	243.03	
		1991.08.30 11:30:00	0:15:00		698.62	174.65	786.50	196.63	
		1991.08.30 11:45:00	0:15:00		562.35	140.59	608.76	152.19	
		1991.08.30 12:00:00	0:15:00		435.46	108.87	456.45	114.11	
		1991.08.30 12:15:00	0:15:00		310.80	77.70	307.84	76.96	
		1991.08.30 12:30:00	0:15:00		192.80	48.20	209.34	52.33	
		1991.08.30 12:45:00	0:15:00		76.03	19.01	81.71	20.43	
		1991.08.30 13:00:00	0:15:00		0.00	0.00	17.28	4.32	
		1991.08.30 18:42:36	0:06:36	5:21:36	5,571.15	612.83	1.73	0.19	6,269.77
6-Sep	5-Apr	1991.09.06 07:44:24	0:07:48		5,734.33	745.46	54.80	7.12	
		1991.09.06 08:00:00	0:15:00		5,592.14	1,398.03	64.92	16.23	
		1991.09.06 08:15:00	0:15:00		5,218.39	1,304.60	274.26	68.57	
		1991.09.06 08:30:00	0:15:00		4,260.08	1,065.02	1,048.42	262.10	
		1991.09.06 08:45:00	0:15:00		3,568.37	892.09	1,541.89	385.47	
		1991.09.06 09:00:00	0:15:00		3,049.72	762.43	1,860.84	465.21	
		1991.09.06 09:15:00	0:15:00		2,633.02	658.25	2,057.34	514.33	
		1991.09.06 09:30:00	0:15:00		2,290.87	572.72	2,172.13	543.03	
		1991.09.06 09:45:00	0:15:00		2,001.30	500.33	2,201.26	550.31	
		1991.09.06 10:00:00	0:15:00		1,750.00	437.50	2,127.94	531.99	
		1991.09.06 10:15:00	0:15:00		1,528.56	382.14	1,810.97	452.74	
		1991.09.06 10:30:00	0:15:00		1,331.07	332.77	1,549.05	387.26	
		1991.09.06 10:45:00	0:15:00		1,151.36	287.84	1,306.39	326.60	
		1991.09.06 11:00:00	0:15:00		986.95	246.74	1,098.28	274.57	
		1991.09.06 11:15:00	0:15:00		834.64	208.66	899.31	224.83	
		1991.09.06 11:30:00	0:15:00		692.44	173.11	724.29	181.07	
		1991.09.06 11:45:00	0:15:00		554.45	138.61	559.63	139.91	
		1991.09.06 12:00:00	0:15:00		424.35	106.09	418.43	104.61	
		1991.09.06 12:15:00	0:15:00		297.22	74.31	284.38	71.10	
		1991.09.06 12:30:00	0:15:00		176.26	44.07	199.71	49.93	
		1991.09.06 12:45:00	0:15:00		61.22	15.31	70.85	17.71	
		1991.09.06 13:00:00	0:15:00	5:22:48	0.00	0.00	5.18	1.30	5,575.99
13-Sep	29-Mar	1991.09.13 07:50:24	0:04:48		5,549.92	443.99	79.98	6.40	
		1991.09.13 08:00:00	0:12:36		5,442.79	1,142.99	63.44	13.32	
		1991.09.13 08:15:00	0:15:00		5,270.23	1,317.56	55.54	13.89	
		1991.09.13 08:30:00	0:15:00		4,403.01	1,100.75	727.50	181.88	
		1991.09.13 08:45:00	0:15:00		3,663.66	915.92	1,259.24	314.81	

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.09.13 09:00:00	0:15:00		3,111.43	777.86	1,600.40	400.10	4,837.83
		1991.09.13 09:15:00	0:15:00		2,673.50	668.38	1,807.27	451.82	
		1991.09.13 09:30:00	0:15:00		2,319.01	579.75	1,920.33	480.08	
		1991.09.13 09:45:00	0:15:00		2,019.81	504.95	1,942.55	485.64	
		1991.09.13 10:00:00	0:15:00		1,763.33	440.83	1,895.64	473.91	
		1991.09.13 10:15:00	0:15:00		1,534.73	383.68	1,633.48	408.37	
		1991.09.13 10:30:00	0:15:00		1,334.53	333.63	1,402.91	350.73	
		1991.09.13 10:45:00	0:15:00		1,150.87	287.72	1,184.19	296.05	
		1991.09.13 11:00:00	0:15:00		984.23	246.06	997.32	249.33	
		1991.09.13 11:15:00	0:15:00		827.72	206.93	815.63	203.91	
		1991.09.13 11:30:00	0:15:00		683.06	170.77	658.38	164.59	
		1991.09.13 11:45:00	0:15:00		544.08	136.02	505.57	126.39	
		1991.09.13 12:00:00	0:15:00		411.27	102.82	377.70	94.42	
		1991.09.13 12:15:00	0:15:00		282.41	70.60	259.70	64.92	
		1991.09.13 12:30:00	0:15:00		159.97	39.99	170.09	42.52	
		1991.09.13 12:45:00	0:15:00	5:02:24	43.69	10.92	59.00	14.75	
20-Sep	22-Mar	1991.09.20 07:57:00	0:01:12		5,316.39	106.33	67.39	1.35	4,109.28
		1991.09.20 08:00:00	0:09:00		5,278.62	791.79	63.69	9.55	
		1991.09.20 08:15:00	0:15:00		5,095.45	1,273.86	51.35	12.84	
		1991.09.20 08:30:00	0:15:00		4,532.12	1,133.03	418.18	104.55	
		1991.09.20 08:45:00	0:15:00		3,753.27	938.32	975.59	243.90	
		1991.09.20 09:00:00	0:15:00		3,165.74	791.44	1,344.16	336.04	
		1991.09.20 09:15:00	0:15:00		2,713.25	678.31	1,550.29	387.57	
		1991.09.20 09:30:00	0:15:00		2,344.93	586.23	1,663.59	415.90	
		1991.09.20 09:45:00	0:15:00		2,036.35	509.09	1,677.17	419.29	
		1991.09.20 10:00:00	0:15:00		1,772.71	443.18	1,622.12	405.53	
		1991.09.20 10:15:00	0:15:00		1,540.41	385.10	1,423.40	355.85	
		1991.09.20 10:30:00	0:15:00		1,335.02	333.76	1,233.56	308.39	
		1991.09.20 10:45:00	0:15:00		1,148.15	287.04	1,044.47	261.12	
		1991.09.20 11:00:00	0:15:00		980.28	245.07	883.27	220.82	
		1991.09.20 11:15:00	0:15:00		820.57	205.14	722.31	180.58	
		1991.09.20 11:30:00	0:15:00		672.94	168.24	583.09	145.77	
		1991.09.20 11:45:00	0:15:00		532.48	133.12	444.84	111.21	
		1991.09.20 12:00:00	0:15:00		397.45	99.36	335.24	83.81	
		1991.09.20 12:15:00	0:15:00		266.61	66.65	234.52	58.63	
		1991.09.20 12:30:00	0:15:00		141.95	35.49	139.23	34.81	
		1991.09.20 12:45:00	0:15:00	4:55:12	26.41	6.60	47.15	11.79	
27-Sep	15-Mar	1991.09.27 08:03:00	0:06:00		5,068.05	506.81	58.01	5.80	3,349.17
		1991.09.27 08:15:00	0:13:12		4,916.48	1,081.63	46.90	10.32	
		1991.09.27 08:30:00	0:15:00		4,655.05	1,163.76	112.82	28.20	
		1991.09.27 08:45:00	0:15:00		3,836.46	959.12	700.84	175.21	
		1991.09.27 09:00:00	0:15:00		3,233.63	808.41	1,070.14	267.54	
		1991.09.27 09:15:00	0:15:00		2,751.02	687.75	1,292.07	323.02	
		1991.09.27 09:30:00	0:15:00		2,368.63	592.16	1,403.90	350.97	
		1991.09.27 09:45:00	0:15:00		2,051.66	512.92	1,411.30	352.83	
		1991.09.27 10:00:00	0:15:00		1,782.58	445.65	1,342.43	335.61	
		1991.09.27 10:15:00	0:15:00		1,544.61	386.15	1,178.02	294.51	
		1991.09.27 10:30:00	0:15:00		1,333.79	333.45	1,035.09	258.77	
		1991.09.27 10:45:00	0:15:00		1,147.16	286.79	884.01	221.00	
		1991.09.27 11:00:00	0:15:00		973.13	243.28	753.91	188.48	
		1991.09.27 11:15:00	0:15:00		812.91	203.23	616.91	154.23	
		1991.09.27 11:30:00	0:15:00		663.32	165.83	498.17	124.54	
		1991.09.27 11:45:00	0:15:00		519.15	129.79	384.61	96.15	
		1991.09.27 12:00:00	0:15:00		381.15	95.29	293.02	73.26	
		1991.09.27 12:15:00	0:15:00		249.08	62.27	209.09	52.27	
		1991.09.27 12:30:00	0:15:00		122.94	30.73	113.80	28.45	
		1991.09.27 12:45:00	0:15:00	4:49:12	8.64	2.16	32.09	8.02	
4-Oct	8-Mar	1991.10.04 08:09:36	0:02:24		4,812.30	192.49	51.35	2.05	
		1991.10.04 08:15:00	0:10:12		4,740.47	805.88	46.90	7.97	
		1991.10.04 08:30:00	0:15:00		4,544.46	1,136.12	43.20	10.80	
		1991.10.04 08:45:00	0:15:00		3,912.74	978.19	436.70	109.17	
		1991.10.04 09:00:00	0:15:00		3,278.31	819.58	822.29	205.57	
		1991.10.04 09:15:00	0:15:00		2,788.05	697.01	1,040.77	260.19	
		1991.10.04 09:30:00	0:15:00		2,394.55	598.64	1,147.16	286.79	
		1991.10.04 09:45:00	0:15:00		2,068.45	517.11	1,142.23	285.56	
		1991.10.04 10:00:00	0:15:00		1,790.73	447.68	1,067.18	266.80	
		1991.10.04 10:15:00	0:15:00		1,549.55	387.39	943.75	235.94	

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.10.04 10:30:00	0:15:00		1,337.74	334.44	838.09	209.52	
		1991.10.04 10:45:00	0:15:00		1,144.94	286.24	721.33	180.33	
		1991.10.04 11:00:00	0:15:00		970.66	242.66	618.88	154.72	
		1991.10.04 11:15:00	0:15:00		804.77	201.19	511.50	127.87	
		1991.10.04 11:30:00	0:15:00		652.70	163.18	413.99	103.50	
		1991.10.04 11:45:00	0:15:00		506.31	126.58	322.65	80.66	
		1991.10.04 12:00:00	0:15:00		366.84	91.71	252.05	63.01	
		1991.10.04 12:15:00	0:15:00		232.79	58.20	187.61	46.90	
		1991.10.04 12:30:00	0:15:00		105.16	26.29	95.29	23.82	
		1991.10.04 12:45:00	0:15:00	4:42:36	2.96	0.74	24.93	6.23	2,667.42
11-Oct	1-Mar	1991.10.11 08:16:11	0:07:12		4,553.59	546.43	51.59	6.19	
	1991.10.11 08:30:00	0:14:24		4,364.00	1,047.36	42.46	10.19		
	1991.10.11 08:45:00	0:15:00		3,976.68	994.17	195.27	48.82		
	1991.10.11 09:00:00	0:15:00		3,352.37	838.09	577.16	144.29		
	1991.10.11 09:15:00	0:15:00		2,976.65	744.16	796.13	199.03		
	1991.10.11 09:30:00	0:15:00		2,541.18	635.30	897.59	224.40		
	1991.10.11 09:45:00	0:15:00		2,098.56	524.64	882.28	220.57		
	1991.10.11 10:00:00	0:15:00		1,802.58	450.64	823.28	205.82		
	1991.10.11 10:15:00	0:15:00		1,557.44	389.36	739.60	184.90		
	1991.10.11 10:30:00	0:15:00		1,340.21	335.05	665.04	166.26		
	1991.10.11 10:45:00	0:15:00		1,144.45	286.11	577.65	144.41		
	1991.10.11 11:00:00	0:15:00		967.94	241.99	500.63	125.16		
	1991.10.11 11:15:00	0:15:00		800.08	200.02	413.99	103.50		
	1991.10.11 11:30:00	0:15:00		644.80	161.20	338.69	84.67		
	1991.10.11 11:45:00	0:15:00		496.44	124.11	267.10	66.78		
	1991.10.11 12:00:00	0:15:00		355.23	88.81	216.00	54.00		
	1991.10.11 12:15:00	0:15:00		217.98	54.50	173.54	43.39		
1991.10.11 12:30:00	0:15:00		90.60	22.65	84.67	21.17			
		1991.10.11 12:45:00	0:15:00	4:36:36	0.00	0.00	10.12	2.53	2,056.07
18-Oct	22-Feb	1991.10.18 08:22:48	0:03:36		4,570.38	274.22	50.11	3.01	
	1991.10.18 08:30:00	0:10:48		4,491.88	808.54	45.18	8.13		
	1991.10.18 08:45:00	0:15:00		3,980.14	995.03	39.99	10.00		
	1991.10.18 09:00:00	0:15:00		3,518.51	879.63	356.71	89.18		
	1991.10.18 09:15:00	0:15:00		3,283.00	820.75	561.86	140.46		
	1991.10.18 09:30:00	0:15:00		3,000.59	750.15	655.91	163.98		
	1991.10.18 09:45:00	0:15:00		2,634.00	658.50	648.50	162.13		
	1991.10.18 10:00:00	0:15:00		2,151.39	537.85	621.60	155.40		
	1991.10.18 10:15:00	0:15:00		1,786.53	446.63	572.22	143.06		
	1991.10.18 10:30:00	0:15:00		1,448.09	362.02	522.85	130.71		
	1991.10.18 10:45:00	0:15:00		1,177.77	294.44	458.67	114.67		
	1991.10.18 11:00:00	0:15:00		967.69	241.92	399.42	99.86		
	1991.10.18 11:15:00	0:15:00		797.11	199.28	331.78	82.95		
	1991.10.18 11:30:00	0:15:00		638.38	159.60	273.52	68.38		
	1991.10.18 11:45:00	0:15:00		489.28	122.32	220.20	55.05		
	1991.10.18 12:00:00	0:15:00		345.11	86.28	187.61	46.90		
	1991.10.18 12:15:00	0:15:00		205.88	51.47	162.19	40.55		
		1991.10.18 12:30:00	0:15:00	4:14:24	76.53	19.13	75.54	18.89	1,533.28
25-Oct	15-Feb	1991.10.25 07:30:00	0:07:48		4,928.33	640.68	49.37	6.42	
	1991.10.25 07:45:00	0:15:00		4,589.39	1,147.35	40.24	10.06		
	1991.10.25 08:00:00	0:15:00		3,881.64	970.41	171.57	42.89		
	1991.10.25 08:15:00	0:15:00		3,585.90	896.48	355.48	88.87		
	1991.10.25 08:30:00	0:15:00		3,499.00	874.75	437.93	109.48		
	1991.10.25 08:45:00	0:15:00		3,256.09	814.02	455.71	113.93		
	1991.10.25 09:00:00	0:15:00		2,715.96	678.99	459.16	114.79		
	1991.10.25 09:15:00	0:15:00		2,267.42	566.85	431.51	107.88		
	1991.10.25 09:30:00	0:15:00		1,813.44	453.36	405.59	101.40		
	1991.10.25 09:45:00	0:15:00		1,458.95	364.74	360.42	90.10		
	1991.10.25 10:00:00	0:15:00		1,150.87	287.72	316.72	79.18		
	1991.10.25 10:15:00	0:15:00		903.76	225.94	267.60	66.90		
	1991.10.25 10:30:00	0:15:00		684.30	171.07	221.19	55.30		
	1991.10.25 10:45:00	0:15:00		499.65	124.91	184.41	46.10		
	1991.10.25 11:00:00	0:15:00		338.45	84.61	167.37	41.84		
	1991.10.25 11:15:00	0:15:00		197.49	49.37	152.07	38.02		
			1991.10.25 11:30:00	0:15:00	4:07:48	66.65	16.66	68.87	
1-Nov	8-Feb	1991.11.01 07:36:35	0:04:12		5,495.12	384.66	37.03	2.59	
	1991.11.01 07:45:00	0:11:24		5,427.73	1,031.27	44.93	8.54		
	1991.11.01 08:00:00	0:15:00		4,581.00	1,145.25	51.59	12.90		

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.11.01 08:15:00	0:15:00		4,088.26	1,022.07	184.41	46.10	
		1991.11.01 08:30:00	0:15:00		4,009.76	1,002.44	262.17	65.54	
		1991.11.01 08:45:00	0:15:00		3,898.18	974.54	302.90	75.73	
		1991.11.01 09:00:00	0:15:00		3,433.09	858.27	322.15	80.54	
		1991.11.01 09:15:00	0:15:00		2,821.12	705.28	277.97	69.49	
		1991.11.01 09:30:00	0:15:00		2,193.11	548.28	279.94	69.99	
		1991.11.01 09:45:00	0:15:00		1,742.34	435.59	264.64	66.16	
		1991.11.01 10:00:00	0:15:00		1,355.02	338.76	251.55	62.89	
		1991.11.01 10:15:00	0:15:00		1,041.01	260.25	214.77	53.69	
		1991.11.01 10:30:00	0:15:00		767.49	191.87	182.43	45.61	
		1991.11.01 10:45:00	0:15:00		532.48	133.12	157.25	39.31	
		1991.11.01 11:00:00	0:15:00		335.73	83.93	155.03	38.76	
		1991.11.01 11:15:00	0:15:00		194.03	48.51	145.15	36.29	
		1991.11.01 11:30:00	0:15:00	4:00:36	60.73	15.18	65.91	16.48	790.59
8-Nov	1-Feb	1991.11.08 08:00:00	0:15:00		5,172.97	1,293.24	5.18	1.30	
		1991.11.08 08:15:00	0:15:00		4,617.53	1,154.38	70.60	17.65	
		1991.11.08 08:30:00	0:15:00		4,490.89	1,122.72	136.51	34.13	
		1991.11.08 08:45:00	0:15:00		4,508.66	1,127.17	186.38	46.60	
		1991.11.08 09:00:00	0:15:00		4,300.56	1,075.14	206.13	51.53	
		1991.11.08 09:15:00	0:15:00		3,498.26	874.57	186.13	46.53	
		1991.11.08 09:30:00	0:15:00		2,648.32	662.08	185.64	46.41	
		1991.11.08 09:45:00	0:15:00		2,045.24	511.31	171.32	42.83	
		1991.11.08 10:00:00	0:15:00		1,571.76	392.94	164.66	41.16	
		1991.11.08 10:15:00	0:15:00		1,192.09	298.02	145.15	36.29	
		1991.11.08 10:30:00	0:15:00		857.35	214.34	135.28	33.82	
		1991.11.08 10:45:00	0:15:00		569.76	142.44	131.33	32.83	
		1991.11.08 11:00:00	0:15:00		339.43	84.86	146.14	36.54	
		1991.11.08 11:15:00	0:15:00		195.51	48.88	143.92	35.98	
		1991.11.08 11:30:00	0:15:00	3:45:00	61.22	15.31	65.67	16.42	520.01
15-Nov	25-Jan	1991.11.15 08:15:00	0:15:00		5,030.78	1,257.69	5.18	1.30	
		1991.11.15 08:30:00	0:15:00		4,871.30	1,217.83	60.98	15.24	
		1991.11.15 08:45:00	0:15:00		5,064.35	1,266.09	101.46	25.37	
		1991.11.15 09:00:00	0:15:00		5,020.16	1,255.04	111.09	27.77	
		1991.11.15 09:15:00	0:15:00		4,239.34	1,059.84	115.78	28.94	
		1991.11.15 09:30:00	0:15:00		3,299.54	824.89	126.64	31.66	
		1991.11.15 09:45:00	0:15:00		2,583.15	645.79	118.00	29.50	
		1991.11.15 10:00:00	0:15:00		1,911.69	477.92	106.64	26.66	
		1991.11.15 10:15:00	0:15:00		1,369.09	342.27	92.82	23.21	
		1991.11.15 10:30:00	0:15:00		958.56	239.64	85.17	21.29	
		1991.11.15 10:45:00	0:15:00		620.11	155.03	95.54	23.88	
		1991.11.15 11:00:00	0:15:00		349.06	87.27	138.00	34.50	
		1991.11.15 11:15:00	0:15:00		202.67	50.67	147.87	36.97	
		1991.11.15 11:30:00	0:15:00	3:30:00	67.15	16.79	67.89	16.97	343.26
22-Nov	18-Jan	1991.11.22 08:30:00	0:15:00		5,143.59	1,285.90	36.29	9.07	
		1991.11.22 08:45:00	0:15:00		5,357.87	1,339.47	53.82	13.45	
		1991.11.22 09:00:00	0:15:00		5,573.38	1,393.34	44.93	11.23	
		1991.11.22 09:15:00	0:15:00		4,977.45	1,244.36	64.92	16.23	
		1991.11.22 09:30:00	0:15:00		3,963.10	990.78	79.74	19.93	
		1991.11.22 09:45:00	0:15:00		3,158.09	789.52	79.98	20.00	
		1991.11.22 10:00:00	0:15:00		2,434.05	608.51	77.02	19.26	
		1991.11.22 10:15:00	0:15:00		1,853.43	463.36	60.73	15.18	
		1991.11.22 10:30:00	0:15:00		1,281.21	320.30	53.08	13.27	
		1991.11.22 10:45:00	0:15:00		813.16	203.29	62.70	15.68	
		1991.11.22 11:00:00	0:15:00		398.43	99.61	129.60	32.40	
		1991.11.22 11:15:00	0:15:00		224.89	56.22	155.28	38.82	
		1991.11.22 11:30:00	0:15:00	3:15:00	77.76	19.44	75.05	18.76	243.28
29-Nov	11-Jan	1991.11.29 08:30:00	0:15:00		5,325.77	1,331.44	15.06	3.77	
		1991.11.29 08:45:00	0:15:00		5,496.60	1,374.15	38.02	9.50	
		1991.11.29 09:00:00	0:15:00		5,780.99	1,445.25	11.60	2.90	
		1991.11.29 09:15:00	0:15:00		5,651.38	1,412.85	22.46	5.62	
		1991.11.29 09:30:00	0:15:00		4,572.35	1,143.09	48.63	12.16	
		1991.11.29 09:45:00	0:15:00		3,704.64	926.16	53.08	13.27	
		1991.11.29 10:00:00	0:15:00		2,918.14	729.54	55.54	13.89	
		1991.11.29 10:15:00	0:15:00		2,307.90	576.98	44.44	11.11	
		1991.11.29 10:30:00	0:15:00		1,711.98	428.00	34.31	8.58	
		1991.11.29 10:45:00	0:15:00		1,215.30	303.82	29.87	7.47	
		1991.11.29 11:00:00	0:15:00		743.30	185.82	121.21	30.30	

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		1991.11.29 11:15:00	0:15:00		506.81	126.70	154.04	38.51	
		1991.11.29 11:30:00	0:15:00		253.77	63.44	85.91	21.48	
		1991.11.29 11:45:00	0:15:00	3:30:00	128.61	32.15	9.87	2.47	181.01
6-Dec	4-Jan	1991.12.06 08:45:00	0:15:00		5,555.85	1,388.96	37.52	9.38	
		1991.12.06 09:00:00	0:15:00		5,809.37	1,452.34	0.25	0.06	
		1991.12.06 09:15:00	0:15:00		5,820.73	1,455.18	0.49	0.12	
		1991.12.06 09:30:00	0:15:00		5,176.92	1,294.23	24.19	6.05	
		1991.12.06 09:45:00	0:15:00		4,209.72	1,052.43	34.56	8.64	
		1991.12.06 10:00:00	0:15:00		3,354.10	838.52	40.73	10.18	
		1991.12.06 10:15:00	0:15:00		2,707.82	676.95	34.07	8.52	
		1991.12.06 10:30:00	0:15:00		2,073.14	518.28	26.66	6.67	
		1991.12.06 10:45:00	0:15:00		1,562.88	390.72	16.29	4.07	
		1991.12.06 11:00:00	0:15:00		1,056.32	264.08	111.33	27.83	
		1991.12.06 11:15:00	0:15:00		796.13	199.03	147.38	36.84	
		1991.12.06 11:30:00	0:15:00		534.21	133.55	99.73	24.93	
		1991.12.06 11:45:00	0:15:00	3:15:00	374.74	93.68	16.54	4.14	147.44
13-Dec	27-Dec	1991.12.13 08:45:00	0:15:00		5,577.32	1,394.33	19.01	4.75	
		1991.12.13 09:45:00	0:15:00		4,650.61	1,162.65	23.21	5.80	
		1991.12.13 10:00:00	0:15:00		3,734.02	933.50	30.86	7.71	
		1991.12.13 10:15:00	0:15:00		3,033.43	758.36	28.39	7.10	
		1991.12.13 10:30:00	0:15:00		2,370.85	592.71	22.96	5.74	
		1991.12.13 10:45:00	0:15:00		1,841.83	460.46	13.82	3.46	
		1991.12.13 11:00:00	0:15:00		1,310.34	327.58	88.38	22.09	
		1991.12.13 11:15:00	0:15:00		1,009.41	252.35	141.45	35.36	
		1991.12.13 11:30:00	0:15:00		733.18	183.29	117.01	29.25	
		1991.12.13 11:45:00	0:15:00	2:30:00	560.13	140.03	34.81	8.70	129.97
20-Dec	No Mirror	1991.12.20 08:45:00	0:15:00		5,581.77	1,395.44	5.68	1.42	
		1991.12.20 09:00:00	0:15:00		5,753.58	1,438.40	11.85	2.96	
		1991.12.20 09:45:00	0:15:00		4,973.01	1,243.25	15.55	3.89	
		1991.12.20 10:00:00	0:15:00		4,011.98	1,003.00	26.17	6.54	
		1991.12.20 10:15:00	0:15:00		3,263.75	815.94	26.91	6.73	
		1991.12.20 10:30:00	0:15:00		2,577.23	644.31	22.46	5.62	
		1991.12.20 10:45:00	0:15:00		2,028.95	507.24	14.81	3.70	
		1991.12.20 11:00:00	0:15:00		1,484.13	371.03	49.87	12.47	
		1991.12.20 11:15:00	0:15:00		1,133.58	283.40	134.05	33.51	
		1991.12.20 11:30:00	0:15:00		847.23	211.81	135.03	33.76	
		1991.12.20 11:45:00	0:15:00	2:45:00	663.07	165.77	52.33	13.08	123.68
							499,545.90	124,807.66	



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

EXHIBIT D.2

1979 Mission Street - NORTHEAST BART PLAZA 'A'

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	1991.06.21 06:46:48	0:06:36	5,821.22	640.34	0.00	0.00	0.00	0.00
172	1991.06.21 07:00:00	0:13:48	5,821.22	1,338.88	0.00	0.00	0.00	0.00
172	1991.06.21 07:15:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
172	1991.06.21 07:30:00	0:15:00	5,286.52	1,321.63	534.70	133.68	0.00	0.00
172	1991.06.21 07:45:00	0:15:00	4,514.59	1,128.65	1,278.74	319.69	27.90	6.97
172	1991.06.21 08:00:00	0:15:00	3,853.50	963.37	1,890.21	472.55	77.51	19.38
172	1991.06.21 08:15:00	0:15:00	3,339.78	834.95	2,426.89	606.72	54.56	13.64
172	1991.06.21 08:30:00	0:15:00	2,925.05	731.26	2,891.48	722.87	4.69	1.17
172	1991.06.21 08:45:00	0:15:00	2,607.59	651.90	3,213.63	803.41	0.00	0.00
172	1991.06.21 09:00:00	0:15:00	2,334.07	583.52	3,487.16	871.79	0.00	0.00
172	1991.06.21 09:15:00	0:15:00	2,090.42	522.60	3,726.12	931.53	4.69	1.17
172	1991.06.21 09:30:00	0:15:00	1,874.66	468.67	3,647.12	911.78	299.44	74.86
172	1991.06.21 09:45:00	0:15:00	1,669.03	417.26	2,978.13	744.53	1,174.07	293.52
172	1991.06.21 10:00:00	0:15:00	1,484.13	371.03	2,547.36	636.84	1,789.74	447.44
172	1991.06.21 10:15:00	0:15:00	1,315.27	328.82	2,184.22	546.06	2,321.73	580.43
172	1991.06.21 10:30:00	0:15:00	1,160.00	290.00	1,871.45	467.86	2,789.77	697.44
172	1991.06.21 10:45:00	0:15:00	1,014.84	253.71	1,584.85	396.21	3,221.53	805.38
172	1991.06.21 11:00:00	0:15:00	879.57	219.89	1,332.31	333.08	3,609.35	902.34
172	1991.06.21 11:15:00	0:15:00	750.46	187.61	1,094.58	273.65	3,976.19	994.05
172	1991.06.21 11:30:00	0:15:00	629.25	157.31	882.53	220.63	4,309.45	1,077.36
172	1991.06.21 11:45:00	0:15:00	511.50	127.87	675.66	168.91	4,634.07	1,158.52
172	1991.06.21 12:00:00	0:15:00	399.91	99.98	491.01	122.75	4,930.30	1,232.58
172	1991.06.21 12:15:00	0:15:00	287.35	71.84	307.34	76.84	5,226.54	1,306.63
172	1991.06.21 12:30:00	0:15:00	183.91	45.98	236.99	59.25	5,400.33	1,350.08
172	1991.06.21 12:45:00	0:15:00	77.76	19.44	82.95	20.74	5,660.52	1,415.13
172	1991.06.21 13:00:00	0:15:00	0.99	0.25	28.88	7.22	5,791.35	1,447.84
172	1991.06.21 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 16:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 17:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
172	1991.06.21 17:15:00	0:15:00	5.18	1.30	0.49	0.12	5,815.55	1,453.89
172	1991.06.21 17:30:00	0:15:00	369.30	92.33	44.19	11.05	5,407.73	1,351.93
172	1991.06.21 17:45:00	0:15:00	729.97	182.49	111.58	27.90	4,979.68	1,244.92
172	1991.06.21 18:00:00	0:15:00	1,061.50	265.38	209.34	52.33	4,550.38	1,137.60
172	1991.06.21 18:15:00	0:15:00	1,354.53	338.63	280.68	70.17	4,186.02	1,046.50
172	1991.06.21 18:30:00	0:15:00	1,531.03	382.76	374.49	93.62	3,915.71	978.93
172	1991.06.21 18:45:00	0:15:00	1,553.50	388.37	329.07	82.27	3,938.66	984.67
172	1991.06.21 19:00:00	0:15:00	1,961.56	490.39	217.24	54.31	3,642.43	910.61
172	1991.06.21 19:15:00	0:18:00	2,853.22	855.97	129.60	38.88	2,838.41	851.52

EXHIBIT D.2

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	1991.06.21 19:36:00	0:10:48	5,670.64	1,020.72	0.00	0.00	150.59	27.11
179	1991.06.28 06:48:35	0:06:00	5,821.22	582.12	0.00	0.00	0.00	0.00
179	1991.06.28 07:00:00	0:13:12	5,821.22	1,280.67	0.00	0.00	0.00	0.00
179	1991.06.28 07:15:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
179	1991.06.28 07:30:00	0:15:00	5,388.97	1,347.24	432.25	108.06	0.00	0.00
179	1991.06.28 07:45:00	0:15:00	4,615.31	1,153.83	1,188.63	297.16	17.28	4.32
179	1991.06.28 08:00:00	0:15:00	3,932.00	983.00	1,816.90	454.22	72.33	18.08
179	1991.06.28 08:15:00	0:15:00	3,399.52	849.88	2,367.15	591.79	54.56	13.64
179	1991.06.28 08:30:00	0:15:00	2,971.46	742.87	2,844.58	711.14	5.18	1.30
179	1991.06.28 08:45:00	0:15:00	2,648.57	662.14	3,172.65	793.16	0.00	0.00
179	1991.06.28 09:00:00	0:15:00	2,364.68	591.17	3,456.54	864.14	0.00	0.00
179	1991.06.28 09:15:00	0:15:00	2,120.04	530.01	3,697.73	924.43	3.46	0.86
179	1991.06.28 09:30:00	0:15:00	1,902.06	475.52	3,711.30	927.83	207.86	51.96
179	1991.06.28 09:45:00	0:15:00	1,692.97	423.24	3,033.92	758.48	1,094.33	273.58
179	1991.06.28 10:00:00	0:15:00	1,505.60	376.40	2,586.11	646.53	1,729.51	432.38
179	1991.06.28 10:15:00	0:15:00	1,333.30	333.32	2,219.03	554.76	2,268.90	567.22
179	1991.06.28 10:30:00	0:15:00	1,177.03	294.26	1,901.57	475.39	2,742.62	685.66
179	1991.06.28 10:45:00	0:15:00	1,030.64	257.66	1,612.25	403.06	3,178.33	794.58
179	1991.06.28 11:00:00	0:15:00	893.64	223.41	1,357.24	339.31	3,570.35	892.59
179	1991.06.28 11:15:00	0:15:00	763.79	190.95	1,117.05	279.26	3,940.39	985.10
179	1991.06.28 11:30:00	0:15:00	642.58	160.65	902.03	225.51	4,276.62	1,069.15
179	1991.06.28 11:45:00	0:15:00	522.85	130.71	696.64	174.16	4,601.73	1,150.43
179	1991.06.28 12:00:00	0:15:00	412.50	103.13	510.01	127.50	4,898.70	1,224.68
179	1991.06.28 12:15:00	0:15:00	299.20	74.80	324.87	81.22	5,197.16	1,299.29
179	1991.06.28 12:30:00	0:15:00	195.02	48.76	244.89	61.22	5,381.32	1,345.33
179	1991.06.28 12:45:00	0:15:00	87.64	21.91	89.12	22.28	5,644.47	1,411.12
179	1991.06.28 13:00:00	0:15:00	5.18	1.30	34.07	8.52	5,781.97	1,445.49
179	1991.06.28 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 16:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 17:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
179	1991.06.28 17:15:00	0:15:00	0.00	0.00	0.49	0.12	5,820.73	1,455.18
179	1991.06.28 17:30:00	0:15:00	350.05	87.51	32.59	8.15	5,438.59	1,359.65
179	1991.06.28 17:45:00	0:15:00	712.69	178.17	100.47	25.12	5,008.06	1,252.02
179	1991.06.28 18:00:00	0:15:00	1,056.56	264.14	191.07	47.77	4,573.59	1,143.40
179	1991.06.28 18:15:00	0:15:00	1,356.99	339.25	261.18	65.30	4,203.05	1,050.76
179	1991.06.28 18:30:00	0:15:00	1,534.73	383.68	373.50	93.38	3,912.99	978.25
179	1991.06.28 18:45:00	0:15:00	1,594.23	398.56	330.79	82.70	3,896.20	974.05
179	1991.06.28 19:00:00	0:15:00	1,956.62	489.16	223.66	55.91	3,640.95	910.24
179	1991.06.28 19:15:00	0:18:00	2,791.50	837.45	129.11	38.73	2,900.61	870.18
179	1991.06.28 19:36:36	0:10:48	5,682.98	1,022.94	0.00	0.00	138.24	24.88
186	1991.07.05 06:52:12	0:03:36	5,821.22	349.27	0.00	0.00	0.00	0.00
186	1991.07.05 07:00:00	0:11:24	5,821.22	1,106.03	0.00	0.00	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
186	1991.07.05 07:15:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
186	1991.07.05 07:30:00	0:15:00	5,544.00	1,386.00	277.23	69.31	0.00	0.00
186	1991.07.05 07:45:00	0:15:00	4,760.71	1,190.18	1,060.27	265.07	0.25	0.06
186	1991.07.05 08:00:00	0:15:00	4,041.11	1,010.28	1,721.61	430.40	58.51	14.63
186	1991.07.05 08:15:00	0:15:00	3,482.46	870.62	2,293.83	573.46	44.93	11.23
186	1991.07.05 08:30:00	0:15:00	3,039.60	759.90	2,780.39	695.10	1.23	0.31
186	1991.07.05 08:45:00	0:15:00	2,698.93	674.73	3,122.30	780.57	0.00	0.00
186	1991.07.05 09:00:00	0:15:00	2,414.05	603.51	3,407.17	851.79	0.00	0.00
186	1991.07.05 09:15:00	0:15:00	2,159.29	539.82	3,650.33	912.58	11.60	2.90
186	1991.07.05 09:30:00	0:15:00	1,930.95	482.74	3,721.67	930.42	168.61	42.15
186	1991.07.05 09:45:00	0:15:00	1,720.87	430.22	3,095.88	773.97	1,004.48	251.12
186	1991.07.05 10:00:00	0:15:00	1,530.04	382.51	2,621.66	655.42	1,669.52	417.38
186	1991.07.05 10:15:00	0:15:00	1,355.51	338.88	2,249.89	562.47	2,215.82	553.96
186	1991.07.05 10:30:00	0:15:00	1,196.04	299.01	1,928.23	482.06	2,696.95	674.24
186	1991.07.05 10:45:00	0:15:00	1,047.18	261.80	1,637.43	409.36	3,136.61	784.15
186	1991.07.05 11:00:00	0:15:00	909.93	227.48	1,379.46	344.86	3,531.84	882.96
186	1991.07.05 11:15:00	0:15:00	778.11	194.53	1,137.53	284.38	3,905.58	976.40
186	1991.07.05 11:30:00	0:15:00	655.66	163.92	921.78	230.44	4,243.78	1,060.95
186	1991.07.05 11:45:00	0:15:00	535.69	133.92	712.69	178.17	4,572.85	1,143.21
186	1991.07.05 12:00:00	0:15:00	422.87	105.72	527.54	131.89	4,870.81	1,217.70
186	1991.07.05 12:15:00	0:15:00	310.06	77.51	341.66	85.41	5,169.51	1,292.38
186	1991.07.05 12:30:00	0:15:00	205.64	51.41	241.92	60.48	5,373.66	1,343.42
186	1991.07.05 12:45:00	0:15:00	97.51	24.38	94.55	23.64	5,629.17	1,407.29
186	1991.07.05 13:00:00	0:15:00	10.62	2.65	39.00	9.75	5,771.60	1,442.90
186	1991.07.05 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 16:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 17:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 17:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
186	1991.07.05 17:30:00	0:15:00	363.38	90.85	11.85	2.96	5,446.00	1,361.50
186	1991.07.05 17:45:00	0:15:00	738.61	184.65	74.80	18.70	5,007.82	1,251.95
186	1991.07.05 18:00:00	0:15:00	1,098.04	274.51	160.95	40.24	4,562.23	1,140.56
186	1991.07.05 18:15:00	0:15:00	1,421.42	355.36	226.37	56.59	4,173.43	1,043.36
186	1991.07.05 18:30:00	0:15:00	1,631.26	407.81	340.67	85.17	3,849.30	962.33
186	1991.07.05 18:45:00	0:15:00	1,697.17	424.29	321.91	80.48	3,802.15	950.54
186	1991.07.05 19:00:00	0:15:00	2,047.46	511.87	222.18	55.54	3,551.59	887.90
186	1991.07.05 19:15:00	0:18:00	2,858.15	857.45	130.84	39.25	2,832.23	849.67
186	1991.07.05 19:36:00	0:10:48	5,672.61	1,021.07	0.00	0.00	148.61	26.75
193	1991.07.12 06:56:24	0:01:48	5,821.22	174.64	0.00	0.00	0.00	0.00
193	1991.07.12 07:00:00	0:09:00	5,821.22	873.18	0.00	0.00	0.00	0.00
193	1991.07.12 07:15:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
193	1991.07.12 07:30:00	0:15:00	5,762.22	1,440.56	59.00	14.75	0.00	0.00
193	1991.07.12 07:45:00	0:15:00	4,932.52	1,233.13	888.70	222.18	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
193	1991.07.12 08:00:00	0:15:00	4,176.88	1,044.22	1,604.84	401.21	39.50	9.87
193	1991.07.12 08:15:00	0:15:00	3,587.38	896.85	2,205.45	551.36	28.39	7.10
193	1991.07.12 08:30:00	0:15:00	3,125.75	781.44	2,695.47	673.87	0.00	0.00
193	1991.07.12 08:45:00	0:15:00	2,772.49	693.12	3,048.73	762.18	0.00	0.00
193	1991.07.12 09:00:00	0:15:00	2,473.30	618.32	3,347.93	836.98	0.00	0.00
193	1991.07.12 09:15:00	0:15:00	2,212.12	553.03	3,562.45	890.61	46.66	11.66
193	1991.07.12 09:30:00	0:15:00	1,971.92	492.98	3,651.07	912.77	198.23	49.56
193	1991.07.12 09:45:00	0:15:00	1,752.96	438.24	3,160.31	790.08	907.95	226.99
193	1991.07.12 10:00:00	0:15:00	1,558.43	389.61	2,650.54	662.64	1,612.25	403.06
193	1991.07.12 10:15:00	0:15:00	1,379.71	344.93	2,273.09	568.27	2,168.43	542.11
193	1991.07.12 10:30:00	0:15:00	1,217.27	304.32	1,948.47	487.12	2,655.48	663.87
193	1991.07.12 10:45:00	0:15:00	1,065.70	266.42	1,653.97	413.49	3,101.56	775.39
193	1991.07.12 11:00:00	0:15:00	925.98	231.49	1,394.76	348.69	3,500.49	875.12
193	1991.07.12 11:15:00	0:15:00	792.42	198.11	1,151.36	287.84	3,877.44	969.36
193	1991.07.12 11:30:00	0:15:00	669.73	167.43	934.62	233.65	4,216.88	1,054.22
193	1991.07.12 11:45:00	0:15:00	547.29	136.82	727.01	181.75	4,546.93	1,136.73
193	1991.07.12 12:00:00	0:15:00	434.72	108.68	539.64	134.91	4,846.86	1,211.72
193	1991.07.12 12:15:00	0:15:00	319.44	79.86	357.70	89.43	5,144.08	1,286.02
193	1991.07.12 12:30:00	0:15:00	213.54	53.38	239.21	59.80	5,368.48	1,342.12
193	1991.07.12 12:45:00	0:15:00	105.41	26.35	99.24	24.81	5,616.58	1,404.14
193	1991.07.12 13:00:00	0:15:00	14.07	3.52	42.95	10.74	5,764.20	1,441.05
193	1991.07.12 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 16:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 17:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
193	1991.07.12 17:15:00	0:15:00	9.63	2.41	0.00	0.00	5,811.60	1,452.90
193	1991.07.12 17:30:00	0:15:00	412.75	103.19	2.22	0.56	5,406.25	1,351.56
193	1991.07.12 17:45:00	0:15:00	810.69	202.67	37.03	9.26	4,973.50	1,243.38
193	1991.07.12 18:00:00	0:15:00	1,197.77	299.44	115.04	28.76	4,508.42	1,127.10
193	1991.07.12 18:15:00	0:15:00	1,552.26	388.07	181.69	45.42	4,087.27	1,021.82
193	1991.07.12 18:30:00	0:15:00	1,799.62	449.90	293.02	73.26	3,728.58	932.15
193	1991.07.12 18:45:00	0:15:00	1,892.43	473.11	302.16	75.54	3,626.63	906.66
193	1991.07.12 19:00:00	0:15:00	2,260.26	565.06	203.41	50.85	3,357.55	839.39
193	1991.07.12 19:15:00	0:16:48	3,080.82	862.63	127.63	35.74	2,612.77	731.58
193	1991.07.12 19:33:36	0:09:00	5,635.58	845.34	0.00	0.00	185.64	27.85
200	1991.07.19 07:01:11	0:07:48	5,821.22	756.76	0.00	0.00	0.00	0.00
200	1991.07.19 07:16:11	0:14:24	5,821.22	1,397.09	0.00	0.00	0.00	0.00
200	1991.07.19 07:30:00	0:14:24	5,821.22	1,397.09	0.00	0.00	0.00	0.00
200	1991.07.19 07:45:00	0:15:00	5,144.08	1,286.02	677.14	169.29	0.00	0.00
200	1991.07.19 08:00:00	0:15:00	4,358.82	1,089.71	1,444.63	361.16	17.77	4.44
200	1991.07.19 08:15:00	0:15:00	3,715.50	928.88	2,099.06	524.76	6.67	1.67
200	1991.07.19 08:30:00	0:15:00	3,236.84	809.21	2,584.39	646.10	0.00	0.00
200	1991.07.19 08:45:00	0:15:00	2,860.62	715.16	2,960.60	740.15	0.00	0.00

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
200	1991.07.19 09:00:00	0:15:00	2,542.42	635.61	3,278.80	819.70	0.00	0.00
200	1991.07.19 09:15:00	0:15:00	2,269.39	567.35	3,447.41	861.85	104.42	26.11
200	1991.07.19 09:30:00	0:15:00	2,015.37	503.84	3,539.74	884.93	266.12	66.53
200	1991.07.19 09:45:00	0:15:00	1,786.78	446.69	3,214.13	803.53	820.32	205.08
200	1991.07.19 10:00:00	0:15:00	1,586.57	396.64	2,666.84	666.71	1,567.81	391.95
200	1991.07.19 10:15:00	0:15:00	1,404.88	351.22	2,285.93	571.48	2,130.41	532.60
200	1991.07.19 10:30:00	0:15:00	1,238.50	309.63	1,958.59	489.65	2,624.13	656.03
200	1991.07.19 10:45:00	0:15:00	1,083.97	270.99	1,663.59	415.90	3,073.66	768.42
200	1991.07.19 11:00:00	0:15:00	941.77	235.44	1,403.40	350.85	3,476.05	869.01
200	1991.07.19 11:15:00	0:15:00	805.75	201.44	1,159.75	289.94	3,855.72	963.93
200	1991.07.19 11:30:00	0:15:00	680.10	170.03	943.26	235.81	4,197.87	1,049.47
200	1991.07.19 11:45:00	0:15:00	557.66	139.42	734.90	183.73	4,528.66	1,132.17
200	1991.07.19 12:00:00	0:15:00	442.13	110.53	549.51	137.38	4,829.58	1,207.40
200	1991.07.19 12:15:00	0:15:00	327.34	81.83	366.84	91.71	5,127.05	1,281.76
200	1991.07.19 12:30:00	0:15:00	219.95	54.99	236.25	59.06	5,365.02	1,341.26
200	1991.07.19 12:45:00	0:15:00	110.35	27.59	102.20	25.55	5,608.68	1,402.17
200	1991.07.19 13:00:00	0:15:00	16.54	4.14	45.18	11.29	5,759.51	1,439.88
200	1991.07.19 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 16:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 17:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
200	1991.07.19 17:15:00	0:15:00	67.89	16.97	0.00	0.00	5,753.34	1,438.33
200	1991.07.19 17:30:00	0:15:00	511.74	127.94	0.00	0.00	5,309.48	1,327.37
200	1991.07.19 17:45:00	0:15:00	941.28	235.32	11.85	2.96	4,868.09	1,217.02
200	1991.07.19 18:00:00	0:15:00	1,362.18	340.54	69.37	17.34	4,389.68	1,097.42
200	1991.07.19 18:15:00	0:15:00	1,766.04	441.51	134.05	33.51	3,921.14	980.28
200	1991.07.19 18:30:00	0:15:00	2,060.05	515.01	236.49	59.12	3,524.68	881.17
200	1991.07.19 18:45:00	0:15:00	2,175.34	543.83	278.71	69.68	3,367.18	841.80
200	1991.07.19 19:00:00	0:15:00	2,581.67	645.42	173.05	43.26	3,066.50	766.63
200	1991.07.19 19:15:00	0:15:00	3,489.87	872.47	130.10	32.52	2,201.26	550.31
200	1991.07.19 19:30:00	0:07:48	5,614.11	729.83	0.49	0.06	206.62	26.86
207	1991.07.26 07:07:12	0:03:36	5,821.22	349.27	0.00	0.00	0.00	0.00
207	1991.07.26 07:15:00	0:11:24	5,821.22	1,106.03	0.00	0.00	0.00	0.00
207	1991.07.26 07:30:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
207	1991.07.26 07:45:00	0:15:00	5,418.10	1,354.53	403.12	100.78	0.00	0.00
207	1991.07.26 08:00:00	0:15:00	4,566.43	1,141.61	1,252.32	313.08	2.47	0.62
207	1991.07.26 08:15:00	0:15:00	3,865.84	966.46	1,955.38	488.85	0.00	0.00
207	1991.07.26 08:30:00	0:15:00	3,371.62	842.91	2,449.60	612.40	0.00	0.00
207	1991.07.26 08:45:00	0:15:00	2,962.33	740.58	2,858.89	714.72	0.00	0.00
207	1991.07.26 09:00:00	0:15:00	2,625.86	656.46	3,148.71	787.18	46.66	11.66
207	1991.07.26 09:15:00	0:15:00	2,324.44	581.11	3,301.27	825.32	195.51	48.88
207	1991.07.26 09:30:00	0:15:00	2,058.33	514.58	3,403.72	850.93	359.18	89.80
207	1991.07.26 09:45:00	0:15:00	1,824.80	456.20	3,244.00	811.00	752.43	188.11

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
207	1991.07.26 10:00:00	0:15:00	1,616.69	404.17	2,679.18	669.80	1,525.35	381.34
207	1991.07.26 10:15:00	0:15:00	1,429.57	357.39	2,290.87	572.72	2,100.79	525.20
207	1991.07.26 10:30:00	0:15:00	1,259.48	314.87	1,960.57	490.14	2,601.17	650.29
207	1991.07.26 10:45:00	0:15:00	1,103.22	275.81	1,661.37	415.34	3,056.63	764.16
207	1991.07.26 11:00:00	0:15:00	957.57	239.39	1,404.88	351.22	3,458.77	864.69
207	1991.07.26 11:15:00	0:15:00	819.33	204.83	1,159.51	289.88	3,842.39	960.60
207	1991.07.26 11:30:00	0:15:00	691.95	172.99	943.75	235.94	4,185.52	1,046.38
207	1991.07.26 11:45:00	0:15:00	567.04	141.76	736.88	184.22	4,517.31	1,129.33
207	1991.07.26 12:00:00	0:15:00	450.27	112.57	554.45	138.61	4,816.50	1,204.13
207	1991.07.26 12:15:00	0:15:00	333.02	83.25	372.02	93.01	5,116.19	1,279.05
207	1991.07.26 12:30:00	0:15:00	224.64	56.16	233.04	58.26	5,363.54	1,340.89
207	1991.07.26 12:45:00	0:15:00	114.05	28.51	104.18	26.04	5,603.00	1,400.75
207	1991.07.26 13:00:00	0:15:00	18.02	4.51	46.16	11.54	5,757.04	1,439.26
207	1991.07.26 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 16:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 17:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
207	1991.07.26 17:15:00	0:15:00	192.55	48.14	0.00	0.00	5,628.67	1,407.17
207	1991.07.26 17:30:00	0:15:00	668.99	167.25	0.00	0.00	5,152.23	1,288.06
207	1991.07.26 17:45:00	0:15:00	1,139.02	284.75	0.00	0.00	4,682.21	1,170.55
207	1991.07.26 18:00:00	0:15:00	1,617.68	404.42	23.45	5.86	4,180.09	1,045.02
207	1991.07.26 18:15:00	0:15:00	2,080.54	520.14	81.46	20.37	3,659.22	914.80
207	1991.07.26 18:30:00	0:15:00	2,437.26	609.31	175.02	43.76	3,208.94	802.24
207	1991.07.26 18:45:00	0:15:00	2,540.44	635.11	242.66	60.67	3,038.12	759.53
207	1991.07.26 19:00:00	0:15:00	3,015.16	753.79	132.32	33.08	2,673.75	668.44
207	1991.07.26 19:15:00	0:12:36	4,114.68	864.08	75.79	15.92	1,630.76	342.46
207	1991.07.26 19:25:12	0:05:24	5,603.74	504.34	0.74	0.07	216.74	19.51
214	1991.08.02 07:12:36	0:01:12	5,821.22	116.42	0.00	0.00	0.00	0.00
214	1991.08.02 07:15:00	0:09:00	5,821.22	873.18	0.00	0.00	0.00	0.00
214	1991.08.02 07:30:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
214	1991.08.02 07:45:00	0:15:00	5,749.88	1,437.47	71.34	17.84	0.00	0.00
214	1991.08.02 08:00:00	0:15:00	4,800.45	1,200.11	1,020.77	255.19	0.00	0.00
214	1991.08.02 08:15:00	0:15:00	4,052.96	1,013.24	1,768.26	442.07	0.00	0.00
214	1991.08.02 08:30:00	0:15:00	3,513.08	878.27	2,308.15	577.04	0.00	0.00
214	1991.08.02 08:45:00	0:15:00	3,073.66	768.42	2,731.51	682.88	16.05	4.01
214	1991.08.02 09:00:00	0:15:00	2,706.83	676.71	2,969.49	742.37	144.91	36.23
214	1991.08.02 09:15:00	0:15:00	2,379.49	594.87	3,136.86	784.22	304.87	76.22
214	1991.08.02 09:30:00	0:15:00	2,101.53	525.38	3,243.75	810.94	475.95	118.99
214	1991.08.02 09:45:00	0:15:00	1,858.37	464.59	3,220.55	805.14	742.31	185.58
214	1991.08.02 10:00:00	0:15:00	1,644.83	411.21	2,663.63	665.91	1,512.76	378.19
214	1991.08.02 10:15:00	0:15:00	1,452.53	363.13	2,274.33	568.58	2,094.37	523.59
214	1991.08.02 10:30:00	0:15:00	1,278.49	319.62	1,946.00	486.50	2,596.73	649.18
214	1991.08.02 10:45:00	0:15:00	1,117.79	279.45	1,648.54	412.13	3,054.90	763.73

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
214	1991.08.02 11:00:00	0:15:00	968.19	242.05	1,390.57	347.64	3,462.47	865.62
214	1991.08.02 11:15:00	0:15:00	827.72	206.93	1,150.62	287.65	3,842.88	960.72
214	1991.08.02 11:30:00	0:15:00	697.88	174.47	935.36	233.84	4,187.99	1,047.00
214	1991.08.02 11:45:00	0:15:00	571.73	142.93	728.98	182.25	4,520.51	1,130.13
214	1991.08.02 12:00:00	0:15:00	452.74	113.19	549.02	137.26	4,819.46	1,204.87
214	1991.08.02 12:15:00	0:15:00	334.00	83.50	371.28	92.82	5,115.94	1,278.99
214	1991.08.02 12:30:00	0:15:00	224.64	56.16	229.33	57.33	5,367.25	1,341.81
214	1991.08.02 12:45:00	0:15:00	112.82	28.20	103.19	25.80	5,605.22	1,401.31
214	1991.08.02 13:00:00	0:15:00	16.05	4.01	44.68	11.17	5,760.50	1,440.12
214	1991.08.02 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 16:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 17:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
214	1991.08.02 17:15:00	0:15:00	382.63	95.66	0.00	0.00	5,438.59	1,359.65
214	1991.08.02 17:30:00	0:15:00	897.59	224.40	0.00	0.00	4,923.64	1,230.91
214	1991.08.02 17:45:00	0:15:00	1,433.03	358.26	0.00	0.00	4,388.20	1,097.05
214	1991.08.02 18:00:00	0:15:00	1,986.24	496.56	0.00	0.00	3,834.98	958.75
214	1991.08.02 18:15:00	0:15:00	2,536.00	634.00	28.64	7.16	3,256.59	814.15
214	1991.08.02 18:30:00	0:15:00	2,915.67	728.92	108.13	27.03	2,797.43	699.36
214	1991.08.02 18:45:00	0:15:00	2,985.29	746.32	197.49	49.37	2,638.45	659.61
214	1991.08.02 19:00:00	0:15:00	3,548.62	887.16	120.47	30.12	2,152.13	538.03
214	1991.08.02 19:15:00	0:09:00	5,014.48	752.17	17.53	2.63	789.21	118.38
214	1991.08.02 19:18:36	0:01:48	5,559.06	166.77	2.96	0.09	259.20	7.78
221	1991.08.09 07:19:12	0:05:24	5,821.22	523.91	0.00	0.00	0.00	0.00
221	1991.08.09 07:30:00	0:12:36	5,821.22	1,222.46	0.00	0.00	0.00	0.00
221	1991.08.09 07:45:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
221	1991.08.09 08:00:00	0:15:00	5,099.65	1,274.91	721.57	180.39	0.00	0.00
221	1991.08.09 08:15:00	0:15:00	4,277.36	1,069.34	1,543.87	385.97	0.00	0.00
221	1991.08.09 08:30:00	0:15:00	3,679.21	919.80	2,139.30	534.82	2.72	0.68
221	1991.08.09 08:45:00	0:15:00	3,186.23	796.56	2,517.73	629.43	117.26	29.32
221	1991.08.09 09:00:00	0:15:00	2,777.43	694.36	2,777.68	694.42	266.12	66.53
221	1991.08.09 09:15:00	0:15:00	2,433.55	608.39	2,953.69	738.42	433.98	108.50
221	1991.08.09 09:30:00	0:15:00	2,144.73	536.18	3,063.79	765.95	612.71	153.18
221	1991.08.09 09:45:00	0:15:00	1,892.93	473.23	3,086.75	771.69	841.55	210.39
221	1991.08.09 10:00:00	0:15:00	1,672.73	418.18	2,625.86	656.46	1,522.64	380.66
221	1991.08.09 10:15:00	0:15:00	1,473.27	368.32	2,238.29	559.57	2,109.67	527.42
221	1991.08.09 10:30:00	0:15:00	1,294.79	323.70	1,913.42	478.35	2,613.02	653.26
221	1991.08.09 10:45:00	0:15:00	1,129.14	282.29	1,616.69	404.17	3,075.39	768.85
221	1991.08.09 11:00:00	0:15:00	978.56	244.64	1,361.19	340.30	3,481.48	870.37
221	1991.08.09 11:15:00	0:15:00	835.87	208.97	1,122.48	280.62	3,862.88	965.72
221	1991.08.09 11:30:00	0:15:00	703.55	175.89	912.40	228.10	4,205.27	1,051.32
221	1991.08.09 11:45:00	0:15:00	574.94	143.74	711.45	177.86	4,534.83	1,133.71
221	1991.08.09 12:00:00	0:15:00	453.24	113.31	536.68	134.17	4,831.31	1,207.83

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
221	1991.08.09 12:15:00	0:15:00	333.26	83.32	363.87	90.97	5,124.09	1,281.02
221	1991.08.09 12:30:00	0:15:00	220.94	55.24	226.37	56.59	5,373.91	1,343.48
221	1991.08.09 12:45:00	0:15:00	108.37	27.09	100.72	25.18	5,612.13	1,403.03
221	1991.08.09 13:00:00	0:15:00	12.59	3.15	40.49	10.12	5,768.15	1,442.04
221	1991.08.09 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 16:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
221	1991.08.09 17:00:00	0:15:00	66.90	16.73	0.00	0.00	5,754.32	1,438.58
221	1991.08.09 17:15:00	0:15:00	647.52	161.88	0.00	0.00	5,173.71	1,293.43
221	1991.08.09 17:30:00	0:15:00	1,223.44	305.86	0.00	0.00	4,597.78	1,149.45
221	1991.08.09 17:45:00	0:15:00	1,847.75	461.94	0.00	0.00	3,973.47	993.37
221	1991.08.09 18:00:00	0:15:00	2,503.42	625.85	0.00	0.00	3,317.81	829.45
221	1991.08.09 18:15:00	0:15:00	3,175.62	793.90	0.00	0.00	2,645.61	661.40
221	1991.08.09 18:30:00	0:15:00	3,372.36	843.09	51.59	12.90	2,397.27	599.32
221	1991.08.09 18:45:00	0:20:24	3,508.14	1,192.77	135.53	46.08	2,177.56	740.37
221	1991.08.09 19:10:48	0:12:36	5,569.92	1,169.68	3.95	0.83	247.35	51.94
228	1991.08.16 07:25:12	0:02:24	5,821.22	232.85	0.00	0.00	0.00	0.00
228	1991.08.16 07:30:00	0:10:12	5,821.22	989.61	0.00	0.00	0.00	0.00
228	1991.08.16 07:45:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
228	1991.08.16 08:00:00	0:15:00	5,465.50	1,366.37	355.73	88.93	0.00	0.00
228	1991.08.16 08:15:00	0:15:00	4,543.47	1,135.87	1,277.75	319.44	0.00	0.00
228	1991.08.16 08:30:00	0:15:00	3,842.14	960.54	1,882.56	470.64	96.52	24.13
228	1991.08.16 08:45:00	0:15:00	3,286.21	821.55	2,291.86	572.96	243.16	60.79
228	1991.08.16 09:00:00	0:15:00	2,847.54	711.89	2,573.28	643.32	400.41	100.10
228	1991.08.16 09:15:00	0:15:00	2,490.33	622.58	2,751.76	687.94	579.14	144.78
228	1991.08.16 09:30:00	0:15:00	2,187.43	546.86	2,867.78	716.95	766.01	191.50
228	1991.08.16 09:45:00	0:15:00	1,927.74	481.93	2,904.81	726.20	988.68	247.17
228	1991.08.16 10:00:00	0:15:00	1,696.67	424.17	2,566.86	641.71	1,557.69	389.42
228	1991.08.16 10:15:00	0:15:00	1,492.77	373.19	2,174.10	543.53	2,154.35	538.59
228	1991.08.16 10:30:00	0:15:00	1,309.84	327.46	1,855.16	463.79	2,656.22	664.06
228	1991.08.16 10:45:00	0:15:00	1,141.24	285.31	1,567.07	391.77	3,112.91	778.23
228	1991.08.16 11:00:00	0:15:00	985.96	246.49	1,321.45	330.36	3,513.82	878.45
228	1991.08.16 11:15:00	0:15:00	839.33	209.83	1,085.69	271.42	3,896.20	974.05
228	1991.08.16 11:30:00	0:15:00	705.28	176.32	882.03	220.51	4,233.91	1,058.48
228	1991.08.16 11:45:00	0:15:00	572.96	143.24	688.00	172.00	4,560.26	1,140.07
228	1991.08.16 12:00:00	0:15:00	451.51	112.88	515.94	128.99	4,853.78	1,213.44
228	1991.08.16 12:15:00	0:15:00	330.30	82.58	349.80	87.45	5,141.12	1,285.28
228	1991.08.16 12:30:00	0:15:00	216.00	54.00	222.67	55.67	5,382.55	1,345.64
228	1991.08.16 12:45:00	0:15:00	101.71	25.43	96.77	24.19	5,622.75	1,405.69
228	1991.08.16 13:00:00	0:15:00	7.41	1.85	34.81	8.70	5,779.01	1,444.75
228	1991.08.16 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
228	1991.08.16 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 16:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
228	1991.08.16 17:00:00	0:15:00	331.04	82.76	0.00	0.00	5,490.18	1,372.55
228	1991.08.16 17:15:00	0:15:00	978.80	244.70	0.00	0.00	4,842.42	1,210.61
228	1991.08.16 17:30:00	0:15:00	1,688.03	422.01	0.00	0.00	4,133.19	1,033.30
228	1991.08.16 17:45:00	0:15:00	2,416.77	604.19	0.00	0.00	3,404.46	851.11
228	1991.08.16 18:00:00	0:15:00	3,224.50	806.12	0.00	0.00	2,596.73	649.18
228	1991.08.16 18:15:00	0:15:00	3,960.14	990.04	0.00	0.00	1,861.08	465.27
228	1991.08.16 18:30:00	0:15:00	3,880.16	970.04	14.57	3.64	1,926.50	481.63
228	1991.08.16 18:45:00	0:16:12	4,114.18	1,110.83	88.38	23.86	1,618.67	437.04
228	1991.08.16 19:02:23	0:08:24	5,536.59	775.12	8.64	1.21	275.99	38.64
235	1991.08.23 07:31:48	0:06:36	5,821.22	640.34	0.00	0.00	0.00	0.00
235	1991.08.23 07:45:00	0:13:48	5,821.22	1,338.88	0.00	0.00	0.00	0.00
235	1991.08.23 08:00:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
235	1991.08.23 08:15:00	0:15:00	4,784.66	1,196.16	948.93	237.23	87.64	21.91
235	1991.08.23 08:30:00	0:15:00	3,976.19	994.05	1,622.62	405.65	222.42	55.61
235	1991.08.23 08:45:00	0:15:00	3,378.29	844.57	2,062.28	515.57	380.66	95.17
235	1991.08.23 09:00:00	0:15:00	2,914.44	728.61	2,357.27	589.32	549.51	137.38
235	1991.08.23 09:15:00	0:15:00	2,539.95	634.99	2,541.18	635.30	740.09	185.02
235	1991.08.23 09:30:00	0:15:00	2,223.72	555.93	2,653.26	663.32	944.24	236.06
235	1991.08.23 09:45:00	0:15:00	1,953.90	488.48	2,686.59	671.65	1,180.74	295.18
235	1991.08.23 10:00:00	0:15:00	1,718.64	429.66	2,462.93	615.73	1,639.65	409.91
235	1991.08.23 10:15:00	0:15:00	1,507.09	376.77	2,076.59	519.15	2,237.55	559.39
235	1991.08.23 10:30:00	0:15:00	1,320.21	330.05	1,774.93	443.73	2,726.08	681.52
235	1991.08.23 10:45:00	0:15:00	1,146.92	286.73	1,496.47	374.12	3,177.84	794.46
235	1991.08.23 11:00:00	0:15:00	988.43	247.11	1,258.74	314.69	3,574.05	893.51
235	1991.08.23 11:15:00	0:15:00	840.31	210.08	1,035.58	258.90	3,945.33	986.33
235	1991.08.23 11:30:00	0:15:00	701.58	175.40	839.57	209.89	4,280.07	1,070.02
235	1991.08.23 11:45:00	0:15:00	568.77	142.19	650.73	162.68	4,601.73	1,150.43
235	1991.08.23 12:00:00	0:15:00	444.60	111.15	489.28	122.32	4,887.35	1,221.84
235	1991.08.23 12:15:00	0:15:00	321.41	80.35	331.04	82.76	5,168.77	1,292.19
235	1991.08.23 12:30:00	0:15:00	205.88	51.47	216.74	54.19	5,398.60	1,349.65
235	1991.08.23 12:45:00	0:15:00	89.36	22.34	90.35	22.59	5,641.51	1,410.38
235	1991.08.23 13:00:00	0:15:00	1.73	0.43	26.91	6.73	5,792.59	1,448.15
235	1991.08.23 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
235	1991.08.23 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
235	1991.08.23 16:45:00	0:15:00	47.40	11.85	0.00	0.00	5,773.83	1,443.46
235	1991.08.23 17:00:00	0:15:00	632.21	158.05	0.00	0.00	5,189.01	1,297.25
235	1991.08.23 17:15:00	0:15:00	1,379.95	344.99	0.00	0.00	4,441.27	1,110.32
235	1991.08.23 17:30:00	0:15:00	2,258.28	564.57	0.00	0.00	3,562.94	890.74
235	1991.08.23 17:45:00	0:15:00	3,259.80	814.95	0.00	0.00	2,561.43	640.36
235	1991.08.23 18:00:00	0:15:00	4,249.95	1,062.49	0.00	0.00	1,571.27	392.82
235	1991.08.23 18:15:00	0:15:00	4,423.99	1,106.00	0.00	0.00	1,397.23	349.31
235	1991.08.23 18:30:00	0:15:00	4,415.85	1,103.96	0.00	0.00	1,405.38	351.35
235	1991.08.23 18:45:00	0:11:24	4,849.33	921.37	41.47	7.88	930.42	176.78
235	1991.08.23 18:52:48	0:03:36	5,539.56	332.37	12.10	0.73	269.57	16.17
242	1991.08.30 07:37:48	0:03:36	5,821.22	349.27	0.00	0.00	0.00	0.00
242	1991.08.30 07:45:00	0:11:24	5,821.22	1,106.03	0.00	0.00	0.00	0.00
242	1991.08.30 08:00:00	0:15:00	5,731.86	1,432.97	17.28	4.32	72.08	18.02
242	1991.08.30 08:15:00	0:15:00	5,000.16	1,250.04	619.62	154.91	201.44	50.36
242	1991.08.30 08:30:00	0:15:00	4,116.65	1,029.16	1,352.30	338.08	352.27	88.07
242	1991.08.30 08:45:00	0:15:00	3,473.58	868.39	1,816.90	454.22	530.75	132.69
242	1991.08.30 09:00:00	0:15:00	2,979.86	744.96	2,119.05	529.76	722.31	180.58
242	1991.08.30 09:15:00	0:15:00	2,588.09	647.02	2,302.96	575.74	930.17	232.54
242	1991.08.30 09:30:00	0:15:00	2,258.53	564.63	2,417.26	604.32	1,145.43	286.36
242	1991.08.30 09:45:00	0:15:00	1,978.84	494.71	2,449.85	612.46	1,392.54	348.14
242	1991.08.30 10:00:00	0:15:00	1,734.20	433.55	2,320.99	580.25	1,766.04	441.51
242	1991.08.30 10:15:00	0:15:00	1,519.68	379.92	1,955.14	488.78	2,346.41	586.60
242	1991.08.30 10:30:00	0:15:00	1,325.89	331.47	1,672.48	418.12	2,822.85	705.71
242	1991.08.30 10:45:00	0:15:00	1,149.63	287.41	1,408.83	352.21	3,262.76	815.69
242	1991.08.30 11:00:00	0:15:00	988.92	247.23	1,185.67	296.42	3,646.63	911.66
242	1991.08.30 11:15:00	0:15:00	837.85	209.46	972.14	243.03	4,011.24	1,002.81
242	1991.08.30 11:30:00	0:15:00	698.62	174.65	786.50	196.63	4,336.11	1,084.03
242	1991.08.30 11:45:00	0:15:00	562.35	140.59	608.76	152.19	4,650.12	1,162.53
242	1991.08.30 12:00:00	0:15:00	435.46	108.87	456.45	114.11	4,929.32	1,232.33
242	1991.08.30 12:15:00	0:15:00	310.80	77.70	307.84	76.96	5,202.59	1,300.65
242	1991.08.30 12:30:00	0:15:00	192.80	48.20	209.34	52.33	5,419.09	1,354.77
242	1991.08.30 12:45:00	0:15:00	76.03	19.01	81.71	20.43	5,663.48	1,415.87
242	1991.08.30 13:00:00	0:15:00	0.00	0.00	17.28	4.32	5,803.94	1,450.99
242	1991.08.30 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 16:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
242	1991.08.30 16:45:00	0:15:00	330.30	82.58	0.00	0.00	5,490.92	1,372.73
242	1991.08.30 17:00:00	0:15:00	945.72	236.43	0.00	0.00	4,875.50	1,218.88
242	1991.08.30 17:15:00	0:15:00	1,751.23	437.81	0.00	0.00	4,069.99	1,017.50
242	1991.08.30 17:30:00	0:15:00	2,849.02	712.26	0.00	0.00	2,972.20	743.05
242	1991.08.30 17:45:00	0:15:00	4,237.12	1,059.28	0.00	0.00	1,584.11	396.03

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
242	1991.08.30 18:00:00	0:15:00	5,160.62	1,290.16	0.00	0.00	660.60	165.15
242	1991.08.30 18:15:00	0:15:00	4,896.98	1,224.24	0.00	0.00	924.25	231.06
242	1991.08.30 18:30:00	0:13:48	4,979.43	1,145.27	0.00	0.00	841.80	193.61
242	1991.08.30 18:42:36	0:06:36	5,571.15	612.83	1.73	0.19	248.34	27.32
249	1991.09.06 07:44:24	0:07:48	5,734.33	745.46	54.80	7.12	32.09	4.17
249	1991.09.06 08:00:00	0:15:00	5,592.14	1,398.03	64.92	16.23	164.16	41.04
249	1991.09.06 08:15:00	0:15:00	5,218.39	1,304.60	274.26	68.57	328.57	82.14
249	1991.09.06 08:30:00	0:15:00	4,260.08	1,065.02	1,048.42	262.10	512.73	128.18
249	1991.09.06 08:45:00	0:15:00	3,568.37	892.09	1,541.89	385.47	710.96	177.74
249	1991.09.06 09:00:00	0:15:00	3,049.72	762.43	1,860.84	465.21	910.67	227.67
249	1991.09.06 09:15:00	0:15:00	2,633.02	658.25	2,057.34	514.33	1,130.87	282.72
249	1991.09.06 09:30:00	0:15:00	2,290.87	572.72	2,172.13	543.03	1,358.23	339.56
249	1991.09.06 09:45:00	0:15:00	2,001.30	500.33	2,201.26	550.31	1,618.67	404.67
249	1991.09.06 10:00:00	0:15:00	1,750.00	437.50	2,127.94	531.99	1,943.29	485.82
249	1991.09.06 10:15:00	0:15:00	1,528.56	382.14	1,810.97	452.74	2,481.69	620.42
249	1991.09.06 10:30:00	0:15:00	1,331.07	332.77	1,549.05	387.26	2,941.10	735.28
249	1991.09.06 10:45:00	0:15:00	1,151.36	287.84	1,306.39	326.60	3,363.48	840.87
249	1991.09.06 11:00:00	0:15:00	986.95	246.74	1,098.28	274.57	3,735.99	934.00
249	1991.09.06 11:15:00	0:15:00	834.64	208.66	899.31	224.83	4,087.27	1,021.82
249	1991.09.06 11:30:00	0:15:00	692.44	173.11	724.29	181.07	4,404.49	1,101.12
249	1991.09.06 11:45:00	0:15:00	554.45	138.61	559.63	139.91	4,707.14	1,176.79
249	1991.09.06 12:00:00	0:15:00	424.35	106.09	418.43	104.61	4,978.44	1,244.61
249	1991.09.06 12:15:00	0:15:00	297.22	74.31	284.38	71.10	5,239.62	1,309.91
249	1991.09.06 12:30:00	0:15:00	176.26	44.07	199.71	49.93	5,445.25	1,361.31
249	1991.09.06 12:45:00	0:15:00	61.22	15.31	70.85	17.71	5,689.15	1,422.29
249	1991.09.06 13:00:00	0:15:00	0.00	0.00	5.18	1.30	5,816.04	1,454.01
249	1991.09.06 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
249	1991.09.06 16:30:00	0:15:00	95.78	23.95	0.00	0.00	5,725.44	1,431.36
249	1991.09.06 16:45:00	0:15:00	611.23	152.81	0.00	0.00	5,210.00	1,302.50
249	1991.09.06 17:00:00	0:15:00	1,265.90	316.48	0.00	0.00	4,555.32	1,138.83
249	1991.09.06 17:15:00	0:15:00	2,142.75	535.69	0.00	0.00	3,678.47	919.62
249	1991.09.06 17:30:00	0:15:00	3,367.18	841.80	0.00	0.00	2,454.04	613.51
249	1991.09.06 17:45:00	0:15:00	5,076.69	1,269.17	0.00	0.00	744.53	186.13
249	1991.09.06 18:00:00	0:15:00	5,381.32	1,345.33	0.00	0.00	439.91	109.98
249	1991.09.06 18:15:00	0:16:12	5,378.60	1,452.22	0.00	0.00	442.62	119.51
249	1991.09.06 18:31:48	0:08:24	5,649.90	790.99	0.00	0.00	171.32	23.99
256	1991.09.13 07:50:24	0:04:48	5,549.92	443.99	79.98	6.40	191.32	15.31
256	1991.09.13 08:00:00	0:12:36	5,442.79	1,142.99	63.44	13.32	314.99	66.15
256	1991.09.13 08:15:00	0:15:00	5,270.23	1,317.56	55.54	13.89	495.45	123.86
256	1991.09.13 08:30:00	0:15:00	4,403.01	1,100.75	727.50	181.88	690.72	172.68
256	1991.09.13 08:45:00	0:15:00	3,663.66	915.92	1,259.24	314.81	898.33	224.58
256	1991.09.13 09:00:00	0:15:00	3,111.43	777.86	1,600.40	400.10	1,109.39	277.35
256	1991.09.13 09:15:00	0:15:00	2,673.50	668.38	1,807.27	451.82	1,340.45	335.11

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
256	1991.09.13 09:30:00	0:15:00	2,319.01	579.75	1,920.33	480.08	1,581.88	395.47
256	1991.09.13 09:45:00	0:15:00	2,019.81	504.95	1,942.55	485.64	1,858.86	464.72
256	1991.09.13 10:00:00	0:15:00	1,763.33	440.83	1,895.64	473.91	2,162.25	540.56
256	1991.09.13 10:15:00	0:15:00	1,534.73	383.68	1,633.48	408.37	2,653.01	663.25
256	1991.09.13 10:30:00	0:15:00	1,334.53	333.63	1,402.91	350.73	3,083.78	770.95
256	1991.09.13 10:45:00	0:15:00	1,150.87	287.72	1,184.19	296.05	3,486.17	871.54
256	1991.09.13 11:00:00	0:15:00	984.23	246.06	997.32	249.33	3,839.67	959.92
256	1991.09.13 11:15:00	0:15:00	827.72	206.93	815.63	203.91	4,177.87	1,044.47
256	1991.09.13 11:30:00	0:15:00	683.06	170.77	658.38	164.59	4,479.78	1,119.95
256	1991.09.13 11:45:00	0:15:00	544.08	136.02	505.57	126.39	4,771.57	1,192.89
256	1991.09.13 12:00:00	0:15:00	411.27	102.82	377.70	94.42	5,032.26	1,258.06
256	1991.09.13 12:15:00	0:15:00	282.41	70.60	259.70	64.92	5,279.12	1,319.78
256	1991.09.13 12:30:00	0:15:00	159.97	39.99	170.09	42.52	5,491.17	1,372.79
256	1991.09.13 12:45:00	0:15:00	43.69	10.92	59.00	14.75	5,718.53	1,429.63
256	1991.09.13 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 16:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
256	1991.09.13 16:30:00	0:15:00	349.80	87.45	0.00	0.00	5,471.42	1,367.86
256	1991.09.13 16:45:00	0:15:00	874.13	218.53	0.00	0.00	4,947.09	1,236.77
256	1991.09.13 17:00:00	0:15:00	1,575.22	393.81	0.00	0.00	4,246.01	1,061.50
256	1991.09.13 17:15:00	0:15:00	2,533.53	633.38	0.00	0.00	3,287.69	821.92
256	1991.09.13 17:30:00	0:15:00	3,897.68	974.42	0.00	0.00	1,923.54	480.89
256	1991.09.13 17:45:00	0:15:00	4,681.71	1,170.43	0.00	0.00	1,139.51	284.88
256	1991.09.13 18:00:00	0:15:00	5,132.98	1,283.24	0.00	0.00	688.25	172.06
256	1991.09.13 18:15:00	0:10:48	5,511.17	992.01	0.00	0.00	310.06	55.81
256	1991.09.13 18:21:00	0:03:00	5,673.11	283.66	0.00	0.00	148.12	7.41
263	1991.09.20 07:57:00	0:01:12	5,316.39	106.33	67.39	1.35	437.44	8.75
263	1991.09.20 08:00:00	0:09:00	5,278.62	791.79	63.69	9.55	478.91	71.84
263	1991.09.20 08:15:00	0:15:00	5,095.45	1,273.86	51.35	12.84	674.42	168.61
263	1991.09.20 08:30:00	0:15:00	4,532.12	1,133.03	418.18	104.55	870.93	217.73
263	1991.09.20 08:45:00	0:15:00	3,753.27	938.32	975.59	243.90	1,092.36	273.09
263	1991.09.20 09:00:00	0:15:00	3,165.74	791.44	1,344.16	336.04	1,311.32	327.83
263	1991.09.20 09:15:00	0:15:00	2,713.25	678.31	1,550.29	387.57	1,557.69	389.42
263	1991.09.20 09:30:00	0:15:00	2,344.93	586.23	1,663.59	415.90	1,812.70	453.18
263	1991.09.20 09:45:00	0:15:00	2,036.35	509.09	1,677.17	419.29	2,107.70	526.92
263	1991.09.20 10:00:00	0:15:00	1,772.71	443.18	1,622.12	405.53	2,426.39	606.60
263	1991.09.20 10:15:00	0:15:00	1,540.41	385.10	1,423.40	355.85	2,857.41	714.35
263	1991.09.20 10:30:00	0:15:00	1,335.02	333.76	1,233.56	308.39	3,252.64	813.16
263	1991.09.20 10:45:00	0:15:00	1,148.15	287.04	1,044.47	261.12	3,628.61	907.15
263	1991.09.20 11:00:00	0:15:00	980.28	245.07	883.27	220.82	3,957.67	989.42
263	1991.09.20 11:15:00	0:15:00	820.57	205.14	722.31	180.58	4,278.34	1,069.59
263	1991.09.20 11:30:00	0:15:00	672.94	168.24	583.09	145.77	4,565.20	1,141.30
263	1991.09.20 11:45:00	0:15:00	532.48	133.12	444.84	111.21	4,843.90	1,210.98
263	1991.09.20 12:00:00	0:15:00	397.45	99.36	335.24	83.81	5,088.54	1,272.14

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
263	1991.09.20 12:15:00	0:15:00	266.61	66.65	234.52	58.63	5,320.10	1,330.02
263	1991.09.20 12:30:00	0:15:00	141.95	35.49	139.23	34.81	5,540.05	1,385.01
263	1991.09.20 12:45:00	0:15:00	26.41	6.60	47.15	11.79	5,747.66	1,436.92
263	1991.09.20 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 16:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
263	1991.09.20 16:15:00	0:15:00	156.26	39.07	0.00	0.00	5,664.96	1,416.24
263	1991.09.20 16:30:00	0:15:00	565.56	141.39	0.00	0.00	5,255.67	1,313.92
263	1991.09.20 16:45:00	0:15:00	1,107.42	276.85	0.00	0.00	4,713.81	1,178.45
263	1991.09.20 17:00:00	0:15:00	1,852.20	463.05	0.00	0.00	3,969.03	992.26
263	1991.09.20 17:15:00	0:15:00	2,876.42	719.11	0.00	0.00	2,944.80	736.20
263	1991.09.20 17:30:00	0:15:00	3,865.84	966.46	0.00	0.00	1,955.38	488.85
263	1991.09.20 17:45:00	0:15:00	4,324.01	1,081.00	0.00	0.00	1,497.21	374.30
263	1991.09.20 18:00:00	0:12:36	4,787.62	1,005.40	0.00	0.00	1,033.61	217.06
263	1991.09.20 18:09:36	0:04:48	5,070.52	405.64	0.00	0.00	750.70	60.06
270	1991.09.27 08:03:00	0:06:00	5,068.05	506.81	58.01	5.80	695.16	69.52
270	1991.09.27 08:15:00	0:13:12	4,916.48	1,081.63	46.90	10.32	857.84	188.73
270	1991.09.27 08:30:00	0:15:00	4,655.05	1,163.76	112.82	28.20	1,053.36	263.34
270	1991.09.27 08:45:00	0:15:00	3,836.46	959.12	700.84	175.21	1,283.92	320.98
270	1991.09.27 09:00:00	0:15:00	3,233.63	808.41	1,070.14	267.54	1,517.45	379.36
270	1991.09.27 09:15:00	0:15:00	2,751.02	687.75	1,292.07	323.02	1,778.14	444.53
270	1991.09.27 09:30:00	0:15:00	2,368.63	592.16	1,403.90	350.97	2,048.70	512.17
270	1991.09.27 09:45:00	0:15:00	2,051.66	512.92	1,411.30	352.83	2,358.26	589.57
270	1991.09.27 10:00:00	0:15:00	1,782.58	445.65	1,342.43	335.61	2,696.21	674.05
270	1991.09.27 10:15:00	0:15:00	1,544.61	386.15	1,178.02	294.51	3,098.60	774.65
270	1991.09.27 10:30:00	0:15:00	1,333.79	333.45	1,035.09	258.77	3,452.35	863.09
270	1991.09.27 10:45:00	0:15:00	1,147.16	286.79	884.01	221.00	3,790.05	947.51
270	1991.09.27 11:00:00	0:15:00	973.13	243.28	753.91	188.48	4,094.19	1,023.55
270	1991.09.27 11:15:00	0:15:00	812.91	203.23	616.91	154.23	4,391.41	1,097.85
270	1991.09.27 11:30:00	0:15:00	663.32	165.83	498.17	124.54	4,659.74	1,164.94
270	1991.09.27 11:45:00	0:15:00	519.15	129.79	384.61	96.15	4,917.47	1,229.37
270	1991.09.27 12:00:00	0:15:00	381.15	95.29	293.02	73.26	5,147.05	1,286.76
270	1991.09.27 12:15:00	0:15:00	249.08	62.27	209.09	52.27	5,363.05	1,340.76
270	1991.09.27 12:30:00	0:15:00	122.94	30.73	113.80	28.45	5,584.48	1,396.12
270	1991.09.27 12:45:00	0:15:00	8.64	2.16	32.09	8.02	5,780.49	1,445.12
270	1991.09.27 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
270	1991.09.27 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
270	1991.09.27 16:00:00	0:15:00	17.03	4.26	0.00	0.00	5,804.19	1,451.05
270	1991.09.27 16:15:00	0:15:00	323.14	80.79	0.00	0.00	5,498.08	1,374.52
270	1991.09.27 16:30:00	0:15:00	727.50	181.88	0.00	0.00	5,093.72	1,273.43
270	1991.09.27 16:45:00	0:15:00	1,276.27	319.07	0.00	0.00	4,544.95	1,136.24
270	1991.09.27 17:00:00	0:15:00	2,038.58	509.64	0.00	0.00	3,782.65	945.66
270	1991.09.27 17:15:00	0:15:00	3,012.44	753.11	0.00	0.00	2,808.78	702.20
270	1991.09.27 17:30:00	0:15:00	3,499.00	874.75	0.00	0.00	2,322.22	580.56
270	1991.09.27 17:45:00	0:13:48	3,979.89	915.37	0.00	0.00	1,841.33	423.51
270	1991.09.27 17:58:11	0:06:36	4,394.12	483.35	0.00	0.00	1,427.10	156.98
277	1991.10.04 08:09:36	0:02:24	4,812.30	192.49	51.35	2.05	957.57	38.30
277	1991.10.04 08:15:00	0:10:12	4,740.47	805.88	46.90	7.97	1,033.85	175.76
277	1991.10.04 08:30:00	0:15:00	4,544.46	1,136.12	43.20	10.80	1,233.56	308.39
277	1991.10.04 08:45:00	0:15:00	3,912.74	978.19	436.70	109.17	1,471.78	367.95
277	1991.10.04 09:00:00	0:15:00	3,278.31	819.58	822.29	205.57	1,720.62	430.16
277	1991.10.04 09:15:00	0:15:00	2,788.05	697.01	1,040.77	260.19	1,992.41	498.10
277	1991.10.04 09:30:00	0:15:00	2,394.55	598.64	1,147.16	286.79	2,279.51	569.88
277	1991.10.04 09:45:00	0:15:00	2,068.45	517.11	1,142.23	285.56	2,610.55	652.64
277	1991.10.04 10:00:00	0:15:00	1,790.73	447.68	1,067.18	266.80	2,963.32	740.83
277	1991.10.04 10:15:00	0:15:00	1,549.55	387.39	943.75	235.94	3,327.93	831.98
277	1991.10.04 10:30:00	0:15:00	1,337.74	334.44	838.09	209.52	3,645.39	911.35
277	1991.10.04 10:45:00	0:15:00	1,144.94	286.24	721.33	180.33	3,954.96	988.74
277	1991.10.04 11:00:00	0:15:00	970.66	242.66	618.88	154.72	4,231.69	1,057.92
277	1991.10.04 11:15:00	0:15:00	804.77	201.19	511.50	127.87	4,504.96	1,126.24
277	1991.10.04 11:30:00	0:15:00	652.70	163.18	413.99	103.50	4,754.54	1,188.63
277	1991.10.04 11:45:00	0:15:00	506.31	126.58	322.65	80.66	4,992.27	1,248.07
277	1991.10.04 12:00:00	0:15:00	366.84	91.71	252.05	63.01	5,202.34	1,300.59
277	1991.10.04 12:15:00	0:15:00	232.79	58.20	187.61	46.90	5,400.82	1,350.21
277	1991.10.04 12:30:00	0:15:00	105.16	26.29	95.29	23.82	5,620.77	1,405.19
277	1991.10.04 12:45:00	0:15:00	2.96	0.74	24.93	6.23	5,793.33	1,448.33
277	1991.10.04 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 15:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
277	1991.10.04 16:00:00	0:15:00	144.41	36.10	0.00	0.00	5,676.81	1,419.20
277	1991.10.04 16:15:00	0:15:00	411.27	102.82	0.00	0.00	5,409.95	1,352.49
277	1991.10.04 16:30:00	0:15:00	801.56	200.39	0.00	0.00	5,019.67	1,254.92
277	1991.10.04 16:45:00	0:15:00	1,325.89	331.47	0.00	0.00	4,495.33	1,123.83
277	1991.10.04 17:00:00	0:15:00	2,054.38	513.59	0.00	0.00	3,766.85	941.71
277	1991.10.04 17:15:00	0:15:00	2,617.71	654.43	0.00	0.00	3,203.51	800.88
277	1991.10.04 17:30:00	0:16:12	3,144.02	848.89	0.00	0.00	2,677.21	722.85
277	1991.10.04 17:47:23	0:08:24	3,710.81	519.51	0.00	0.00	2,110.41	295.46
284	1991.10.11 08:16:11	0:07:12	4,553.59	546.43	51.59	6.19	1,216.04	145.92
284	1991.10.11 08:30:00	0:14:24	4,364.00	1,047.36	42.46	10.19	1,414.76	339.54
284	1991.10.11 08:45:00	0:15:00	3,976.68	994.17	195.27	48.82	1,649.28	412.32
284	1991.10.11 09:00:00	0:15:00	3,352.37	838.09	577.16	144.29	1,891.69	472.92

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
284	1991.10.11 09:15:00	0:15:00	2,976.65	744.16	796.13	199.03	2,048.45	512.11
284	1991.10.11 09:30:00	0:15:00	2,541.18	635.30	897.59	224.40	2,382.45	595.61
284	1991.10.11 09:45:00	0:15:00	2,098.56	524.64	882.28	220.57	2,840.38	710.10
284	1991.10.11 10:00:00	0:15:00	1,802.58	450.64	823.28	205.82	3,195.37	798.84
284	1991.10.11 10:15:00	0:15:00	1,557.44	389.36	739.60	184.90	3,524.18	881.05
284	1991.10.11 10:30:00	0:15:00	1,340.21	335.05	665.04	166.26	3,815.97	953.99
284	1991.10.11 10:45:00	0:15:00	1,144.45	286.11	577.65	144.41	4,099.12	1,024.78
284	1991.10.11 11:00:00	0:15:00	967.94	241.99	500.63	125.16	4,352.65	1,088.16
284	1991.10.11 11:15:00	0:15:00	800.08	200.02	413.99	103.50	4,607.16	1,151.79
284	1991.10.11 11:30:00	0:15:00	644.80	161.20	338.69	84.67	4,837.73	1,209.43
284	1991.10.11 11:45:00	0:15:00	496.44	124.11	267.10	66.78	5,057.68	1,264.42
284	1991.10.11 12:00:00	0:15:00	355.23	88.81	216.00	54.00	5,249.99	1,312.50
284	1991.10.11 12:15:00	0:15:00	217.98	54.50	173.54	43.39	5,429.70	1,357.43
284	1991.10.11 12:30:00	0:15:00	90.60	22.65	84.67	21.17	5,645.95	1,411.49
284	1991.10.11 12:45:00	0:15:00	0.00	0.00	10.12	2.53	5,811.10	1,452.78
284	1991.10.11 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
284	1991.10.11 15:45:00	0:15:00	31.10	7.78	0.00	0.00	5,790.12	1,447.53
284	1991.10.11 16:00:00	0:15:00	183.66	45.92	0.00	0.00	5,637.56	1,409.39
284	1991.10.11 16:15:00	0:15:00	408.06	102.02	0.00	0.00	5,413.16	1,353.29
284	1991.10.11 16:30:00	0:15:00	747.99	187.00	0.00	0.00	5,073.24	1,268.31
284	1991.10.11 16:45:00	0:15:00	1,181.97	295.49	0.00	0.00	4,639.25	1,159.81
284	1991.10.11 17:00:00	0:15:00	1,712.97	428.24	0.00	0.00	4,108.26	1,027.06
284	1991.10.11 17:15:00	0:15:00	2,259.27	564.82	0.00	0.00	3,561.95	890.49
284	1991.10.11 17:30:00	0:11:24	2,792.24	530.53	0.00	0.00	3,028.98	575.51
284	1991.10.11 17:37:12	0:03:36	3,024.79	181.49	0.00	0.00	2,796.44	167.79
291	1991.10.18 08:22:48	0:03:36	4,570.38	274.22	50.11	3.01	1,200.73	72.04
291	1991.10.18 08:30:00	0:10:48	4,491.88	808.54	45.18	8.13	1,284.17	231.15
291	1991.10.18 08:45:00	0:15:00	3,980.14	995.03	39.99	10.00	1,801.10	450.27
291	1991.10.18 09:00:00	0:15:00	3,518.51	879.63	356.71	89.18	1,946.00	486.50
291	1991.10.18 09:15:00	0:15:00	3,283.00	820.75	561.86	140.46	1,976.37	494.09
291	1991.10.18 09:30:00	0:15:00	3,000.59	750.15	655.91	163.98	2,164.72	541.18
291	1991.10.18 09:45:00	0:15:00	2,634.00	658.50	648.50	162.13	2,538.72	634.68
291	1991.10.18 10:00:00	0:15:00	2,151.39	537.85	621.60	155.40	3,048.24	762.06
291	1991.10.18 10:15:00	0:15:00	1,786.53	446.63	572.22	143.06	3,462.47	865.62
291	1991.10.18 10:30:00	0:15:00	1,448.09	362.02	522.85	130.71	3,850.29	962.57
291	1991.10.18 10:45:00	0:15:00	1,177.77	294.44	458.67	114.67	4,184.78	1,046.20
291	1991.10.18 11:00:00	0:15:00	967.69	241.92	399.42	99.86	4,454.11	1,113.53
291	1991.10.18 11:15:00	0:15:00	797.11	199.28	331.78	82.95	4,692.33	1,173.08
291	1991.10.18 11:30:00	0:15:00	638.38	159.60	273.52	68.38	4,909.32	1,227.33
291	1991.10.18 11:45:00	0:15:00	489.28	122.32	220.20	55.05	5,111.75	1,277.94
291	1991.10.18 12:00:00	0:15:00	345.11	86.28	187.61	46.90	5,288.50	1,322.12
291	1991.10.18 12:15:00	0:15:00	205.88	51.47	162.19	40.55	5,453.15	1,363.29
291	1991.10.18 12:30:00	0:15:00	76.53	19.13	75.54	18.89	5,669.16	1,417.29
291	1991.10.18 12:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
291	1991.10.18 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 15:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
291	1991.10.18 15:45:00	0:15:00	36.54	9.13	0.00	0.00	5,784.69	1,446.17
291	1991.10.18 16:00:00	0:15:00	125.65	31.41	0.00	0.00	5,695.57	1,423.89
291	1991.10.18 16:15:00	0:15:00	278.95	69.74	0.00	0.00	5,542.27	1,385.57
291	1991.10.18 16:30:00	0:15:00	538.16	134.54	0.00	0.00	5,283.07	1,320.77
291	1991.10.18 16:45:00	0:15:00	885.49	221.37	0.00	0.00	4,935.73	1,233.93
291	1991.10.18 17:00:00	0:15:00	1,359.96	339.99	0.00	0.00	4,461.27	1,115.32
291	1991.10.18 17:15:00	0:13:12	1,855.41	408.19	0.00	0.00	3,965.82	872.48
291	1991.10.18 17:27:00	0:06:00	2,343.94	234.39	0.00	0.00	3,477.28	347.73
298	1991.10.25 07:30:00	0:07:48	4,928.33	640.68	49.37	6.42	843.52	109.66
298	1991.10.25 07:45:00	0:15:00	4,589.39	1,147.35	40.24	10.06	1,191.60	297.90
298	1991.10.25 08:00:00	0:15:00	3,881.64	970.41	171.57	42.89	1,768.02	442.00
298	1991.10.25 08:15:00	0:15:00	3,585.90	896.48	355.48	88.87	1,879.84	469.96
298	1991.10.25 08:30:00	0:15:00	3,499.00	874.75	437.93	109.48	1,884.29	471.07
298	1991.10.25 08:45:00	0:15:00	3,256.09	814.02	455.71	113.93	2,109.43	527.36
298	1991.10.25 09:00:00	0:15:00	2,715.96	678.99	459.16	114.79	2,646.10	661.53
298	1991.10.25 09:15:00	0:15:00	2,267.42	566.85	431.51	107.88	3,122.30	780.57
298	1991.10.25 09:30:00	0:15:00	1,813.44	453.36	405.59	101.40	3,602.19	900.55
298	1991.10.25 09:45:00	0:15:00	1,458.95	364.74	360.42	90.10	4,001.86	1,000.47
298	1991.10.25 10:00:00	0:15:00	1,150.87	287.72	316.72	79.18	4,353.64	1,088.41
298	1991.10.25 10:15:00	0:15:00	903.76	225.94	267.60	66.90	4,649.87	1,162.47
298	1991.10.25 10:30:00	0:15:00	684.30	171.07	221.19	55.30	4,915.74	1,228.93
298	1991.10.25 10:45:00	0:15:00	499.65	124.91	184.41	46.10	5,137.17	1,284.29
298	1991.10.25 11:00:00	0:15:00	338.45	84.61	167.37	41.84	5,315.41	1,328.85
298	1991.10.25 11:15:00	0:15:00	197.49	49.37	152.07	38.02	5,471.67	1,367.92
298	1991.10.25 11:30:00	0:15:00	66.65	16.66	68.87	17.22	5,685.70	1,421.42
298	1991.10.25 11:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 12:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 12:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 12:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 12:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
298	1991.10.25 14:45:00	0:15:00	0.74	0.19	0.00	0.00	5,820.48	1,455.12
298	1991.10.25 15:00:00	0:15:00	54.06	13.52	0.00	0.00	5,767.16	1,441.79
298	1991.10.25 15:15:00	0:15:00	180.70	45.18	0.00	0.00	5,640.52	1,410.13
298	1991.10.25 15:30:00	0:15:00	390.78	97.70	0.00	0.00	5,430.44	1,357.61
298	1991.10.25 15:45:00	0:15:00	674.92	168.73	0.00	0.00	5,146.31	1,286.58
298	1991.10.25 16:00:00	0:15:00	1,067.18	266.80	0.00	0.00	4,754.04	1,188.51
298	1991.10.25 16:15:00	0:09:00	1,564.60	234.69	0.00	0.00	4,256.62	638.49
298	1991.10.25 16:18:00	0:01:48	1,676.68	50.30	0.00	0.00	4,144.55	124.34

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
305	1991.11.01 07:36:35	0:04:12	5,495.12	384.66	37.03	2.59	289.07	20.24
305	1991.11.01 07:45:00	0:11:24	5,427.73	1,031.27	44.93	8.54	348.57	66.23
305	1991.11.01 08:00:00	0:15:00	4,581.00	1,145.25	51.59	12.90	1,188.63	297.16
305	1991.11.01 08:15:00	0:15:00	4,088.26	1,022.07	184.41	46.10	1,548.56	387.14
305	1991.11.01 08:30:00	0:15:00	4,009.76	1,002.44	262.17	65.54	1,549.30	387.32
305	1991.11.01 08:45:00	0:15:00	3,898.18	974.54	302.90	75.73	1,620.15	405.04
305	1991.11.01 09:00:00	0:15:00	3,433.09	858.27	322.15	80.54	2,065.98	516.49
305	1991.11.01 09:15:00	0:15:00	2,821.12	705.28	277.97	69.49	2,722.13	680.53
305	1991.11.01 09:30:00	0:15:00	2,193.11	548.28	279.94	69.99	3,348.17	837.04
305	1991.11.01 09:45:00	0:15:00	1,742.34	435.59	264.64	66.16	3,814.25	953.56
305	1991.11.01 10:00:00	0:15:00	1,355.02	338.76	251.55	62.89	4,214.65	1,053.66
305	1991.11.01 10:15:00	0:15:00	1,041.01	260.25	214.77	53.69	4,565.44	1,141.36
305	1991.11.01 10:30:00	0:15:00	767.49	191.87	182.43	45.61	4,871.30	1,217.83
305	1991.11.01 10:45:00	0:15:00	532.48	133.12	157.25	39.31	5,131.49	1,282.87
305	1991.11.01 11:00:00	0:15:00	335.73	83.93	155.03	38.76	5,330.46	1,332.62
305	1991.11.01 11:15:00	0:15:00	194.03	48.51	145.15	36.29	5,482.04	1,370.51
305	1991.11.01 11:30:00	0:15:00	60.73	15.18	65.91	16.48	5,694.58	1,423.65
305	1991.11.01 11:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 12:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 12:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 12:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 12:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 14:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
305	1991.11.01 15:00:00	0:15:00	20.24	5.06	0.00	0.00	5,800.98	1,450.25
305	1991.11.01 15:15:00	0:15:00	110.35	27.59	0.00	0.00	5,710.88	1,427.72
305	1991.11.01 15:30:00	0:15:00	274.26	68.57	0.00	0.00	5,546.96	1,386.74
305	1991.11.01 15:45:00	0:15:00	505.08	126.27	0.00	0.00	5,316.15	1,329.04
305	1991.11.01 16:00:00	0:12:36	831.18	174.55	0.00	0.00	4,990.04	1,047.91
305	1991.11.01 16:10:12	0:05:24	1,095.07	98.56	0.00	0.00	4,726.15	425.35
312	1991.11.08 07:43:48	0:00:36	5,791.60	57.92	0.00	0.00	29.62	0.30
312	1991.11.08 07:45:00	0:07:48	5,789.87	752.68	0.00	0.00	31.35	4.08
312	1991.11.08 08:00:00	0:15:00	5,172.97	1,293.24	5.18	1.30	643.07	160.77
312	1991.11.08 08:15:00	0:15:00	4,617.53	1,154.38	70.60	17.65	1,133.09	283.27
312	1991.11.08 08:30:00	0:15:00	4,490.89	1,122.72	136.51	34.13	1,193.82	298.46
312	1991.11.08 08:45:00	0:15:00	4,508.66	1,127.17	186.38	46.60	1,126.18	281.55
312	1991.11.08 09:00:00	0:15:00	4,300.56	1,075.14	206.13	51.53	1,314.53	328.63
312	1991.11.08 09:15:00	0:15:00	3,498.26	874.57	186.13	46.53	2,136.83	534.21
312	1991.11.08 09:30:00	0:15:00	2,648.32	662.08	185.64	46.41	2,987.26	746.82
312	1991.11.08 09:45:00	0:15:00	2,045.24	511.31	171.32	42.83	3,604.66	901.17
312	1991.11.08 10:00:00	0:15:00	1,571.76	392.94	164.66	41.16	4,084.81	1,021.20
312	1991.11.08 10:15:00	0:15:00	1,192.09	298.02	145.15	36.29	4,483.98	1,121.00
312	1991.11.08 10:30:00	0:15:00	857.35	214.34	135.28	33.82	4,828.60	1,207.15
312	1991.11.08 10:45:00	0:15:00	569.76	142.44	131.33	32.83	5,120.14	1,280.04
312	1991.11.08 11:00:00	0:15:00	339.43	84.86	146.14	36.54	5,335.65	1,333.91
312	1991.11.08 11:15:00	0:15:00	195.51	48.88	143.92	35.98	5,481.79	1,370.45
312	1991.11.08 11:30:00	0:15:00	61.22	15.31	65.67	16.42	5,694.34	1,423.58
312	1991.11.08 11:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 12:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
312	1991.11.08 12:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 12:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 12:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 14:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 14:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 14:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
312	1991.11.08 14:45:00	0:15:00	0.99	0.25	0.00	0.00	5,820.24	1,455.06
312	1991.11.08 15:00:00	0:15:00	2.96	0.74	0.00	0.00	5,818.26	1,454.57
312	1991.11.08 15:15:00	0:15:00	58.01	14.50	0.00	0.00	5,763.21	1,440.80
312	1991.11.08 15:30:00	0:15:00	183.42	45.85	0.00	0.00	5,637.81	1,409.45
312	1991.11.08 15:45:00	0:15:00	370.54	92.63	0.00	0.00	5,450.69	1,362.67
312	1991.11.08 16:00:00	0:09:00	639.62	95.94	0.00	0.00	5,181.61	777.24
312	1991.11.08 16:03:00	0:01:48	706.52	21.20	0.00	0.00	5,114.71	153.44
319	1991.11.15 07:51:00	0:04:48	5,821.22	465.70	0.00	0.00	0.00	0.00
319	1991.11.15 08:00:00	0:12:00	5,729.88	1,145.98	0.00	0.00	91.34	18.27
319	1991.11.15 08:15:00	0:15:00	5,030.78	1,257.69	5.18	1.30	785.26	196.32
319	1991.11.15 08:30:00	0:15:00	4,871.30	1,217.83	60.98	15.24	888.95	222.24
319	1991.11.15 08:45:00	0:15:00	5,064.35	1,266.09	101.46	25.37	655.42	163.85
319	1991.11.15 09:00:00	0:15:00	5,020.16	1,255.04	111.09	27.77	689.98	172.49
319	1991.11.15 09:15:00	0:15:00	4,239.34	1,059.84	115.78	28.94	1,466.11	366.53
319	1991.11.15 09:30:00	0:15:00	3,299.54	824.89	126.64	31.66	2,395.04	598.76
319	1991.11.15 09:45:00	0:15:00	2,583.15	645.79	118.00	29.50	3,120.07	780.02
319	1991.11.15 10:00:00	0:15:00	1,911.69	477.92	106.64	26.66	3,802.89	950.72
319	1991.11.15 10:15:00	0:15:00	1,369.09	342.27	92.82	23.21	4,359.31	1,089.83
319	1991.11.15 10:30:00	0:15:00	958.56	239.64	85.17	21.29	4,777.50	1,194.37
319	1991.11.15 10:45:00	0:15:00	620.11	155.03	95.54	23.88	5,105.57	1,276.39
319	1991.11.15 11:00:00	0:15:00	349.06	87.27	138.00	34.50	5,334.17	1,333.54
319	1991.11.15 11:15:00	0:15:00	202.67	50.67	147.87	36.97	5,470.68	1,367.67
319	1991.11.15 11:30:00	0:15:00	67.15	16.79	67.89	16.97	5,686.19	1,421.55
319	1991.11.15 11:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 12:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 12:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 12:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 12:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 13:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 13:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 13:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 14:00:00	0:15:00	6.17	1.54	0.00	0.00	5,815.05	1,453.76
319	1991.11.15 14:15:00	0:15:00	53.82	13.45	0.00	0.00	5,767.41	1,441.85
319	1991.11.15 14:30:00	0:15:00	54.31	13.58	0.00	0.00	5,766.91	1,441.73
319	1991.11.15 14:45:00	0:15:00	8.89	2.22	0.00	0.00	5,812.34	1,453.08
319	1991.11.15 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
319	1991.11.15 15:15:00	0:15:00	24.44	6.11	0.00	0.00	5,796.78	1,449.20
319	1991.11.15 15:30:00	0:15:00	116.77	29.19	0.00	0.00	5,704.46	1,426.11
319	1991.11.15 15:45:00	0:13:48	265.87	61.15	0.00	0.00	5,555.35	1,277.73
319	1991.11.15 15:57:36	0:06:36	449.78	49.48	0.00	0.00	5,371.44	590.86
326	1991.11.22 07:57:36	0:01:12	5,821.22	116.42	0.00	0.00	0.00	0.00
326	1991.11.22 08:00:00	0:09:00	5,821.22	873.18	0.00	0.00	0.00	0.00
326	1991.11.22 08:15:00	0:15:00	5,390.95	1,347.74	0.00	0.00	430.28	107.57
326	1991.11.22 08:30:00	0:15:00	5,143.59	1,285.90	36.29	9.07	641.34	160.34

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
326	1991.11.22 08:45:00	0:15:00	5,357.87	1,339.47	53.82	13.45	409.54	102.39
326	1991.11.22 09:00:00	0:15:00	5,573.38	1,393.34	44.93	11.23	202.92	50.73
326	1991.11.22 09:15:00	0:15:00	4,977.45	1,244.36	64.92	16.23	778.85	194.71
326	1991.11.22 09:30:00	0:15:00	3,963.10	990.78	79.74	19.93	1,778.39	444.60
326	1991.11.22 09:45:00	0:15:00	3,158.09	789.52	79.98	20.00	2,583.15	645.79
326	1991.11.22 10:00:00	0:15:00	2,434.05	608.51	77.02	19.26	3,310.16	827.54
326	1991.11.22 10:15:00	0:15:00	1,853.43	463.36	60.73	15.18	3,907.07	976.77
326	1991.11.22 10:30:00	0:15:00	1,281.21	320.30	53.08	13.27	4,486.94	1,121.74
326	1991.11.22 10:45:00	0:15:00	813.16	203.29	62.70	15.68	4,945.36	1,236.34
326	1991.11.22 11:00:00	0:15:00	398.43	99.61	129.60	32.40	5,293.19	1,323.30
326	1991.11.22 11:15:00	0:15:00	224.89	56.22	155.28	38.82	5,441.06	1,360.26
326	1991.11.22 11:30:00	0:15:00	77.76	19.44	75.05	18.76	5,668.42	1,417.10
326	1991.11.22 11:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
326	1991.11.22 12:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
326	1991.11.22 12:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
326	1991.11.22 12:30:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
326	1991.11.22 12:45:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
326	1991.11.22 13:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
326	1991.11.22 13:15:00	0:15:00	15.80	3.95	0.00	0.00	5,805.42	1,451.36
326	1991.11.22 13:30:00	0:15:00	46.41	11.60	0.00	0.00	5,774.81	1,443.70
326	1991.11.22 13:45:00	0:15:00	115.04	28.76	0.00	0.00	5,706.19	1,426.55
326	1991.11.22 14:00:00	0:15:00	149.60	37.40	0.00	0.00	5,671.63	1,417.91
326	1991.11.22 14:15:00	0:15:00	173.30	43.32	0.00	0.00	5,647.93	1,411.98
326	1991.11.22 14:30:00	0:15:00	116.77	29.19	0.00	0.00	5,704.46	1,426.11
326	1991.11.22 14:45:00	0:15:00	9.63	2.41	0.00	0.00	5,811.60	1,452.90
326	1991.11.22 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
326	1991.11.22 15:15:00	0:15:00	5.68	1.42	0.00	0.00	5,815.55	1,453.89
326	1991.11.22 15:30:00	0:15:00	66.90	16.73	0.00	0.00	5,754.32	1,438.58
326	1991.11.22 15:45:00	0:12:00	183.42	36.68	0.00	0.00	5,637.81	1,127.56
326	1991.11.22 15:54:00	0:04:48	285.37	22.83	0.00	0.00	5,535.85	442.87
333	1991.11.29 08:04:12	0:05:24	5,821.22	523.91	0.00	0.00	0.00	0.00
333	1991.11.29 08:15:00	0:12:36	5,739.02	1,205.19	0.00	0.00	82.21	17.26
333	1991.11.29 08:30:00	0:15:00	5,325.77	1,331.44	15.06	3.77	480.39	120.10
333	1991.11.29 08:45:00	0:15:00	5,496.60	1,374.15	38.02	9.50	286.61	71.65
333	1991.11.29 09:00:00	0:15:00	5,780.99	1,445.25	11.60	2.90	28.64	7.16
333	1991.11.29 09:15:00	0:15:00	5,651.38	1,412.85	22.46	5.62	147.38	36.84
333	1991.11.29 09:30:00	0:15:00	4,572.35	1,143.09	48.63	12.16	1,200.24	300.06
333	1991.11.29 09:45:00	0:15:00	3,704.64	926.16	53.08	13.27	2,063.51	515.88
333	1991.11.29 10:00:00	0:15:00	2,918.14	729.54	55.54	13.89	2,847.54	711.89
333	1991.11.29 10:15:00	0:15:00	2,307.90	576.98	44.44	11.11	3,468.89	867.22
333	1991.11.29 10:30:00	0:15:00	1,711.98	428.00	34.31	8.58	4,074.93	1,018.73
333	1991.11.29 10:45:00	0:15:00	1,215.30	303.82	29.87	7.47	4,576.06	1,144.01
333	1991.11.29 11:00:00	0:15:00	743.30	185.82	121.21	30.30	4,956.72	1,239.18
333	1991.11.29 11:15:00	0:15:00	506.81	126.70	154.04	38.51	5,160.38	1,290.09
333	1991.11.29 11:30:00	0:15:00	253.77	63.44	85.91	21.48	5,481.54	1,370.39
333	1991.11.29 11:45:00	0:15:00	128.61	32.15	9.87	2.47	5,682.73	1,420.68
333	1991.11.29 12:00:00	0:15:00	73.81	18.45	0.00	0.00	5,747.41	1,436.85
333	1991.11.29 12:15:00	0:15:00	83.19	20.80	0.00	0.00	5,738.03	1,434.51
333	1991.11.29 12:30:00	0:15:00	66.16	16.54	0.00	0.00	5,755.06	1,438.77
333	1991.11.29 12:45:00	0:15:00	108.13	27.03	0.00	0.00	5,713.10	1,428.27
333	1991.11.29 13:00:00	0:15:00	126.39	31.60	0.00	0.00	5,694.83	1,423.71
333	1991.11.29 13:15:00	0:15:00	188.36	47.09	0.00	0.00	5,632.87	1,408.22
333	1991.11.29 13:30:00	0:15:00	220.45	55.11	0.00	0.00	5,600.78	1,400.19
333	1991.11.29 13:45:00	0:15:00	275.00	68.75	0.00	0.00	5,546.22	1,386.56
333	1991.11.29 14:00:00	0:15:00	287.10	71.78	0.00	0.00	5,534.12	1,383.53

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
333	1991.11.29 14:15:00	0:15:00	272.04	68.01	0.00	0.00	5,549.18	1,387.30
333	1991.11.29 14:30:00	0:15:00	165.89	41.47	0.00	0.00	5,655.33	1,413.83
333	1991.11.29 14:45:00	0:15:00	29.62	7.41	0.00	0.00	5,791.60	1,447.90
333	1991.11.29 15:00:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
333	1991.11.29 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
333	1991.11.29 15:30:00	0:15:00	32.83	8.21	0.00	0.00	5,788.39	1,447.10
333	1991.11.29 15:45:00	0:10:48	124.91	22.48	0.00	0.00	5,696.31	1,025.34
333	1991.11.29 15:51:36	0:03:00	195.02	9.75	0.00	0.00	5,626.20	281.31
340	1991.12.06 08:10:12	0:02:24	5,821.22	232.85	0.00	0.00	0.00	0.00
340	1991.12.06 08:15:00	0:10:12	5,821.22	989.61	0.00	0.00	0.00	0.00
340	1991.12.06 08:30:00	0:15:00	5,486.48	1,371.62	0.00	0.00	334.74	83.69
340	1991.12.06 08:45:00	0:15:00	5,555.85	1,388.96	37.52	9.38	227.85	56.96
340	1991.12.06 09:00:00	0:15:00	5,809.37	1,452.34	0.25	0.06	11.60	2.90
340	1991.12.06 09:15:00	0:15:00	5,820.73	1,455.18	0.49	0.12	0.00	0.00
340	1991.12.06 09:30:00	0:15:00	5,176.92	1,294.23	24.19	6.05	620.11	155.03
340	1991.12.06 09:45:00	0:15:00	4,209.72	1,052.43	34.56	8.64	1,576.95	394.24
340	1991.12.06 10:00:00	0:15:00	3,354.10	838.52	40.73	10.18	2,426.39	606.60
340	1991.12.06 10:15:00	0:15:00	2,707.82	676.95	34.07	8.52	3,079.34	769.84
340	1991.12.06 10:30:00	0:15:00	2,073.14	518.28	26.66	6.67	3,721.43	930.36
340	1991.12.06 10:45:00	0:15:00	1,562.88	390.72	16.29	4.07	4,242.06	1,060.51
340	1991.12.06 11:00:00	0:15:00	1,056.32	264.08	111.33	27.83	4,653.57	1,163.39
340	1991.12.06 11:15:00	0:15:00	796.13	199.03	147.38	36.84	4,877.72	1,219.43
340	1991.12.06 11:30:00	0:15:00	534.21	133.55	99.73	24.93	5,187.29	1,296.82
340	1991.12.06 11:45:00	0:15:00	374.74	93.68	16.54	4.14	5,429.95	1,357.49
340	1991.12.06 12:00:00	0:15:00	300.92	75.23	0.00	0.00	5,520.30	1,380.08
340	1991.12.06 12:15:00	0:15:00	288.83	72.21	0.00	0.00	5,532.40	1,383.10
340	1991.12.06 12:30:00	0:15:00	258.96	64.74	0.00	0.00	5,562.27	1,390.57
340	1991.12.06 12:45:00	0:15:00	286.11	71.53	0.00	0.00	5,535.11	1,383.78
340	1991.12.06 13:00:00	0:15:00	290.80	72.70	0.00	0.00	5,530.42	1,382.61
340	1991.12.06 13:15:00	0:15:00	343.63	85.91	0.00	0.00	5,477.59	1,369.40
340	1991.12.06 13:30:00	0:15:00	359.92	89.98	0.00	0.00	5,461.30	1,365.33
340	1991.12.06 13:45:00	0:15:00	401.15	100.29	0.00	0.00	5,420.07	1,355.02
340	1991.12.06 14:00:00	0:15:00	393.50	98.37	0.00	0.00	5,427.73	1,356.93
340	1991.12.06 14:15:00	0:15:00	353.26	88.31	0.00	0.00	5,467.97	1,366.99
340	1991.12.06 14:30:00	0:15:00	221.43	55.36	0.00	0.00	5,599.79	1,399.95
340	1991.12.06 14:45:00	0:15:00	56.53	14.13	0.00	0.00	5,764.69	1,441.17
340	1991.12.06 15:00:00	0:15:00	1.48	0.37	0.00	0.00	5,819.74	1,454.94
340	1991.12.06 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
340	1991.12.06 15:30:00	0:15:00	13.08	3.27	0.00	0.00	5,808.14	1,452.04
340	1991.12.06 15:45:00	0:10:12	80.97	13.77	0.00	0.00	5,740.25	975.84
340	1991.12.06 15:51:00	0:03:00	420.40	21.02	0.00	0.00	5,400.82	270.04
347	1991.12.13 08:15:36	0:07:12	5,821.22	698.55	0.00	0.00	0.00	0.00
347	1991.12.13 08:30:00	0:15:00	5,644.96	1,411.24	0.00	0.00	176.26	44.07
347	1991.12.13 08:45:00	0:15:00	5,577.32	1,394.33	19.01	4.75	224.89	56.22
347	1991.12.13 09:00:00	0:15:00	5,818.26	1,454.57	0.00	0.00	2.96	0.74
347	1991.12.13 09:15:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
347	1991.12.13 09:30:00	0:15:00	5,631.39	1,407.85	0.00	0.00	189.84	47.46
347	1991.12.13 09:45:00	0:15:00	4,650.61	1,162.65	23.21	5.80	1,147.41	286.85
347	1991.12.13 10:00:00	0:15:00	3,734.02	933.50	30.86	7.71	2,056.35	514.09
347	1991.12.13 10:15:00	0:15:00	3,033.43	758.36	28.39	7.10	2,759.41	689.85
347	1991.12.13 10:30:00	0:15:00	2,370.85	592.71	22.96	5.74	3,427.41	856.85
347	1991.12.13 10:45:00	0:15:00	1,841.83	460.46	13.82	3.46	3,965.57	991.39
347	1991.12.13 11:00:00	0:15:00	1,310.34	327.58	88.38	22.09	4,422.51	1,105.63
347	1991.12.13 11:15:00	0:15:00	1,009.41	252.35	141.45	35.36	4,670.36	1,167.59
347	1991.12.13 11:30:00	0:15:00	733.18	183.29	117.01	29.25	4,971.04	1,242.76

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
347	1991.12.13 11:45:00	0:15:00	560.13	140.03	34.81	8.70	5,226.29	1,306.57
347	1991.12.13 12:00:00	0:15:00	453.48	113.37	0.00	0.00	5,367.74	1,341.94
347	1991.12.13 12:15:00	0:15:00	440.15	110.04	0.00	0.00	5,381.07	1,345.27
347	1991.12.13 12:30:00	0:15:00	383.13	95.78	0.00	0.00	5,438.10	1,359.52
347	1991.12.13 12:45:00	0:15:00	407.81	101.95	0.00	0.00	5,413.41	1,353.35
347	1991.12.13 13:00:00	0:15:00	397.94	99.49	0.00	0.00	5,423.28	1,355.82
347	1991.12.13 13:15:00	0:15:00	443.36	110.84	0.00	0.00	5,377.86	1,344.47
347	1991.12.13 13:30:00	0:15:00	452.50	113.12	0.00	0.00	5,368.73	1,342.18
347	1991.12.13 13:45:00	0:15:00	482.61	120.65	0.00	0.00	5,338.61	1,334.65
347	1991.12.13 14:00:00	0:15:00	459.66	114.91	0.00	0.00	5,361.57	1,340.39
347	1991.12.13 14:15:00	0:15:00	418.92	104.73	0.00	0.00	5,402.30	1,350.58
347	1991.12.13 14:30:00	0:15:00	280.93	70.23	0.00	0.00	5,540.30	1,385.07
347	1991.12.13 14:45:00	0:15:00	88.62	22.16	0.00	0.00	5,732.60	1,433.15
347	1991.12.13 15:00:00	0:15:00	10.62	2.65	0.00	0.00	5,810.61	1,452.65
347	1991.12.13 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
347	1991.12.13 15:30:00	0:15:00	2.96	0.74	0.00	0.00	5,818.26	1,454.57
347	1991.12.13 15:45:00	0:10:48	49.62	8.93	0.00	0.00	5,771.60	1,038.89
347	1991.12.13 15:52:11	0:03:36	643.07	38.58	0.00	0.00	5,178.15	310.69
354	1991.12.20 08:19:48	0:04:48	5,821.22	465.70	0.00	0.00	0.00	0.00
354	1991.12.20 08:30:00	0:12:36	5,773.09	1,212.35	0.00	0.00	48.14	10.11
354	1991.12.20 08:45:00	0:15:00	5,581.77	1,395.44	5.68	1.42	233.78	58.44
354	1991.12.20 09:00:00	0:15:00	5,753.58	1,438.40	11.85	2.96	55.79	13.95
354	1991.12.20 09:15:00	0:15:00	5,821.22	1,455.31	0.00	0.00	0.00	0.00
354	1991.12.20 09:30:00	0:15:00	5,800.24	1,450.06	0.00	0.00	20.98	5.25
354	1991.12.20 09:45:00	0:15:00	4,973.01	1,243.25	15.55	3.89	832.66	208.17
354	1991.12.20 10:00:00	0:15:00	4,011.98	1,003.00	26.17	6.54	1,783.08	445.77
354	1991.12.20 10:15:00	0:15:00	3,263.75	815.94	26.91	6.73	2,530.57	632.64
354	1991.12.20 10:30:00	0:15:00	2,577.23	644.31	22.46	5.62	3,221.53	805.38
354	1991.12.20 10:45:00	0:15:00	2,028.95	507.24	14.81	3.70	3,777.46	944.37
354	1991.12.20 11:00:00	0:15:00	1,484.13	371.03	49.87	12.47	4,287.23	1,071.81
354	1991.12.20 11:15:00	0:15:00	1,133.58	283.40	134.05	33.51	4,553.59	1,138.40
354	1991.12.20 11:30:00	0:15:00	847.23	211.81	135.03	33.76	4,838.96	1,209.74
354	1991.12.20 11:45:00	0:15:00	663.07	165.77	52.33	13.08	5,105.82	1,276.46
354	1991.12.20 12:00:00	0:15:00	529.02	132.26	0.00	0.00	5,292.20	1,323.05
354	1991.12.20 12:15:00	0:15:00	500.39	125.10	0.00	0.00	5,320.84	1,330.21
354	1991.12.20 12:30:00	0:15:00	437.93	109.48	0.00	0.00	5,383.29	1,345.82
354	1991.12.20 12:45:00	0:15:00	456.20	114.05	0.00	0.00	5,365.02	1,341.26
354	1991.12.20 13:00:00	0:15:00	440.15	110.04	0.00	0.00	5,381.07	1,345.27
354	1991.12.20 13:15:00	0:15:00	479.90	119.97	0.00	0.00	5,341.33	1,335.33
354	1991.12.20 13:30:00	0:15:00	486.07	121.52	0.00	0.00	5,335.15	1,333.79
354	1991.12.20 13:45:00	0:15:00	513.96	128.49	0.00	0.00	5,307.26	1,326.82
354	1991.12.20 14:00:00	0:15:00	497.42	124.36	0.00	0.00	5,323.80	1,330.95
354	1991.12.20 14:15:00	0:15:00	457.93	114.48	0.00	0.00	5,363.30	1,340.82
354	1991.12.20 14:30:00	0:15:00	329.81	82.45	0.00	0.00	5,491.42	1,372.85
354	1991.12.20 14:45:00	0:15:00	131.82	32.96	0.00	0.00	5,689.40	1,422.35
354	1991.12.20 15:00:00	0:15:00	23.70	5.93	0.00	0.00	5,797.52	1,449.38
354	1991.12.20 15:15:00	0:15:00	0.00	0.00	0.00	0.00	5,821.22	1,455.31
354	1991.12.20 15:30:00	0:15:00	0.25	0.06	0.00	0.00	5,820.98	1,455.24
354	1991.12.20 15:45:00	0:12:36	31.35	6.58	0.00	0.00	5,789.87	1,215.87
354	1991.12.20 15:54:36	0:04:48	672.70	53.82	0.00	0.00	5,148.53	411.88
			1,743,593.17	387,350.15	499,545.90	124,807.66	4,427,982.44	1,092,345.93

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EXHIBIT D.3

Southwest BART Plaza (Plaza B)

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EXHIBIT D.3

Summary of Results - 1979 Mission Street - SOUTHWEST
BART PLAZA 'B'
(Updated datum - FINAL DESIGN)

1979 Mission Street - SOUTHWEST BART PLAZA 'B'
Summary of Results

cadp annualized net new shadow	62,329.62	Sq ft hrs
Annual Available Sunlight (AAS), based on City's AAS Factor	32,295,797.76	Sq ft hrs
Annual Shadow Increase as a Percentage of AAS	0.193%	0.23%

Exisitng Shadow Load

Annulaized Existing Shadow	10,330,082.40	Sq ft hrs
Annual Available Sunlight (AAS), based on City's AAS Factor	32,295,797.76	Sq ft hrs
	31.9858%	

TOTAL Shadow	10,392,412.01
	32.179%

Quantitative Shadow Results - Impact Times

EXHIBIT D.3

1979 Mission Street - SOUTHWEST BART PLAZA 'B'

Date	Mirror	Date+Time	Duration	Duration Totals/day	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
21-Jun	None	1991.06.21 06:46:48	0:06:36		4,867.94	535.47	3,810.46	419.15	
		1991.06.21 07:00:00	0:13:48		5,346.82	1,229.77	2,749.51	632.39	
		1991.06.21 07:15:00	0:15:00	0:35:24	4,979.06	1,244.77	1,010.46	252.62	1,304.15
28-Jun	14-Jun	1991.06.28 06:48:35	0:06:00		4,921.15	492.12	3,757.25	375.73	
		1991.06.28 07:00:00	0:13:12		5,314.15	1,169.11	2,813.85	619.05	
		1991.06.28 07:15:00	0:15:00	0:34:12	5,167.39	1,291.85	1,170.58	292.65	1,287.42
5-Jul	7-Jul	1991.07.05 06:52:12	0:03:36		5,087.21	305.23	3,494.92	209.70	
		1991.07.05 07:00:00	0:11:24		5,360.18	1,018.43	2,680.21	509.24	
		1991.07.05 07:15:00	0:15:00	0:30:00	5,533.91	1,383.48	1,149.80	287.45	1,006.39
12-Jul	31-May	1991.07.12 06:56:24	0:01:48		5,360.18	160.81	2,730.21	81.91	
		1991.07.12 07:00:00	0:09:00		5,486.89	823.03	2,355.03	353.25	
		1991.07.12 07:15:00	0:15:00	0:25:48	6,026.89	1,506.72	892.66	223.17	658.33
19-Jul	24-May	1991.07.19 07:01:11	0:07:48		5,731.15	745.05	1,691.78	219.93	
		1991.07.19 07:16:11	0:14:24	0:22:12	6,265.22	1,503.65	382.11	91.71	311.64
26-Jul	17-May	1991.07.26 07:07:12	0:03:36		6,190.23	371.41	509.81	30.59	
		1991.07.26 07:15:00	0:11:24	0:15:00	6,453.55	1,226.18	94.79	18.01	48.60
								31,293.42	4,616.52



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

EXHIBIT D.3

1979 Mission Street - SOUTHWEST BART PLAZA 'B'

FULL RESULTS

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	1991.06.21 06:46:48	0:06:36	4,867.94	535.47	3,810.46	419.15	0.00	0.00
172	1991.06.21 07:00:00	0:13:48	5,346.82	1,229.77	2,749.51	632.39	582.07	133.88
172	1991.06.21 07:15:00	0:15:00	4,979.06	1,244.77	1,010.46	252.62	2,688.88	672.22
172	1991.06.21 07:30:00	0:15:00	3,890.89	972.72	0.00	0.00	4,787.51	1,196.88
172	1991.06.21 07:45:00	0:15:00	2,808.66	702.16	0.00	0.00	5,869.74	1,467.44
172	1991.06.21 08:00:00	0:15:00	1,768.00	442.00	0.00	0.00	6,910.40	1,727.60
172	1991.06.21 08:15:00	0:15:00	771.64	192.91	0.00	0.00	7,906.76	1,976.69
172	1991.06.21 08:30:00	0:15:00	0.00	0.00	0.00	0.00	8,678.40	2,169.60
172	1991.06.21 08:45:00	0:15:00	0.00	0.00	0.00	0.00	8,678.40	2,169.60
172	1991.06.21 09:00:00	0:15:00	0.00	0.00	0.00	0.00	8,678.40	2,169.60
172	1991.06.21 09:15:00	0:15:00	3.22	0.80	0.00	0.00	8,675.18	2,168.80
172	1991.06.21 09:30:00	0:15:00	8.41	2.10	0.00	0.00	8,669.99	2,167.50
172	1991.06.21 09:45:00	0:15:00	11.38	2.85	0.00	0.00	8,667.02	2,166.75
172	1991.06.21 10:00:00	0:15:00	16.33	4.08	0.00	0.00	8,662.07	2,165.52
172	1991.06.21 10:15:00	0:15:00	18.81	4.70	0.00	0.00	8,659.59	2,164.90
172	1991.06.21 10:30:00	0:15:00	26.98	6.74	0.00	0.00	8,651.43	2,162.86
172	1991.06.21 10:45:00	0:15:00	52.47	13.12	0.00	0.00	8,625.93	2,156.48
172	1991.06.21 11:00:00	0:15:00	70.78	17.70	0.00	0.00	8,607.62	2,151.91
172	1991.06.21 11:15:00	0:15:00	96.52	24.13	0.00	0.00	8,581.88	2,145.47
172	1991.06.21 11:30:00	0:15:00	110.62	27.66	0.00	0.00	8,567.78	2,141.94
172	1991.06.21 11:45:00	0:15:00	131.91	32.98	0.00	0.00	8,546.49	2,136.62
172	1991.06.21 12:00:00	0:15:00	136.86	34.21	0.00	0.00	8,541.54	2,135.39
172	1991.06.21 12:15:00	0:15:00	155.42	38.85	0.00	0.00	8,522.98	2,130.75
172	1991.06.21 12:30:00	0:15:00	155.91	38.98	0.00	0.00	8,522.49	2,130.62
172	1991.06.21 12:45:00	0:15:00	172.49	43.12	0.00	0.00	8,505.91	2,126.48
172	1991.06.21 13:00:00	0:15:00	168.29	42.07	0.00	0.00	8,510.11	2,127.53
172	1991.06.21 13:15:00	0:15:00	184.13	46.03	0.00	0.00	8,494.28	2,123.57
172	1991.06.21 13:30:00	0:15:00	182.89	45.72	0.00	0.00	8,495.51	2,123.88
172	1991.06.21 13:45:00	0:15:00	202.69	50.67	0.00	0.00	8,475.71	2,118.93
172	1991.06.21 14:00:00	0:15:00	268.27	67.07	0.00	0.00	8,410.13	2,102.53
172	1991.06.21 14:15:00	0:15:00	345.73	86.43	0.00	0.00	8,332.67	2,083.17
172	1991.06.21 14:30:00	0:15:00	427.15	106.79	0.00	0.00	8,251.25	2,062.81
172	1991.06.21 14:45:00	0:15:00	547.18	136.80	0.00	0.00	8,131.22	2,032.81
172	1991.06.21 15:00:00	0:15:00	662.75	165.69	0.00	0.00	8,015.65	2,003.91
172	1991.06.21 15:15:00	0:15:00	806.79	201.70	0.00	0.00	7,871.61	1,967.90
172	1991.06.21 15:30:00	0:15:00	961.71	240.43	0.00	0.00	7,716.69	1,929.17
172	1991.06.21 15:45:00	0:15:00	1,126.78	281.70	0.00	0.00	7,551.62	1,887.91
172	1991.06.21 16:00:00	0:15:00	1,321.30	330.33	0.00	0.00	7,357.10	1,839.28
172	1991.06.21 16:15:00	0:15:00	1,523.49	380.87	0.00	0.00	7,154.91	1,788.73
172	1991.06.21 16:30:00	0:15:00	1,721.72	430.43	0.00	0.00	6,956.68	1,739.17
172	1991.06.21 16:45:00	0:15:00	1,919.95	479.99	0.00	0.00	6,758.45	1,689.61
172	1991.06.21 17:00:00	0:15:00	2,136.50	534.13	0.00	0.00	6,541.90	1,635.48
172	1991.06.21 17:15:00	0:15:00	2,408.48	602.12	0.00	0.00	6,269.92	1,567.48
172	1991.06.21 17:30:00	0:15:00	2,704.72	676.18	0.00	0.00	5,973.69	1,493.42
172	1991.06.21 17:45:00	0:15:00	3,052.67	763.17	0.00	0.00	5,625.73	1,406.43
172	1991.06.21 18:00:00	0:15:00	3,437.51	859.38	0.00	0.00	5,240.90	1,310.22
172	1991.06.21 18:15:00	0:15:00	3,878.02	969.51	0.00	0.00	4,800.38	1,200.10
172	1991.06.21 18:30:00	0:15:00	4,401.44	1,100.36	0.00	0.00	4,276.96	1,069.24
172	1991.06.21 18:45:00	0:15:00	5,016.93	1,254.23	0.00	0.00	3,661.48	915.37
172	1991.06.21 19:00:00	0:15:00	5,800.45	1,450.11	0.00	0.00	2,877.95	719.49
172	1991.06.21 19:15:00	0:18:00	7,489.75	2,246.93	0.00	0.00	1,188.65	356.60

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	1991.06.21 19:36:00	0:10:48	8,678.40	1,562.11	0.00	0.00	0.00	0.00
179	1991.06.28 06:48:35	0:06:00	4,921.15	492.12	3,757.25	375.73	0.00	0.00
179	1991.06.28 07:00:00	0:13:12	5,314.15	1,169.11	2,813.85	619.05	550.40	121.09
179	1991.06.28 07:15:00	0:15:00	5,167.39	1,291.85	1,170.58	292.65	2,340.42	585.11
179	1991.06.28 07:30:00	0:15:00	4,065.61	1,016.40	0.00	0.00	4,612.79	1,153.20
179	1991.06.28 07:45:00	0:15:00	2,968.03	742.01	0.00	0.00	5,710.37	1,427.59
179	1991.06.28 08:00:00	0:15:00	1,919.21	479.80	0.00	0.00	6,759.19	1,689.80
179	1991.06.28 08:15:00	0:15:00	904.54	226.14	0.00	0.00	7,773.86	1,943.47
179	1991.06.28 08:30:00	0:15:00	8.41	2.10	0.00	0.00	8,669.99	2,167.50
179	1991.06.28 08:45:00	0:15:00	0.00	0.00	0.00	0.00	8,678.40	2,169.60
179	1991.06.28 09:00:00	0:15:00	0.00	0.00	0.00	0.00	8,678.40	2,169.60
179	1991.06.28 09:15:00	0:15:00	3.47	0.87	0.00	0.00	8,674.94	2,168.73
179	1991.06.28 09:30:00	0:15:00	8.41	2.10	0.00	0.00	8,669.99	2,167.50
179	1991.06.28 09:45:00	0:15:00	11.38	2.85	0.00	0.00	8,667.02	2,166.75
179	1991.06.28 10:00:00	0:15:00	16.33	4.08	0.00	0.00	8,662.07	2,165.52
179	1991.06.28 10:15:00	0:15:00	19.30	4.83	0.00	0.00	8,659.10	2,164.77
179	1991.06.28 10:30:00	0:15:00	27.97	6.99	0.00	0.00	8,650.44	2,162.61
179	1991.06.28 10:45:00	0:15:00	54.45	13.61	0.00	0.00	8,623.96	2,155.99
179	1991.06.28 11:00:00	0:15:00	73.25	18.31	0.00	0.00	8,605.15	2,151.29
179	1991.06.28 11:15:00	0:15:00	98.99	24.75	0.00	0.00	8,579.41	2,144.85
179	1991.06.28 11:30:00	0:15:00	113.35	28.34	0.00	0.00	8,565.05	2,141.26
179	1991.06.28 11:45:00	0:15:00	134.63	33.66	0.00	0.00	8,543.77	2,135.94
179	1991.06.28 12:00:00	0:15:00	140.82	35.20	0.00	0.00	8,537.58	2,134.40
179	1991.06.28 12:15:00	0:15:00	159.38	39.84	0.00	0.00	8,519.02	2,129.76
179	1991.06.28 12:30:00	0:15:00	159.63	39.91	0.00	0.00	8,518.78	2,129.69
179	1991.06.28 12:45:00	0:15:00	176.21	44.05	0.00	0.00	8,502.19	2,125.55
179	1991.06.28 13:00:00	0:15:00	172.99	43.25	0.00	0.00	8,505.41	2,126.35
179	1991.06.28 13:15:00	0:15:00	188.09	47.02	0.00	0.00	8,490.32	2,122.58
179	1991.06.28 13:30:00	0:15:00	185.61	46.40	0.00	0.00	8,492.79	2,123.20
179	1991.06.28 13:45:00	0:15:00	204.42	51.11	0.00	0.00	8,473.98	2,118.50
179	1991.06.28 14:00:00	0:15:00	259.11	64.78	0.00	0.00	8,419.29	2,104.82
179	1991.06.28 14:15:00	0:15:00	344.49	86.12	0.00	0.00	8,333.91	2,083.48
179	1991.06.28 14:30:00	0:15:00	424.92	106.23	0.00	0.00	8,253.48	2,063.37
179	1991.06.28 14:45:00	0:15:00	545.45	136.36	0.00	0.00	8,132.95	2,033.24
179	1991.06.28 15:00:00	0:15:00	658.30	164.58	0.00	0.00	8,020.10	2,005.03
179	1991.06.28 15:15:00	0:15:00	794.17	198.54	0.00	0.00	7,884.24	1,971.06
179	1991.06.28 15:30:00	0:15:00	947.85	236.96	0.00	0.00	7,730.55	1,932.64
179	1991.06.28 15:45:00	0:15:00	1,112.18	278.04	0.00	0.00	7,566.22	1,891.56
179	1991.06.28 16:00:00	0:15:00	1,307.69	326.92	0.00	0.00	7,370.71	1,842.68
179	1991.06.28 16:15:00	0:15:00	1,508.39	377.10	0.00	0.00	7,170.01	1,792.50
179	1991.06.28 16:30:00	0:15:00	1,708.61	427.15	0.00	0.00	6,969.80	1,742.45
179	1991.06.28 16:45:00	0:15:00	1,906.84	476.71	0.00	0.00	6,771.56	1,692.89
179	1991.06.28 17:00:00	0:15:00	2,116.95	529.24	0.00	0.00	6,561.45	1,640.36
179	1991.06.28 17:15:00	0:15:00	2,386.21	596.55	0.00	0.00	6,292.19	1,573.05
179	1991.06.28 17:30:00	0:15:00	2,684.42	671.11	0.00	0.00	5,993.98	1,498.50
179	1991.06.28 17:45:00	0:15:00	3,027.18	756.80	0.00	0.00	5,651.22	1,412.81
179	1991.06.28 18:00:00	0:15:00	3,416.47	854.12	0.00	0.00	5,261.93	1,315.48
179	1991.06.28 18:15:00	0:15:00	3,850.55	962.64	0.00	0.00	4,827.85	1,206.96
179	1991.06.28 18:30:00	0:15:00	4,361.85	1,090.46	0.00	0.00	4,316.56	1,079.14
179	1991.06.28 18:45:00	0:15:00	4,982.77	1,245.69	0.00	0.00	3,695.63	923.91
179	1991.06.28 19:00:00	0:15:00	5,770.75	1,442.69	0.00	0.00	2,907.65	726.91
179	1991.06.28 19:15:00	0:18:00	7,282.61	2,184.78	0.00	0.00	1,395.79	418.74
179	1991.06.28 19:36:36	0:10:48	8,678.40	1,562.11	0.00	0.00	0.00	0.00
186	1991.07.05 06:52:12	0:03:36	5,087.21	305.23	3,494.92	209.70	96.27	5.78
186	1991.07.05 07:00:00	0:11:24	5,360.18	1,018.43	2,680.21	509.24	638.01	121.22
186	1991.07.05 07:15:00	0:15:00	5,533.91	1,383.48	1,149.80	287.45	1,994.69	498.67
186	1991.07.05 07:30:00	0:15:00	4,383.87	1,095.97	0.00	0.00	4,294.53	1,073.63

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
186	1991.07.05 07:45:00	0:15:00	3,236.80	809.20	0.00	0.00	5,441.60	1,360.40
186	1991.07.05 08:00:00	0:15:00	2,155.31	538.83	0.00	0.00	6,523.09	1,630.77
186	1991.07.05 08:15:00	0:15:00	1,106.73	276.68	0.00	0.00	7,571.67	1,892.92
186	1991.07.05 08:30:00	0:15:00	136.11	34.03	0.00	0.00	8,542.29	2,135.57
186	1991.07.05 08:45:00	0:15:00	0.00	0.00	0.00	0.00	8,678.40	2,169.60
186	1991.07.05 09:00:00	0:15:00	0.25	0.06	0.00	0.00	8,678.15	2,169.54
186	1991.07.05 09:15:00	0:15:00	3.47	0.87	0.00	0.00	8,674.94	2,168.73
186	1991.07.05 09:30:00	0:15:00	10.39	2.60	0.00	0.00	8,668.01	2,167.00
186	1991.07.05 09:45:00	0:15:00	12.37	3.09	0.00	0.00	8,666.03	2,166.51
186	1991.07.05 10:00:00	0:15:00	16.83	4.21	0.00	0.00	8,661.57	2,165.39
186	1991.07.05 10:15:00	0:15:00	20.29	5.07	0.00	0.00	8,658.11	2,164.53
186	1991.07.05 10:30:00	0:15:00	38.36	9.59	0.00	0.00	8,640.04	2,160.01
186	1991.07.05 10:45:00	0:15:00	67.32	16.83	0.00	0.00	8,611.09	2,152.77
186	1991.07.05 11:00:00	0:15:00	86.87	21.72	0.00	0.00	8,591.54	2,147.88
186	1991.07.05 11:15:00	0:15:00	111.61	27.90	0.00	0.00	8,566.79	2,141.70
186	1991.07.05 11:30:00	0:15:00	127.95	31.99	0.00	0.00	8,550.45	2,137.61
186	1991.07.05 11:45:00	0:15:00	149.23	37.31	0.00	0.00	8,529.17	2,132.29
186	1991.07.05 12:00:00	0:15:00	155.67	38.92	0.00	0.00	8,522.74	2,130.68
186	1991.07.05 12:15:00	0:15:00	172.25	43.06	0.00	0.00	8,506.15	2,126.54
186	1991.07.05 12:30:00	0:15:00	173.98	43.50	0.00	0.00	8,504.42	2,126.11
186	1991.07.05 12:45:00	0:15:00	189.08	47.27	0.00	0.00	8,489.33	2,122.33
186	1991.07.05 13:00:00	0:15:00	185.36	46.34	0.00	0.00	8,493.04	2,123.26
186	1991.07.05 13:15:00	0:15:00	200.95	50.24	0.00	0.00	8,477.45	2,119.36
186	1991.07.05 13:30:00	0:15:00	199.72	49.93	0.00	0.00	8,478.68	2,119.67
186	1991.07.05 13:45:00	0:15:00	214.07	53.52	0.00	0.00	8,464.33	2,116.08
186	1991.07.05 14:00:00	0:15:00	270.25	67.56	0.00	0.00	8,408.15	2,102.04
186	1991.07.05 14:15:00	0:15:00	355.88	88.97	0.00	0.00	8,322.52	2,080.63
186	1991.07.05 14:30:00	0:15:00	436.80	109.20	0.00	0.00	8,241.60	2,060.40
186	1991.07.05 14:45:00	0:15:00	556.09	139.02	0.00	0.00	8,122.31	2,030.58
186	1991.07.05 15:00:00	0:15:00	667.21	166.80	0.00	0.00	8,011.19	2,002.80
186	1991.07.05 15:15:00	0:15:00	799.36	199.84	0.00	0.00	7,879.04	1,969.76
186	1991.07.05 15:30:00	0:15:00	943.15	235.79	0.00	0.00	7,735.25	1,933.81
186	1991.07.05 15:45:00	0:15:00	1,113.17	278.29	0.00	0.00	7,565.23	1,891.31
186	1991.07.05 16:00:00	0:15:00	1,304.47	326.12	0.00	0.00	7,373.93	1,843.48
186	1991.07.05 16:15:00	0:15:00	1,507.65	376.91	0.00	0.00	7,170.75	1,792.69
186	1991.07.05 16:30:00	0:15:00	1,710.34	427.59	0.00	0.00	6,968.06	1,742.02
186	1991.07.05 16:45:00	0:15:00	1,919.95	479.99	0.00	0.00	6,758.45	1,689.61
186	1991.07.05 17:00:00	0:15:00	2,126.60	531.65	0.00	0.00	6,551.80	1,637.95
186	1991.07.05 17:15:00	0:15:00	2,384.97	596.24	0.00	0.00	6,293.43	1,573.36
186	1991.07.05 17:30:00	0:15:00	2,691.35	672.84	0.00	0.00	5,987.05	1,496.76
186	1991.07.05 17:45:00	0:15:00	3,039.06	759.77	0.00	0.00	5,639.34	1,409.84
186	1991.07.05 18:00:00	0:15:00	3,432.31	858.08	0.00	0.00	5,246.09	1,311.52
186	1991.07.05 18:15:00	0:15:00	3,876.04	969.01	0.00	0.00	4,802.36	1,200.59
186	1991.07.05 18:30:00	0:15:00	4,402.43	1,100.61	0.00	0.00	4,275.97	1,068.99
186	1991.07.05 18:45:00	0:15:00	5,034.99	1,258.75	0.00	0.00	3,643.41	910.85
186	1991.07.05 19:00:00	0:15:00	5,832.13	1,458.03	0.00	0.00	2,846.27	711.57
186	1991.07.05 19:15:00	0:18:00	7,214.06	2,164.22	0.00	0.00	1,464.34	439.30
186	1991.07.05 19:36:00	0:10:48	8,678.40	1,562.11	0.00	0.00	0.00	0.00
193	1991.07.12 06:56:24	0:01:48	5,360.18	160.81	2,730.21	81.91	588.01	17.64
193	1991.07.12 07:00:00	0:09:00	5,486.89	823.03	2,355.03	353.25	836.48	125.47
193	1991.07.12 07:15:00	0:15:00	6,026.89	1,506.72	892.66	223.17	1,758.84	439.71
193	1991.07.12 07:30:00	0:15:00	4,865.47	1,216.37	0.00	0.00	3,812.93	953.23
193	1991.07.12 07:45:00	0:15:00	3,627.08	906.77	0.00	0.00	5,051.33	1,262.83
193	1991.07.12 08:00:00	0:15:00	2,475.30	618.83	0.00	0.00	6,203.10	1,550.78
193	1991.07.12 08:15:00	0:15:00	1,386.39	346.60	0.00	0.00	7,292.01	1,823.00
193	1991.07.12 08:30:00	0:15:00	351.67	87.92	0.00	0.00	8,326.73	2,081.68
193	1991.07.12 08:45:00	0:15:00	0.00	0.00	0.00	0.00	8,678.40	2,169.60

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr	
193	1991.07.12 09:00:00	0:15:00		0.99	0.25	0.00	0.00	8,677.41	2,169.35
193	1991.07.12 09:15:00	0:15:00		3.96	0.99	0.00	0.00	8,674.44	2,168.61
193	1991.07.12 09:30:00	0:15:00		11.88	2.97	0.00	0.00	8,666.52	2,166.63
193	1991.07.12 09:45:00	0:15:00		15.10	3.77	0.00	0.00	8,663.30	2,165.83
193	1991.07.12 10:00:00	0:15:00		17.32	4.33	0.00	0.00	8,661.08	2,165.27
193	1991.07.12 10:15:00	0:15:00		33.41	8.35	0.00	0.00	8,644.99	2,161.25
193	1991.07.12 10:30:00	0:15:00		60.14	15.03	0.00	0.00	8,618.26	2,154.57
193	1991.07.12 10:45:00	0:15:00		89.34	22.34	0.00	0.00	8,589.06	2,147.27
193	1991.07.12 11:00:00	0:15:00		110.13	27.53	0.00	0.00	8,568.27	2,142.07
193	1991.07.12 11:15:00	0:15:00		136.86	34.21	0.00	0.00	8,541.54	2,135.39
193	1991.07.12 11:30:00	0:15:00		151.95	37.99	0.00	0.00	8,526.45	2,131.61
193	1991.07.12 11:45:00	0:15:00		173.24	43.31	0.00	0.00	8,505.16	2,126.29
193	1991.07.12 12:00:00	0:15:00		178.43	44.61	0.00	0.00	8,499.97	2,124.99
193	1991.07.12 12:15:00	0:15:00		196.01	49.00	0.00	0.00	8,482.40	2,120.60
193	1991.07.12 12:30:00	0:15:00		196.25	49.06	0.00	0.00	8,482.15	2,120.54
193	1991.07.12 12:45:00	0:15:00		213.08	53.27	0.00	0.00	8,465.32	2,116.33
193	1991.07.12 13:00:00	0:15:00		209.37	52.34	0.00	0.00	8,469.03	2,117.26
193	1991.07.12 13:15:00	0:15:00		224.96	56.24	0.00	0.00	8,453.44	2,113.36
193	1991.07.12 13:30:00	0:15:00		223.97	55.99	0.00	0.00	8,454.43	2,113.61
193	1991.07.12 13:45:00	0:15:00		237.83	59.46	0.00	0.00	8,440.57	2,110.14
193	1991.07.12 14:00:00	0:15:00		292.77	73.19	0.00	0.00	8,385.63	2,096.41
193	1991.07.12 14:15:00	0:15:00		379.88	94.97	0.00	0.00	8,298.52	2,074.63
193	1991.07.12 14:30:00	0:15:00		459.57	114.89	0.00	0.00	8,218.83	2,054.71
193	1991.07.12 14:45:00	0:15:00		581.58	145.40	0.00	0.00	8,096.82	2,024.21
193	1991.07.12 15:00:00	0:15:00		693.94	173.48	0.00	0.00	7,984.47	1,996.12
193	1991.07.12 15:15:00	0:15:00		824.36	206.09	0.00	0.00	7,854.04	1,963.51
193	1991.07.12 15:30:00	0:15:00		954.29	238.57	0.00	0.00	7,724.12	1,931.03
193	1991.07.12 15:45:00	0:15:00		1,119.60	279.90	0.00	0.00	7,558.80	1,889.70
193	1991.07.12 16:00:00	0:15:00		1,313.38	328.35	0.00	0.00	7,365.02	1,841.26
193	1991.07.12 16:15:00	0:15:00		1,522.01	380.50	0.00	0.00	7,156.40	1,789.10
193	1991.07.12 16:30:00	0:15:00		1,732.36	433.09	0.00	0.00	6,946.04	1,736.51
193	1991.07.12 16:45:00	0:15:00		1,948.91	487.23	0.00	0.00	6,729.49	1,682.37
193	1991.07.12 17:00:00	0:15:00		2,158.53	539.63	0.00	0.00	6,519.88	1,629.97
193	1991.07.12 17:15:00	0:15:00		2,399.82	599.96	0.00	0.00	6,278.58	1,569.65
193	1991.07.12 17:30:00	0:15:00		2,722.04	680.51	0.00	0.00	5,956.36	1,489.09
193	1991.07.12 17:45:00	0:15:00		3,081.13	770.28	0.00	0.00	5,597.27	1,399.32
193	1991.07.12 18:00:00	0:15:00		3,483.04	870.76	0.00	0.00	5,195.36	1,298.84
193	1991.07.12 18:15:00	0:15:00		3,946.57	986.64	0.00	0.00	4,731.83	1,182.96
193	1991.07.12 18:30:00	0:15:00		4,503.40	1,125.85	0.00	0.00	4,175.00	1,043.75
193	1991.07.12 18:45:00	0:15:00		5,168.14	1,292.03	0.00	0.00	3,510.26	877.57
193	1991.07.12 19:00:00	0:15:00		6,009.82	1,502.45	0.00	0.00	2,668.58	667.15
193	1991.07.12 19:15:00	0:16:48		7,343.99	2,056.32	0.00	0.00	1,334.42	373.64
193	1991.07.12 19:33:36	0:09:00		8,640.29	1,296.04	0.00	0.00	38.11	5.72
200	1991.07.19 07:01:11	0:07:48		5,731.15	745.05	1,691.78	219.93	1,255.47	163.21
200	1991.07.19 07:16:11	0:14:24		6,265.22	1,503.65	382.11	91.71	2,031.07	487.46
200	1991.07.19 07:30:00	0:14:24		5,526.74	1,326.42	0.00	0.00	3,151.67	756.40
200	1991.07.19 07:45:00	0:15:00		4,135.90	1,033.97	0.00	0.00	4,542.51	1,135.63
200	1991.07.19 08:00:00	0:15:00		2,915.32	728.83	0.00	0.00	5,763.08	1,440.77
200	1991.07.19 08:15:00	0:15:00		1,736.32	434.08	0.00	0.00	6,942.08	1,735.52
200	1991.07.19 08:30:00	0:15:00		628.60	157.15	0.00	0.00	8,049.80	2,012.45
200	1991.07.19 08:45:00	0:15:00		0.00	0.00	0.00	0.00	8,678.40	2,169.60
200	1991.07.19 09:00:00	0:15:00		3.71	0.93	0.00	0.00	8,674.69	2,168.67
200	1991.07.19 09:15:00	0:15:00		9.40	2.35	0.00	0.00	8,669.00	2,167.25
200	1991.07.19 09:30:00	0:15:00		12.37	3.09	0.00	0.00	8,666.03	2,166.51
200	1991.07.19 09:45:00	0:15:00		16.58	4.15	0.00	0.00	8,661.82	2,165.46
200	1991.07.19 10:00:00	0:15:00		29.95	7.49	0.00	0.00	8,648.46	2,162.11
200	1991.07.19 10:15:00	0:15:00		65.58	16.40	0.00	0.00	8,612.82	2,153.20

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
200	1991.07.19 10:30:00	0:15:00		93.05	23.26	0.00	0.00	8,585.35
200	1991.07.19 10:45:00	0:15:00		123.99	31.00	0.00	0.00	8,554.41
200	1991.07.19 11:00:00	0:15:00		145.02	36.26	0.00	0.00	8,533.38
200	1991.07.19 11:15:00	0:15:00		172.25	43.06	0.00	0.00	8,506.15
200	1991.07.19 11:30:00	0:15:00		185.61	46.40	0.00	0.00	8,492.79
200	1991.07.19 11:45:00	0:15:00		206.15	51.54	0.00	0.00	8,472.25
200	1991.07.19 12:00:00	0:15:00		212.83	53.21	0.00	0.00	8,465.57
200	1991.07.19 12:15:00	0:15:00		231.15	57.79	0.00	0.00	8,447.25
200	1991.07.19 12:30:00	0:15:00		231.89	57.97	0.00	0.00	8,446.51
200	1991.07.19 12:45:00	0:15:00		246.74	61.69	0.00	0.00	8,431.66
200	1991.07.19 13:00:00	0:15:00		243.77	60.94	0.00	0.00	8,434.63
200	1991.07.19 13:15:00	0:15:00		258.62	64.65	0.00	0.00	8,419.78
200	1991.07.19 13:30:00	0:15:00		258.37	64.59	0.00	0.00	8,420.03
200	1991.07.19 13:45:00	0:15:00		272.23	68.06	0.00	0.00	8,406.17
200	1991.07.19 14:00:00	0:15:00		329.64	82.41	0.00	0.00	8,348.76
200	1991.07.19 14:15:00	0:15:00		416.02	104.00	0.00	0.00	8,262.39
200	1991.07.19 14:30:00	0:15:00		497.44	124.36	0.00	0.00	8,180.96
200	1991.07.19 14:45:00	0:15:00		619.69	154.92	0.00	0.00	8,058.71
200	1991.07.19 15:00:00	0:15:00		733.29	183.32	0.00	0.00	7,945.12
200	1991.07.19 15:15:00	0:15:00		862.72	215.68	0.00	0.00	7,815.68
200	1991.07.19 15:30:00	0:15:00		1,001.06	250.27	0.00	0.00	7,677.34
200	1991.07.19 15:45:00	0:15:00		1,149.80	287.45	0.00	0.00	7,528.61
200	1991.07.19 16:00:00	0:15:00		1,338.38	334.59	0.00	0.00	7,340.03
200	1991.07.19 16:15:00	0:15:00		1,554.18	388.54	0.00	0.00	7,124.22
200	1991.07.19 16:30:00	0:15:00		1,767.26	441.82	0.00	0.00	6,911.14
200	1991.07.19 16:45:00	0:15:00		1,995.68	498.92	0.00	0.00	6,682.72
200	1991.07.19 17:00:00	0:15:00		2,223.37	555.84	0.00	0.00	6,455.04
200	1991.07.19 17:15:00	0:15:00		2,454.76	613.69	0.00	0.00	6,223.64
200	1991.07.19 17:30:00	0:15:00		2,778.46	694.62	0.00	0.00	5,899.94
200	1991.07.19 17:45:00	0:15:00		3,166.76	791.69	0.00	0.00	5,511.64
200	1991.07.19 18:00:00	0:15:00		3,574.36	893.59	0.00	0.00	5,104.04
200	1991.07.19 18:15:00	0:15:00		4,082.44	1,020.61	0.00	0.00	4,595.96
200	1991.07.19 18:30:00	0:15:00		4,678.87	1,169.72	0.00	0.00	3,999.53
200	1991.07.19 18:45:00	0:15:00		5,407.45	1,351.86	0.00	0.00	3,270.95
200	1991.07.19 19:00:00	0:15:00		6,323.62	1,580.91	0.00	0.00	2,354.78
200	1991.07.19 19:15:00	0:15:00		7,639.72	1,909.93	0.00	0.00	1,038.68
200	1991.07.19 19:30:00	0:07:48		8,300.50	1,079.07	0.00	0.00	377.90
207	1991.07.26 07:07:12	0:03:36		6,190.23	371.41	509.81	30.59	1,978.36
207	1991.07.26 07:15:00	0:11:24		6,453.55	1,226.18	94.79	18.01	2,130.07
207	1991.07.26 07:30:00	0:15:00		6,374.11	1,593.53	0.00	0.00	2,304.29
207	1991.07.26 07:45:00	0:15:00		4,827.85	1,206.96	0.00	0.00	3,850.55
207	1991.07.26 08:00:00	0:15:00		3,452.85	863.21	0.00	0.00	5,225.55
207	1991.07.26 08:15:00	0:15:00		2,146.40	536.60	0.00	0.00	6,532.00
207	1991.07.26 08:30:00	0:15:00		955.52	238.88	0.00	0.00	7,722.88
207	1991.07.26 08:45:00	0:15:00		1.98	0.50	0.00	0.00	8,676.42
207	1991.07.26 09:00:00	0:15:00		4.70	1.18	0.00	0.00	8,673.70
207	1991.07.26 09:15:00	0:15:00		11.63	2.91	0.00	0.00	8,666.77
207	1991.07.26 09:30:00	0:15:00		16.09	4.02	0.00	0.00	8,662.31
207	1991.07.26 09:45:00	0:15:00		37.12	9.28	0.00	0.00	8,641.28
207	1991.07.26 10:00:00	0:15:00		73.25	18.31	0.00	0.00	8,605.15
207	1991.07.26 10:15:00	0:15:00		110.62	27.66	0.00	0.00	8,567.78
207	1991.07.26 10:30:00	0:15:00		138.84	34.71	0.00	0.00	8,539.56
207	1991.07.26 10:45:00	0:15:00		169.52	42.38	0.00	0.00	8,508.88
207	1991.07.26 11:00:00	0:15:00		192.05	48.01	0.00	0.00	8,486.36
207	1991.07.26 11:15:00	0:15:00		217.78	54.45	0.00	0.00	8,460.62
207	1991.07.26 11:30:00	0:15:00		231.15	57.79	0.00	0.00	8,447.25
207	1991.07.26 11:45:00	0:15:00		252.68	63.17	0.00	0.00	8,425.72

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
207	1991.07.26 12:00:00	0:15:00		256.39	64.10	0.00	8,422.01	2,105.50
207	1991.07.26 12:15:00	0:15:00		273.22	68.31	0.00	8,405.18	2,101.30
207	1991.07.26 12:30:00	0:15:00		273.47	68.37	0.00	8,404.93	2,101.23
207	1991.07.26 12:45:00	0:15:00		290.30	72.57	0.00	8,388.11	2,097.03
207	1991.07.26 13:00:00	0:15:00		288.07	72.02	0.00	8,390.33	2,097.58
207	1991.07.26 13:15:00	0:15:00		303.16	75.79	0.00	8,375.24	2,093.81
207	1991.07.26 13:30:00	0:15:00		301.93	75.48	0.00	8,376.47	2,094.12
207	1991.07.26 13:45:00	0:15:00		315.04	78.76	0.00	8,363.36	2,090.84
207	1991.07.26 14:00:00	0:15:00		374.69	93.67	0.00	8,303.72	2,075.93
207	1991.07.26 14:15:00	0:15:00		461.80	115.45	0.00	8,216.60	2,054.15
207	1991.07.26 14:30:00	0:15:00		549.65	137.41	0.00	8,128.75	2,032.19
207	1991.07.26 14:45:00	0:15:00		673.89	168.47	0.00	8,004.51	2,001.13
207	1991.07.26 15:00:00	0:15:00		789.22	197.30	0.00	7,889.19	1,972.30
207	1991.07.26 15:15:00	0:15:00		931.02	232.76	0.00	7,747.38	1,936.85
207	1991.07.26 15:30:00	0:15:00		1,057.24	264.31	0.00	7,621.16	1,905.29
207	1991.07.26 15:45:00	0:15:00		1,213.65	303.41	0.00	7,464.76	1,866.19
207	1991.07.26 16:00:00	0:15:00		1,388.61	347.15	0.00	7,289.79	1,822.45
207	1991.07.26 16:15:00	0:15:00		1,598.48	399.62	0.00	7,079.92	1,769.98
207	1991.07.26 16:30:00	0:15:00		1,824.43	456.11	0.00	6,853.97	1,713.49
207	1991.07.26 16:45:00	0:15:00		2,063.49	515.87	0.00	6,614.91	1,653.73
207	1991.07.26 17:00:00	0:15:00		2,314.19	578.55	0.00	6,364.21	1,591.05
207	1991.07.26 17:15:00	0:15:00		2,561.18	640.29	0.00	6,117.22	1,529.31
207	1991.07.26 17:30:00	0:15:00		2,863.60	715.90	0.00	5,814.80	1,453.70
207	1991.07.26 17:45:00	0:15:00		3,278.62	819.66	0.00	5,399.78	1,349.95
207	1991.07.26 18:00:00	0:15:00		3,720.38	930.09	0.00	4,958.03	1,239.51
207	1991.07.26 18:15:00	0:15:00		4,281.41	1,070.35	0.00	4,396.99	1,099.25
207	1991.07.26 18:30:00	0:15:00		4,951.84	1,237.96	0.00	3,726.56	931.64
207	1991.07.26 18:45:00	0:15:00		5,764.81	1,441.20	0.00	2,913.59	728.40
207	1991.07.26 19:00:00	0:15:00		6,812.64	1,703.16	0.00	1,865.76	466.44
207	1991.07.26 19:15:00	0:12:36		7,683.03	1,613.44	0.00	995.37	209.03
207	1991.07.26 19:25:12	0:05:24		7,909.23	711.83	0.00	769.17	69.23
214	1991.08.02 07:12:36	0:01:12		6,724.05	134.48	0.00	1,954.35	39.09
214	1991.08.02 07:15:00	0:09:00		6,802.25	1,020.34	0.00	1,876.15	281.42
214	1991.08.02 07:30:00	0:15:00		7,336.31	1,834.08	0.00	1,342.09	335.52
214	1991.08.02 07:45:00	0:15:00		5,699.97	1,424.99	0.00	2,978.43	744.61
214	1991.08.02 08:00:00	0:15:00		4,112.14	1,028.03	0.00	4,566.26	1,141.57
214	1991.08.02 08:15:00	0:15:00		2,596.57	649.14	0.00	6,081.83	1,520.46
214	1991.08.02 08:30:00	0:15:00		1,299.03	324.76	0.00	7,379.38	1,844.84
214	1991.08.02 08:45:00	0:15:00		212.83	53.21	0.00	8,465.57	2,116.39
214	1991.08.02 09:00:00	0:15:00		12.62	3.16	0.00	8,665.78	2,166.45
214	1991.08.02 09:15:00	0:15:00		16.09	4.02	0.00	8,662.31	2,165.58
214	1991.08.02 09:30:00	0:15:00		49.25	12.31	0.00	8,629.15	2,157.29
214	1991.08.02 09:45:00	0:15:00		94.79	23.70	0.00	8,583.62	2,145.90
214	1991.08.02 10:00:00	0:15:00		131.66	32.92	0.00	8,546.74	2,136.69
214	1991.08.02 10:15:00	0:15:00		168.53	42.13	0.00	8,509.87	2,127.47
214	1991.08.02 10:30:00	0:15:00		196.75	49.19	0.00	8,481.65	2,120.41
214	1991.08.02 10:45:00	0:15:00		226.45	56.61	0.00	8,451.96	2,112.99
214	1991.08.02 11:00:00	0:15:00		249.46	62.37	0.00	8,428.94	2,107.24
214	1991.08.02 11:15:00	0:15:00		274.70	68.68	0.00	8,403.70	2,100.92
214	1991.08.02 11:30:00	0:15:00		286.34	71.58	0.00	8,392.07	2,098.02
214	1991.08.02 11:45:00	0:15:00		305.14	76.29	0.00	8,373.26	2,093.31
214	1991.08.02 12:00:00	0:15:00		308.11	77.03	0.00	8,370.29	2,092.57
214	1991.08.02 12:15:00	0:15:00		324.20	81.05	0.00	8,354.20	2,088.55
214	1991.08.02 12:30:00	0:15:00		325.68	81.42	0.00	8,352.72	2,088.18
214	1991.08.02 12:45:00	0:15:00		339.54	84.89	0.00	8,338.86	2,084.71
214	1991.08.02 13:00:00	0:15:00		338.31	84.58	0.00	8,340.09	2,085.02
214	1991.08.02 13:15:00	0:15:00		352.91	88.23	0.00	8,325.49	2,081.37

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
214	1991.08.02 13:30:00	0:15:00		353.90	88.47	0.00	0.00	8,324.50
214	1991.08.02 13:45:00	0:15:00		367.01	91.75	0.00	0.00	8,311.39
214	1991.08.02 14:00:00	0:15:00		434.82	108.71	0.00	0.00	8,243.58
214	1991.08.02 14:15:00	0:15:00		520.70	130.18	0.00	0.00	8,157.70
214	1991.08.02 14:30:00	0:15:00		616.23	154.06	0.00	0.00	8,062.17
214	1991.08.02 14:45:00	0:15:00		749.12	187.28	0.00	0.00	7,929.28
214	1991.08.02 15:00:00	0:15:00		870.88	217.72	0.00	0.00	7,807.52
214	1991.08.02 15:15:00	0:15:00		1,003.04	250.76	0.00	0.00	7,675.36
214	1991.08.02 15:30:00	0:15:00		1,145.59	286.40	0.00	0.00	7,532.81
214	1991.08.02 15:45:00	0:15:00		1,303.48	325.87	0.00	0.00	7,374.92
214	1991.08.02 16:00:00	0:15:00		1,478.94	369.74	0.00	0.00	7,199.46
214	1991.08.02 16:15:00	0:15:00		1,678.41	419.60	0.00	0.00	6,999.99
214	1991.08.02 16:30:00	0:15:00		1,903.37	475.84	0.00	0.00	6,775.03
214	1991.08.02 16:45:00	0:15:00		2,159.76	539.94	0.00	0.00	6,518.64
214	1991.08.02 17:00:00	0:15:00		2,430.51	607.63	0.00	0.00	6,247.89
214	1991.08.02 17:15:00	0:15:00		2,699.02	674.76	0.00	0.00	5,979.38
214	1991.08.02 17:30:00	0:15:00		3,005.65	751.41	0.00	0.00	5,672.75
214	1991.08.02 17:45:00	0:15:00		3,422.16	855.54	0.00	0.00	5,256.24
214	1991.08.02 18:00:00	0:15:00		3,930.98	982.75	0.00	0.00	4,747.42
214	1991.08.02 18:15:00	0:15:00		4,562.80	1,140.70	0.00	0.00	4,115.60
214	1991.08.02 18:30:00	0:15:00		5,330.48	1,332.62	0.00	0.00	3,347.92
214	1991.08.02 18:45:00	0:15:00		6,284.27	1,571.07	0.00	0.00	2,394.13
214	1991.08.02 19:00:00	0:15:00		7,499.90	1,874.97	0.00	0.00	1,178.50
214	1991.08.02 19:15:00	0:09:00		7,686.00	1,152.90	0.00	0.00	992.40
214	1991.08.02 19:18:36	0:01:48		7,663.98	229.92	0.00	0.00	1,014.42
221	1991.08.09 07:19:12	0:05:24		7,323.44	659.11	0.00	0.00	1,354.96
221	1991.08.09 07:30:00	0:12:36		7,711.99	1,619.52	0.00	0.00	966.41
221	1991.08.09 07:45:00	0:15:00		6,806.46	1,701.61	0.00	0.00	1,871.94
221	1991.08.09 08:00:00	0:15:00		4,837.01	1,209.25	0.00	0.00	3,841.39
221	1991.08.09 08:15:00	0:15:00		3,103.65	775.91	0.00	0.00	5,574.75
221	1991.08.09 08:30:00	0:15:00		1,707.37	426.84	0.00	0.00	6,971.03
221	1991.08.09 08:45:00	0:15:00		542.97	135.74	0.00	0.00	8,135.43
221	1991.08.09 09:00:00	0:15:00		29.95	7.49	0.00	0.00	8,648.46
221	1991.08.09 09:15:00	0:15:00		73.50	18.38	0.00	0.00	8,604.90
221	1991.08.09 09:30:00	0:15:00		122.50	30.63	0.00	0.00	8,555.90
221	1991.08.09 09:45:00	0:15:00		167.54	41.89	0.00	0.00	8,510.86
221	1991.08.09 10:00:00	0:15:00		203.18	50.80	0.00	0.00	8,475.22
221	1991.08.09 10:15:00	0:15:00		238.32	59.58	0.00	0.00	8,440.08
221	1991.08.09 10:30:00	0:15:00		263.81	65.95	0.00	0.00	8,414.59
221	1991.08.09 10:45:00	0:15:00		294.25	73.56	0.00	0.00	8,384.15
221	1991.08.09 11:00:00	0:15:00		312.82	78.20	0.00	0.00	8,365.59
221	1991.08.09 11:15:00	0:15:00		336.57	84.14	0.00	0.00	8,341.83
221	1991.08.09 11:30:00	0:15:00		347.46	86.87	0.00	0.00	8,330.94
221	1991.08.09 11:45:00	0:15:00		363.30	90.83	0.00	0.00	8,315.10
221	1991.08.09 12:00:00	0:15:00		365.78	91.44	0.00	0.00	8,312.62
221	1991.08.09 12:15:00	0:15:00		380.38	95.09	0.00	0.00	8,298.02
221	1991.08.09 12:30:00	0:15:00		381.12	95.28	0.00	0.00	8,297.28
221	1991.08.09 12:45:00	0:15:00		396.96	99.24	0.00	0.00	8,281.44
221	1991.08.09 13:00:00	0:15:00		394.98	98.75	0.00	0.00	8,283.42
221	1991.08.09 13:15:00	0:15:00		407.60	101.90	0.00	0.00	8,270.80
221	1991.08.09 13:30:00	0:15:00		410.82	102.70	0.00	0.00	8,267.58
221	1991.08.09 13:45:00	0:15:00		436.56	109.14	0.00	0.00	8,241.85
221	1991.08.09 14:00:00	0:15:00		509.56	127.39	0.00	0.00	8,168.84
221	1991.08.09 14:15:00	0:15:00		596.18	149.05	0.00	0.00	8,082.22
221	1991.08.09 14:30:00	0:15:00		700.37	175.09	0.00	0.00	7,978.03
221	1991.08.09 14:45:00	0:15:00		832.53	208.13	0.00	0.00	7,845.88
221	1991.08.09 15:00:00	0:15:00		963.44	240.86	0.00	0.00	7,714.96

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
221	1991.08.09 15:15:00	0:15:00	1,102.28	275.57	0.00	0.00	7,576.12	1,894.03
221	1991.08.09 15:30:00	0:15:00	1,245.82	311.45	0.00	0.00	7,432.58	1,858.15
221	1991.08.09 15:45:00	0:15:00	1,410.89	352.72	0.00	0.00	7,267.51	1,816.88
221	1991.08.09 16:00:00	0:15:00	1,595.01	398.75	0.00	0.00	7,083.39	1,770.85
221	1991.08.09 16:15:00	0:15:00	1,806.61	451.65	0.00	0.00	6,871.79	1,717.95
221	1991.08.09 16:30:00	0:15:00	2,026.37	506.59	0.00	0.00	6,652.03	1,663.01
221	1991.08.09 16:45:00	0:15:00	2,288.45	572.11	0.00	0.00	6,389.95	1,597.49
221	1991.08.09 17:00:00	0:15:00	2,574.79	643.70	0.00	0.00	6,103.61	1,525.90
221	1991.08.09 17:15:00	0:15:00	2,864.34	716.09	0.00	0.00	5,814.06	1,453.52
221	1991.08.09 17:30:00	0:15:00	3,223.43	805.86	0.00	0.00	5,454.97	1,363.74
221	1991.08.09 17:45:00	0:15:00	3,625.84	906.46	0.00	0.00	5,052.56	1,263.14
221	1991.08.09 18:00:00	0:15:00	4,215.34	1,053.83	0.00	0.00	4,463.06	1,115.77
221	1991.08.09 18:15:00	0:15:00	4,929.32	1,232.33	0.00	0.00	3,749.08	937.27
221	1991.08.09 18:30:00	0:15:00	5,853.41	1,463.35	0.00	0.00	2,824.99	706.25
221	1991.08.09 18:45:00	0:20:24	7,017.56	2,385.97	0.00	0.00	1,660.84	564.69
221	1991.08.09 19:10:48	0:12:36	7,852.31	1,648.99	0.00	0.00	826.09	173.48
228	1991.08.16 07:25:12	0:02:24	7,976.30	319.05	0.00	0.00	702.10	28.08
228	1991.08.16 07:30:00	0:10:12	8,131.47	1,382.35	0.00	0.00	546.93	92.98
228	1991.08.16 07:45:00	0:15:00	8,184.18	2,046.05	0.00	0.00	494.22	123.56
228	1991.08.16 08:00:00	0:15:00	5,600.73	1,400.18	0.00	0.00	3,077.67	769.42
228	1991.08.16 08:15:00	0:15:00	3,708.00	927.00	0.00	0.00	4,970.40	1,242.60
228	1991.08.16 08:30:00	0:15:00	2,190.95	547.74	0.00	0.00	6,487.46	1,621.86
228	1991.08.16 08:45:00	0:15:00	976.56	244.14	0.00	0.00	7,701.84	1,925.46
228	1991.08.16 09:00:00	0:15:00	155.42	38.85	0.00	0.00	8,522.98	2,130.75
228	1991.08.16 09:15:00	0:15:00	163.83	40.96	0.00	0.00	8,514.57	2,128.64
228	1991.08.16 09:30:00	0:15:00	209.62	52.40	0.00	0.00	8,468.78	2,117.20
228	1991.08.16 09:45:00	0:15:00	252.68	63.17	0.00	0.00	8,425.72	2,106.43
228	1991.08.16 10:00:00	0:15:00	282.13	70.53	0.00	0.00	8,396.27	2,099.07
228	1991.08.16 10:15:00	0:15:00	312.57	78.14	0.00	0.00	8,365.83	2,091.46
228	1991.08.16 10:30:00	0:15:00	337.07	84.27	0.00	0.00	8,341.33	2,085.33
228	1991.08.16 10:45:00	0:15:00	367.26	91.82	0.00	0.00	8,311.14	2,077.79
228	1991.08.16 11:00:00	0:15:00	382.36	95.59	0.00	0.00	8,296.04	2,074.01
228	1991.08.16 11:15:00	0:15:00	404.88	101.22	0.00	0.00	8,273.52	2,068.38
228	1991.08.16 11:30:00	0:15:00	414.04	103.51	0.00	0.00	8,264.37	2,066.09
228	1991.08.16 11:45:00	0:15:00	428.39	107.10	0.00	0.00	8,250.01	2,062.50
228	1991.08.16 12:00:00	0:15:00	433.59	108.40	0.00	0.00	8,244.81	2,061.20
228	1991.08.16 12:15:00	0:15:00	445.47	111.37	0.00	0.00	8,232.94	2,058.23
228	1991.08.16 12:30:00	0:15:00	444.48	111.12	0.00	0.00	8,233.93	2,058.48
228	1991.08.16 12:45:00	0:15:00	459.32	114.83	0.00	0.00	8,219.08	2,054.77
228	1991.08.16 13:00:00	0:15:00	458.33	114.58	0.00	0.00	8,220.07	2,055.02
228	1991.08.16 13:15:00	0:15:00	470.46	117.62	0.00	0.00	8,207.94	2,051.99
228	1991.08.16 13:30:00	0:15:00	472.19	118.05	0.00	0.00	8,206.21	2,051.55
228	1991.08.16 13:45:00	0:15:00	508.57	127.14	0.00	0.00	8,169.83	2,042.46
228	1991.08.16 14:00:00	0:15:00	584.30	146.08	0.00	0.00	8,094.10	2,023.53
228	1991.08.16 14:15:00	0:15:00	673.40	168.35	0.00	0.00	8,005.01	2,001.25
228	1991.08.16 14:30:00	0:15:00	797.63	199.41	0.00	0.00	7,880.77	1,970.19
228	1991.08.16 14:45:00	0:15:00	928.55	232.14	0.00	0.00	7,749.85	1,937.46
228	1991.08.16 15:00:00	0:15:00	1,067.14	266.78	0.00	0.00	7,611.26	1,902.82
228	1991.08.16 15:15:00	0:15:00	1,210.43	302.61	0.00	0.00	7,467.97	1,866.99
228	1991.08.16 15:30:00	0:15:00	1,366.84	341.71	0.00	0.00	7,311.57	1,827.89
228	1991.08.16 15:45:00	0:15:00	1,545.76	386.44	0.00	0.00	7,132.64	1,783.16
228	1991.08.16 16:00:00	0:15:00	1,738.06	434.51	0.00	0.00	6,940.34	1,735.09
228	1991.08.16 16:15:00	0:15:00	1,962.52	490.63	0.00	0.00	6,715.88	1,678.97
228	1991.08.16 16:30:00	0:15:00	2,196.89	549.22	0.00	0.00	6,481.52	1,620.38
228	1991.08.16 16:45:00	0:15:00	2,463.67	615.92	0.00	0.00	6,214.73	1,553.68
228	1991.08.16 17:00:00	0:15:00	2,721.30	680.32	0.00	0.00	5,957.10	1,489.28
228	1991.08.16 17:15:00	0:15:00	3,046.49	761.62	0.00	0.00	5,631.92	1,407.98

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
228	1991.08.16 17:30:00	0:15:00	3,476.11	869.03	0.00	0.00	5,202.29	1,300.57
228	1991.08.16 17:45:00	0:15:00	3,954.24	988.56	0.00	0.00	4,724.16	1,181.04
228	1991.08.16 18:00:00	0:15:00	4,552.65	1,138.16	0.00	0.00	4,125.75	1,031.44
228	1991.08.16 18:15:00	0:15:00	5,418.83	1,354.71	0.00	0.00	3,259.57	814.89
228	1991.08.16 18:30:00	0:15:00	6,570.61	1,642.65	0.00	0.00	2,107.79	526.95
228	1991.08.16 18:45:00	0:16:12	8,063.91	2,177.26	0.00	0.00	614.49	165.91
228	1991.08.16 19:02:23	0:08:24	8,117.86	1,136.50	0.00	0.00	560.54	78.48
235	1991.08.23 07:31:48	0:06:36	8,627.67	949.04	0.00	0.00	50.73	5.58
235	1991.08.23 07:45:00	0:13:48	8,678.40	1,996.03	0.00	0.00	0.00	0.00
235	1991.08.23 08:00:00	0:15:00	6,559.97	1,639.99	0.00	0.00	2,118.43	529.61
235	1991.08.23 08:15:00	0:15:00	4,405.90	1,101.47	0.00	0.00	4,272.50	1,068.13
235	1991.08.23 08:30:00	0:15:00	2,809.89	702.47	0.00	0.00	5,868.51	1,467.13
235	1991.08.23 08:45:00	0:15:00	1,511.61	377.90	0.00	0.00	7,166.79	1,791.70
235	1991.08.23 09:00:00	0:15:00	455.61	113.90	0.00	0.00	8,222.79	2,055.70
235	1991.08.23 09:15:00	0:15:00	267.03	66.76	0.00	0.00	8,411.37	2,102.84
235	1991.08.23 09:30:00	0:15:00	302.67	75.67	0.00	0.00	8,375.73	2,093.93
235	1991.08.23 09:45:00	0:15:00	339.79	84.95	0.00	0.00	8,338.61	2,084.65
235	1991.08.23 10:00:00	0:15:00	365.78	91.44	0.00	0.00	8,312.62	2,078.16
235	1991.08.23 10:15:00	0:15:00	397.21	99.30	0.00	0.00	8,281.19	2,070.30
235	1991.08.23 10:30:00	0:15:00	418.49	104.62	0.00	0.00	8,259.91	2,064.98
235	1991.08.23 10:45:00	0:15:00	445.47	111.37	0.00	0.00	8,232.94	2,058.23
235	1991.08.23 11:00:00	0:15:00	460.31	115.08	0.00	0.00	8,218.09	2,054.52
235	1991.08.23 11:15:00	0:15:00	483.33	120.83	0.00	0.00	8,195.07	2,048.77
235	1991.08.23 11:30:00	0:15:00	491.25	122.81	0.00	0.00	8,187.15	2,046.79
235	1991.08.23 11:45:00	0:15:00	505.11	126.28	0.00	0.00	8,173.29	2,043.32
235	1991.08.23 12:00:00	0:15:00	506.84	126.71	0.00	0.00	8,171.56	2,042.89
235	1991.08.23 12:15:00	0:15:00	519.21	129.80	0.00	0.00	8,159.19	2,039.80
235	1991.08.23 12:30:00	0:15:00	516.99	129.25	0.00	0.00	8,161.41	2,040.35
235	1991.08.23 12:45:00	0:15:00	530.85	132.71	0.00	0.00	8,147.56	2,036.89
235	1991.08.23 13:00:00	0:15:00	528.37	132.09	0.00	0.00	8,150.03	2,037.51
235	1991.08.23 13:15:00	0:15:00	543.72	135.93	0.00	0.00	8,134.69	2,033.67
235	1991.08.23 13:30:00	0:15:00	546.93	136.73	0.00	0.00	8,131.47	2,032.87
235	1991.08.23 13:45:00	0:15:00	598.66	149.66	0.00	0.00	8,079.75	2,019.94
235	1991.08.23 14:00:00	0:15:00	675.62	168.91	0.00	0.00	8,002.78	2,000.70
235	1991.08.23 14:15:00	0:15:00	775.60	193.90	0.00	0.00	7,902.80	1,975.70
235	1991.08.23 14:30:00	0:15:00	905.53	226.38	0.00	0.00	7,772.87	1,943.22
235	1991.08.23 14:45:00	0:15:00	1,042.64	260.66	0.00	0.00	7,635.77	1,908.94
235	1991.08.23 15:00:00	0:15:00	1,184.44	296.11	0.00	0.00	7,493.96	1,873.49
235	1991.08.23 15:15:00	0:15:00	1,346.54	336.64	0.00	0.00	7,331.86	1,832.97
235	1991.08.23 15:30:00	0:15:00	1,504.68	376.17	0.00	0.00	7,173.72	1,793.43
235	1991.08.23 15:45:00	0:15:00	1,703.16	425.79	0.00	0.00	6,975.24	1,743.81
235	1991.08.23 16:00:00	0:15:00	1,913.03	478.26	0.00	0.00	6,765.38	1,691.34
235	1991.08.23 16:15:00	0:15:00	2,154.07	538.52	0.00	0.00	6,524.33	1,631.08
235	1991.08.23 16:30:00	0:15:00	2,400.81	600.20	0.00	0.00	6,277.59	1,569.40
235	1991.08.23 16:45:00	0:15:00	2,677.49	669.37	0.00	0.00	6,000.91	1,500.23
235	1991.08.23 17:00:00	0:15:00	2,962.84	740.71	0.00	0.00	5,715.56	1,428.89
235	1991.08.23 17:15:00	0:15:00	3,318.96	829.74	0.00	0.00	5,359.44	1,339.86
235	1991.08.23 17:30:00	0:15:00	3,831.25	957.81	0.00	0.00	4,847.15	1,211.79
235	1991.08.23 17:45:00	0:15:00	4,436.09	1,109.02	0.00	0.00	4,242.31	1,060.58
235	1991.08.23 18:00:00	0:15:00	5,077.06	1,269.27	0.00	0.00	3,601.34	900.33
235	1991.08.23 18:15:00	0:15:00	6,096.19	1,524.05	0.00	0.00	2,582.21	645.55
235	1991.08.23 18:30:00	0:15:00	7,567.46	1,891.87	0.00	0.00	1,110.94	277.74
235	1991.08.23 18:45:00	0:11:24	8,500.46	1,615.09	0.00	0.00	177.94	33.81
235	1991.08.23 18:52:48	0:03:36	8,386.62	503.20	0.00	0.00	291.78	17.51
242	1991.08.30 07:37:48	0:03:36	8,678.40	520.70	0.00	0.00	0.00	0.00
242	1991.08.30 07:45:00	0:11:24	8,678.40	1,648.90	0.00	0.00	0.00	0.00
242	1991.08.30 08:00:00	0:15:00	7,675.11	1,918.78	0.00	0.00	1,003.29	250.82

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
242	1991.08.30 08:15:00	0:15:00	5,302.27	1,325.57	0.00	0.00	3,376.13	844.03
242	1991.08.30 08:30:00	0:15:00	3,521.40	880.35	0.00	0.00	5,157.00	1,289.25
242	1991.08.30 08:45:00	0:15:00	2,097.89	524.47	0.00	0.00	6,580.51	1,645.13
242	1991.08.30 09:00:00	0:15:00	928.55	232.14	0.00	0.00	7,749.85	1,937.46
242	1991.08.30 09:15:00	0:15:00	400.67	100.17	0.00	0.00	8,277.73	2,069.43
242	1991.08.30 09:30:00	0:15:00	404.88	101.22	0.00	0.00	8,273.52	2,068.38
242	1991.08.30 09:45:00	0:15:00	436.80	109.20	0.00	0.00	8,241.60	2,060.40
242	1991.08.30 10:00:00	0:15:00	462.29	115.57	0.00	0.00	8,216.11	2,054.03
242	1991.08.30 10:15:00	0:15:00	491.50	122.87	0.00	0.00	8,186.90	2,046.73
242	1991.08.30 10:30:00	0:15:00	511.05	127.76	0.00	0.00	8,167.35	2,041.84
242	1991.08.30 10:45:00	0:15:00	536.04	134.01	0.00	0.00	8,142.36	2,035.59
242	1991.08.30 11:00:00	0:15:00	549.41	137.35	0.00	0.00	8,128.99	2,032.25
242	1991.08.30 11:15:00	0:15:00	569.70	142.43	0.00	0.00	8,108.70	2,027.18
242	1991.08.30 11:30:00	0:15:00	574.65	143.66	0.00	0.00	8,103.75	2,025.94
242	1991.08.30 11:45:00	0:15:00	590.24	147.56	0.00	0.00	8,088.16	2,022.04
242	1991.08.30 12:00:00	0:15:00	591.97	147.99	0.00	0.00	8,086.43	2,021.61
242	1991.08.30 12:15:00	0:15:00	601.63	150.41	0.00	0.00	8,076.78	2,019.19
242	1991.08.30 12:30:00	0:15:00	599.89	149.97	0.00	0.00	8,078.51	2,019.63
242	1991.08.30 12:45:00	0:15:00	612.02	153.01	0.00	0.00	8,066.38	2,016.60
242	1991.08.30 13:00:00	0:15:00	609.05	152.26	0.00	0.00	8,069.35	2,017.34
242	1991.08.30 13:15:00	0:15:00	625.63	156.41	0.00	0.00	8,052.77	2,013.19
242	1991.08.30 13:30:00	0:15:00	628.11	157.03	0.00	0.00	8,050.30	2,012.57
242	1991.08.30 13:45:00	0:15:00	689.73	172.43	0.00	0.00	7,988.67	1,997.17
242	1991.08.30 14:00:00	0:15:00	780.31	195.08	0.00	0.00	7,898.09	1,974.52
242	1991.08.30 14:15:00	0:15:00	895.39	223.85	0.00	0.00	7,783.02	1,945.75
242	1991.08.30 14:30:00	0:15:00	1,027.79	256.95	0.00	0.00	7,650.61	1,912.65
242	1991.08.30 14:45:00	0:15:00	1,168.85	292.21	0.00	0.00	7,509.55	1,877.39
242	1991.08.30 15:00:00	0:15:00	1,315.85	328.96	0.00	0.00	7,362.55	1,840.64
242	1991.08.30 15:15:00	0:15:00	1,480.68	370.17	0.00	0.00	7,197.72	1,799.43
242	1991.08.30 15:30:00	0:15:00	1,655.40	413.85	0.00	0.00	7,023.00	1,755.75
242	1991.08.30 15:45:00	0:15:00	1,883.82	470.96	0.00	0.00	6,794.58	1,698.65
242	1991.08.30 16:00:00	0:15:00	2,110.02	527.51	0.00	0.00	6,568.38	1,642.10
242	1991.08.30 16:15:00	0:15:00	2,369.38	592.35	0.00	0.00	6,309.02	1,577.26
242	1991.08.30 16:30:00	0:15:00	2,650.76	662.69	0.00	0.00	6,027.64	1,506.91
242	1991.08.30 16:45:00	0:15:00	2,963.33	740.83	0.00	0.00	5,715.07	1,428.77
242	1991.08.30 17:00:00	0:15:00	3,306.09	826.52	0.00	0.00	5,372.31	1,343.08
242	1991.08.30 17:15:00	0:15:00	3,773.58	943.40	0.00	0.00	4,904.82	1,226.20
242	1991.08.30 17:30:00	0:15:00	4,358.63	1,089.66	0.00	0.00	4,319.77	1,079.94
242	1991.08.30 17:45:00	0:15:00	5,105.03	1,276.26	0.00	0.00	3,573.37	893.34
242	1991.08.30 18:00:00	0:15:00	5,886.82	1,471.71	0.00	0.00	2,791.58	697.90
242	1991.08.30 18:15:00	0:15:00	7,018.55	1,754.64	0.00	0.00	1,659.85	414.96
242	1991.08.30 18:30:00	0:13:48	8,678.40	1,996.03	0.00	0.00	0.00	0.00
242	1991.08.30 18:42:36	0:06:36	8,631.38	949.45	0.00	0.00	47.02	5.17
249	1991.09.06 07:44:24	0:07:48	8,678.40	1,128.19	0.00	0.00	0.00	0.00
249	1991.09.06 08:00:00	0:15:00	8,640.78	2,160.20	0.00	0.00	37.62	9.40
249	1991.09.06 08:15:00	0:15:00	6,300.36	1,575.09	0.00	0.00	2,378.04	594.51
249	1991.09.06 08:30:00	0:15:00	4,282.90	1,070.73	0.00	0.00	4,395.50	1,098.88
249	1991.09.06 08:45:00	0:15:00	2,733.67	683.42	0.00	0.00	5,944.73	1,486.18
249	1991.09.06 09:00:00	0:15:00	1,475.23	368.81	0.00	0.00	7,203.17	1,800.79
249	1991.09.06 09:15:00	0:15:00	616.47	154.12	0.00	0.00	8,061.93	2,015.48
249	1991.09.06 09:30:00	0:15:00	519.96	129.99	0.00	0.00	8,158.44	2,039.61
249	1991.09.06 09:45:00	0:15:00	548.17	137.04	0.00	0.00	8,130.23	2,032.56
249	1991.09.06 10:00:00	0:15:00	570.69	142.67	0.00	0.00	8,107.71	2,026.93
249	1991.09.06 10:15:00	0:15:00	597.17	149.29	0.00	0.00	8,081.23	2,020.31
249	1991.09.06 10:30:00	0:15:00	613.01	153.25	0.00	0.00	8,065.39	2,016.35
249	1991.09.06 10:45:00	0:15:00	636.77	159.19	0.00	0.00	8,041.63	2,010.41
249	1991.09.06 11:00:00	0:15:00	647.66	161.91	0.00	0.00	8,030.74	2,007.69

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
249	1991.09.06 11:15:00	0:15:00	665.97	166.49	0.00	0.00	8,012.43	2,003.11
249	1991.09.06 11:30:00	0:15:00	671.17	167.79	0.00	0.00	8,007.23	2,001.81
249	1991.09.06 11:45:00	0:15:00	684.28	171.07	0.00	0.00	7,994.12	1,998.53
249	1991.09.06 12:00:00	0:15:00	682.06	170.51	0.00	0.00	7,996.34	1,999.09
249	1991.09.06 12:15:00	0:15:00	689.98	172.49	0.00	0.00	7,988.43	1,997.11
249	1991.09.06 12:30:00	0:15:00	688.74	172.19	0.00	0.00	7,989.66	1,997.42
249	1991.09.06 12:45:00	0:15:00	700.87	175.22	0.00	0.00	7,977.54	1,994.38
249	1991.09.06 13:00:00	0:15:00	697.15	174.29	0.00	0.00	7,981.25	1,995.31
249	1991.09.06 13:15:00	0:15:00	714.72	178.68	0.00	0.00	7,963.68	1,990.92
249	1991.09.06 13:30:00	0:15:00	718.44	179.61	0.00	0.00	7,959.96	1,989.99
249	1991.09.06 13:45:00	0:15:00	803.32	200.83	0.00	0.00	7,875.08	1,968.77
249	1991.09.06 14:00:00	0:15:00	892.66	223.17	0.00	0.00	7,785.74	1,946.43
249	1991.09.06 14:15:00	0:15:00	1,022.59	255.65	0.00	0.00	7,655.81	1,913.95
249	1991.09.06 14:30:00	0:15:00	1,160.68	290.17	0.00	0.00	7,517.72	1,879.43
249	1991.09.06 14:45:00	0:15:00	1,315.36	328.84	0.00	0.00	7,363.04	1,840.76
249	1991.09.06 15:00:00	0:15:00	1,469.54	367.39	0.00	0.00	7,208.86	1,802.22
249	1991.09.06 15:15:00	0:15:00	1,642.03	410.51	0.00	0.00	7,036.37	1,759.09
249	1991.09.06 15:30:00	0:15:00	1,840.76	460.19	0.00	0.00	6,837.64	1,709.41
249	1991.09.06 15:45:00	0:15:00	2,080.32	520.08	0.00	0.00	6,598.08	1,649.52
249	1991.09.06 16:00:00	0:15:00	2,341.66	585.42	0.00	0.00	6,336.74	1,584.19
249	1991.09.06 16:15:00	0:15:00	2,631.71	657.93	0.00	0.00	6,046.69	1,511.67
249	1991.09.06 16:30:00	0:15:00	2,954.18	738.54	0.00	0.00	5,724.23	1,431.06
249	1991.09.06 16:45:00	0:15:00	3,324.16	831.04	0.00	0.00	5,354.24	1,338.56
249	1991.09.06 17:00:00	0:15:00	3,757.99	939.50	0.00	0.00	4,920.41	1,230.10
249	1991.09.06 17:15:00	0:15:00	4,368.53	1,092.13	0.00	0.00	4,309.87	1,077.47
249	1991.09.06 17:30:00	0:15:00	5,107.50	1,276.88	0.00	0.00	3,570.90	892.72
249	1991.09.06 17:45:00	0:15:00	5,934.09	1,483.52	0.00	0.00	2,744.31	686.08
249	1991.09.06 18:00:00	0:15:00	6,851.25	1,712.81	0.00	0.00	1,827.15	456.79
249	1991.09.06 18:15:00	0:16:12	8,401.22	2,268.33	0.00	0.00	277.18	74.84
249	1991.09.06 18:31:48	0:08:24	8,678.40	1,214.98	0.00	0.00	0.00	0.00
256	1991.09.13 07:50:24	0:04:48	8,678.40	694.27	0.00	0.00	0.00	0.00
256	1991.09.13 08:00:00	0:12:36	8,678.40	1,822.46	0.00	0.00	0.00	0.00
256	1991.09.13 08:15:00	0:15:00	7,411.30	1,852.83	0.00	0.00	1,267.10	316.78
256	1991.09.13 08:30:00	0:15:00	5,148.34	1,287.08	0.00	0.00	3,530.06	882.52
256	1991.09.13 08:45:00	0:15:00	3,434.54	858.63	0.00	0.00	5,243.87	1,310.97
256	1991.09.13 09:00:00	0:15:00	2,059.29	514.82	0.00	0.00	6,619.12	1,654.78
256	1991.09.13 09:15:00	0:15:00	918.15	229.54	0.00	0.00	7,760.25	1,940.06
256	1991.09.13 09:30:00	0:15:00	647.66	161.91	0.00	0.00	8,030.74	2,007.69
256	1991.09.13 09:45:00	0:15:00	674.38	168.60	0.00	0.00	8,004.02	2,001.00
256	1991.09.13 10:00:00	0:15:00	691.46	172.87	0.00	0.00	7,986.94	1,996.74
256	1991.09.13 10:15:00	0:15:00	714.23	178.56	0.00	0.00	7,964.17	1,991.04
256	1991.09.13 10:30:00	0:15:00	726.60	181.65	0.00	0.00	7,951.80	1,987.95
256	1991.09.13 10:45:00	0:15:00	745.41	186.35	0.00	0.00	7,932.99	1,983.25
256	1991.09.13 11:00:00	0:15:00	755.81	188.95	0.00	0.00	7,922.60	1,980.65
256	1991.09.13 11:15:00	0:15:00	774.37	193.59	0.00	0.00	7,904.03	1,976.01
256	1991.09.13 11:30:00	0:15:00	778.57	194.64	0.00	0.00	7,899.83	1,974.96
256	1991.09.13 11:45:00	0:15:00	786.99	196.75	0.00	0.00	7,891.41	1,972.85
256	1991.09.13 12:00:00	0:15:00	782.04	195.51	0.00	0.00	7,896.36	1,974.09
256	1991.09.13 12:15:00	0:15:00	789.71	197.43	0.00	0.00	7,888.69	1,972.17
256	1991.09.13 12:30:00	0:15:00	788.23	197.06	0.00	0.00	7,890.18	1,972.54
256	1991.09.13 12:45:00	0:15:00	798.13	199.53	0.00	0.00	7,880.28	1,970.07
256	1991.09.13 13:00:00	0:15:00	795.16	198.79	0.00	0.00	7,883.25	1,970.81
256	1991.09.13 13:15:00	0:15:00	810.00	202.50	0.00	0.00	7,868.40	1,967.10
256	1991.09.13 13:30:00	0:15:00	825.84	206.46	0.00	0.00	7,852.56	1,963.14
256	1991.09.13 13:45:00	0:15:00	921.87	230.47	0.00	0.00	7,756.54	1,939.13
256	1991.09.13 14:00:00	0:15:00	1,021.85	255.46	0.00	0.00	7,656.55	1,914.14
256	1991.09.13 14:15:00	0:15:00	1,162.17	290.54	0.00	0.00	7,516.23	1,879.06

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
256	1991.09.13 14:30:00	0:15:00	1,303.73	325.93	0.00	0.00	7,374.67	1,843.67
256	1991.09.13 14:45:00	0:15:00	1,460.63	365.16	0.00	0.00	7,217.77	1,804.44
256	1991.09.13 15:00:00	0:15:00	1,632.88	408.22	0.00	0.00	7,045.52	1,761.38
256	1991.09.13 15:15:00	0:15:00	1,817.99	454.50	0.00	0.00	6,860.41	1,715.10
256	1991.09.13 15:30:00	0:15:00	2,050.87	512.72	0.00	0.00	6,627.53	1,656.88
256	1991.09.13 15:45:00	0:15:00	2,313.45	578.36	0.00	0.00	6,364.95	1,591.24
256	1991.09.13 16:00:00	0:15:00	2,604.24	651.06	0.00	0.00	6,074.16	1,518.54
256	1991.09.13 16:15:00	0:15:00	2,947.25	736.81	0.00	0.00	5,731.15	1,432.79
256	1991.09.13 16:30:00	0:15:00	3,323.66	830.92	0.00	0.00	5,354.74	1,338.68
256	1991.09.13 16:45:00	0:15:00	3,778.53	944.63	0.00	0.00	4,899.87	1,224.97
256	1991.09.13 17:00:00	0:15:00	4,383.87	1,095.97	0.00	0.00	4,294.53	1,073.63
256	1991.09.13 17:15:00	0:15:00	5,141.41	1,285.35	0.00	0.00	3,536.99	884.25
256	1991.09.13 17:30:00	0:15:00	6,054.86	1,513.72	0.00	0.00	2,623.54	655.89
256	1991.09.13 17:45:00	0:15:00	6,831.21	1,707.80	0.00	0.00	1,847.20	461.80
256	1991.09.13 18:00:00	0:15:00	7,987.44	1,996.86	0.00	0.00	690.97	172.74
256	1991.09.13 18:15:00	0:10:48	8,678.40	1,562.11	0.00	0.00	0.00	0.00
256	1991.09.13 18:21:00	0:03:00	8,678.40	433.92	0.00	0.00	0.00	0.00
263	1991.09.20 07:57:00	0:01:12	8,678.40	173.57	0.00	0.00	0.00	0.00
263	1991.09.20 08:00:00	0:09:00	8,678.40	1,301.76	0.00	0.00	0.00	0.00
263	1991.09.20 08:15:00	0:15:00	8,366.08	2,091.52	0.00	0.00	312.32	78.08
263	1991.09.20 08:30:00	0:15:00	6,094.95	1,523.74	0.00	0.00	2,583.45	645.86
263	1991.09.20 08:45:00	0:15:00	4,195.79	1,048.95	0.00	0.00	4,482.62	1,120.65
263	1991.09.20 09:00:00	0:15:00	2,669.33	667.33	0.00	0.00	6,009.08	1,502.27
263	1991.09.20 09:15:00	0:15:00	1,445.04	361.26	0.00	0.00	7,233.36	1,808.34
263	1991.09.20 09:30:00	0:15:00	786.00	196.50	0.00	0.00	7,892.40	1,973.10
263	1991.09.20 09:45:00	0:15:00	806.04	201.51	0.00	0.00	7,872.36	1,968.09
263	1991.09.20 10:00:00	0:15:00	817.68	204.42	0.00	0.00	7,860.73	1,965.18
263	1991.09.20 10:15:00	0:15:00	836.73	209.18	0.00	0.00	7,841.67	1,960.42
263	1991.09.20 10:30:00	0:15:00	844.90	211.23	0.00	0.00	7,833.50	1,958.38
263	1991.09.20 10:45:00	0:15:00	861.73	215.43	0.00	0.00	7,816.67	1,954.17
263	1991.09.20 11:00:00	0:15:00	869.15	217.29	0.00	0.00	7,809.25	1,952.31
263	1991.09.20 11:15:00	0:15:00	887.22	221.80	0.00	0.00	7,791.18	1,947.80
263	1991.09.20 11:30:00	0:15:00	891.43	222.86	0.00	0.00	7,786.98	1,946.74
263	1991.09.20 11:45:00	0:15:00	898.85	224.71	0.00	0.00	7,779.55	1,944.89
263	1991.09.20 12:00:00	0:15:00	888.46	222.11	0.00	0.00	7,789.95	1,947.49
263	1991.09.20 12:15:00	0:15:00	896.87	224.22	0.00	0.00	7,781.53	1,945.38
263	1991.09.20 12:30:00	0:15:00	892.66	223.17	0.00	0.00	7,785.74	1,946.43
263	1991.09.20 12:45:00	0:15:00	900.58	225.15	0.00	0.00	7,777.82	1,944.46
263	1991.09.20 13:00:00	0:15:00	900.09	225.02	0.00	0.00	7,778.31	1,944.58
263	1991.09.20 13:15:00	0:15:00	915.18	228.80	0.00	0.00	7,763.22	1,940.80
263	1991.09.20 13:30:00	0:15:00	949.83	237.46	0.00	0.00	7,728.57	1,932.14
263	1991.09.20 13:45:00	0:15:00	1,051.30	262.82	0.00	0.00	7,627.10	1,906.78
263	1991.09.20 14:00:00	0:15:00	1,168.36	292.09	0.00	0.00	7,510.05	1,877.51
263	1991.09.20 14:15:00	0:15:00	1,319.81	329.95	0.00	0.00	7,358.59	1,839.65
263	1991.09.20 14:30:00	0:15:00	1,465.58	366.40	0.00	0.00	7,212.82	1,803.21
263	1991.09.20 14:45:00	0:15:00	1,633.87	408.47	0.00	0.00	7,044.53	1,761.13
263	1991.09.20 15:00:00	0:15:00	1,809.33	452.33	0.00	0.00	6,869.07	1,717.27
263	1991.09.20 15:15:00	0:15:00	2,045.43	511.36	0.00	0.00	6,632.97	1,658.24
263	1991.09.20 15:30:00	0:15:00	2,300.58	575.15	0.00	0.00	6,377.82	1,594.46
263	1991.09.20 15:45:00	0:15:00	2,605.23	651.31	0.00	0.00	6,073.17	1,518.29
263	1991.09.20 16:00:00	0:15:00	2,929.68	732.42	0.00	0.00	5,748.73	1,437.18
263	1991.09.20 16:15:00	0:15:00	3,326.63	831.66	0.00	0.00	5,351.77	1,337.94
263	1991.09.20 16:30:00	0:15:00	3,782.99	945.75	0.00	0.00	4,895.41	1,223.85
263	1991.09.20 16:45:00	0:15:00	4,393.77	1,098.44	0.00	0.00	4,284.63	1,071.16
263	1991.09.20 17:00:00	0:15:00	5,162.94	1,290.74	0.00	0.00	3,515.46	878.87
263	1991.09.20 17:15:00	0:15:00	6,108.56	1,527.14	0.00	0.00	2,569.84	642.46
263	1991.09.20 17:30:00	0:15:00	6,875.75	1,718.94	0.00	0.00	1,802.65	450.66

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
263	1991.09.20 17:45:00	0:15:00	7,818.16	1,954.54	0.00	0.00	860.24	215.06
263	1991.09.20 18:00:00	0:12:36	8,678.40	1,822.46	0.00	0.00	0.00	0.00
263	1991.09.20 18:09:36	0:04:48	8,678.40	694.27	0.00	0.00	0.00	0.00
270	1991.09.27 08:03:00	0:06:00	8,678.40	867.84	0.00	0.00	0.00	0.00
270	1991.09.27 08:15:00	0:13:12	8,678.40	1,909.25	0.00	0.00	0.00	0.00
270	1991.09.27 08:30:00	0:15:00	7,199.21	1,799.80	0.00	0.00	1,479.19	369.80
270	1991.09.27 08:45:00	0:15:00	5,044.40	1,261.10	0.00	0.00	3,634.00	908.50
270	1991.09.27 09:00:00	0:15:00	3,407.31	851.83	0.00	0.00	5,271.09	1,317.77
270	1991.09.27 09:15:00	0:15:00	2,028.60	507.15	0.00	0.00	6,649.80	1,662.45
270	1991.09.27 09:30:00	0:15:00	1,063.18	265.79	0.00	0.00	7,615.22	1,903.81
270	1991.09.27 09:45:00	0:15:00	944.14	236.04	0.00	0.00	7,734.26	1,933.57
270	1991.09.27 10:00:00	0:15:00	949.34	237.33	0.00	0.00	7,729.07	1,932.27
270	1991.09.27 10:15:00	0:15:00	963.19	240.80	0.00	0.00	7,715.21	1,928.80
270	1991.09.27 10:30:00	0:15:00	966.91	241.73	0.00	0.00	7,711.49	1,927.87
270	1991.09.27 10:45:00	0:15:00	980.02	245.01	0.00	0.00	7,698.38	1,924.59
270	1991.09.27 11:00:00	0:15:00	989.92	247.48	0.00	0.00	7,688.48	1,922.12
270	1991.09.27 11:15:00	0:15:00	1,007.74	251.94	0.00	0.00	7,670.66	1,917.67
270	1991.09.27 11:30:00	0:15:00	1,007.49	251.87	0.00	0.00	7,670.91	1,917.73
270	1991.09.27 11:45:00	0:15:00	1,008.48	252.12	0.00	0.00	7,669.92	1,917.48
270	1991.09.27 12:00:00	0:15:00	1,001.31	250.33	0.00	0.00	7,677.09	1,919.27
270	1991.09.27 12:15:00	0:15:00	1,007.25	251.81	0.00	0.00	7,671.15	1,917.79
270	1991.09.27 12:30:00	0:15:00	1,001.55	250.39	0.00	0.00	7,676.85	1,919.21
270	1991.09.27 12:45:00	0:15:00	1,009.97	252.49	0.00	0.00	7,668.43	1,917.11
270	1991.09.27 13:00:00	0:15:00	1,008.24	252.06	0.00	0.00	7,670.17	1,917.54
270	1991.09.27 13:15:00	0:15:00	1,023.09	255.77	0.00	0.00	7,655.32	1,913.83
270	1991.09.27 13:30:00	0:15:00	1,080.75	270.19	0.00	0.00	7,597.65	1,899.41
270	1991.09.27 13:45:00	0:15:00	1,183.70	295.93	0.00	0.00	7,494.70	1,873.68
270	1991.09.27 14:00:00	0:15:00	1,316.60	329.15	0.00	0.00	7,361.80	1,840.45
270	1991.09.27 14:15:00	0:15:00	1,472.26	368.07	0.00	0.00	7,206.14	1,801.54
270	1991.09.27 14:30:00	0:15:00	1,627.68	406.92	0.00	0.00	7,050.72	1,762.68
270	1991.09.27 14:45:00	0:15:00	1,808.59	452.15	0.00	0.00	6,869.81	1,717.45
270	1991.09.27 15:00:00	0:15:00	2,018.95	504.74	0.00	0.00	6,659.45	1,664.86
270	1991.09.27 15:15:00	0:15:00	2,290.43	572.61	0.00	0.00	6,387.97	1,596.99
270	1991.09.27 15:30:00	0:15:00	2,590.38	647.60	0.00	0.00	6,088.02	1,522.01
270	1991.09.27 15:45:00	0:15:00	2,927.45	731.86	0.00	0.00	5,750.95	1,437.74
270	1991.09.27 16:00:00	0:15:00	3,311.79	827.95	0.00	0.00	5,366.62	1,341.65
270	1991.09.27 16:15:00	0:15:00	3,787.44	946.86	0.00	0.00	4,890.96	1,222.74
270	1991.09.27 16:30:00	0:15:00	4,374.47	1,093.62	0.00	0.00	4,303.93	1,075.98
270	1991.09.27 16:45:00	0:15:00	5,165.91	1,291.48	0.00	0.00	3,512.49	878.12
270	1991.09.27 17:00:00	0:15:00	6,108.81	1,527.20	0.00	0.00	2,569.59	642.40
270	1991.09.27 17:15:00	0:15:00	7,020.78	1,755.19	0.00	0.00	1,657.63	414.41
270	1991.09.27 17:30:00	0:15:00	7,756.78	1,939.20	0.00	0.00	921.62	230.40
270	1991.09.27 17:45:00	0:13:48	8,669.49	1,993.98	0.00	0.00	8.91	2.05
270	1991.09.27 17:58:11	0:06:36	8,678.40	954.62	0.00	0.00	0.00	0.00
277	1991.10.04 08:09:36	0:02:24	8,678.40	347.14	0.00	0.00	0.00	0.00
277	1991.10.04 08:15:00	0:10:12	8,678.40	1,475.33	0.00	0.00	0.00	0.00
277	1991.10.04 08:30:00	0:15:00	8,379.20	2,094.80	0.00	0.00	299.20	74.80
277	1991.10.04 08:45:00	0:15:00	6,058.32	1,514.58	0.00	0.00	2,620.08	655.02
277	1991.10.04 09:00:00	0:15:00	4,215.09	1,053.77	0.00	0.00	4,463.31	1,115.83
277	1991.10.04 09:15:00	0:15:00	2,755.45	688.86	0.00	0.00	5,922.95	1,480.74
277	1991.10.04 09:30:00	0:15:00	1,508.89	377.22	0.00	0.00	7,169.51	1,792.38
277	1991.10.04 09:45:00	0:15:00	1,128.51	282.13	0.00	0.00	7,549.89	1,887.47
277	1991.10.04 10:00:00	0:15:00	1,104.75	276.19	0.00	0.00	7,573.65	1,893.41
277	1991.10.04 10:15:00	0:15:00	1,104.75	276.19	0.00	0.00	7,573.65	1,893.41
277	1991.10.04 10:30:00	0:15:00	1,096.83	274.21	0.00	0.00	7,581.57	1,895.39
277	1991.10.04 10:45:00	0:15:00	1,109.46	277.36	0.00	0.00	7,568.95	1,892.24
277	1991.10.04 11:00:00	0:15:00	1,113.42	278.35	0.00	0.00	7,564.99	1,891.25

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
277	1991.10.04 11:15:00	0:15:00	1,128.51	282.13	0.00	0.00	7,549.89	1,887.47
277	1991.10.04 11:30:00	0:15:00	1,128.02	282.00	0.00	0.00	7,550.38	1,887.60
277	1991.10.04 11:45:00	0:15:00	1,128.51	282.13	0.00	0.00	7,549.89	1,887.47
277	1991.10.04 12:00:00	0:15:00	1,116.39	279.10	0.00	0.00	7,562.02	1,890.50
277	1991.10.04 12:15:00	0:15:00	1,119.60	279.90	0.00	0.00	7,558.80	1,889.70
277	1991.10.04 12:30:00	0:15:00	1,112.67	278.17	0.00	0.00	7,565.73	1,891.43
277	1991.10.04 12:45:00	0:15:00	1,118.61	279.65	0.00	0.00	7,559.79	1,889.95
277	1991.10.04 13:00:00	0:15:00	1,121.58	280.40	0.00	0.00	7,556.82	1,889.21
277	1991.10.04 13:15:00	0:15:00	1,134.45	283.61	0.00	0.00	7,543.95	1,885.99
277	1991.10.04 13:30:00	0:15:00	1,217.60	304.40	0.00	0.00	7,460.80	1,865.20
277	1991.10.04 13:45:00	0:15:00	1,332.68	333.17	0.00	0.00	7,345.72	1,836.43
277	1991.10.04 14:00:00	0:15:00	1,472.51	368.13	0.00	0.00	7,205.89	1,801.47
277	1991.10.04 14:15:00	0:15:00	1,637.33	409.33	0.00	0.00	7,041.07	1,760.27
277	1991.10.04 14:30:00	0:15:00	1,797.20	449.30	0.00	0.00	6,881.20	1,720.30
277	1991.10.04 14:45:00	0:15:00	1,991.97	497.99	0.00	0.00	6,686.43	1,671.61
277	1991.10.04 15:00:00	0:15:00	2,238.21	559.55	0.00	0.00	6,440.19	1,610.05
277	1991.10.04 15:15:00	0:15:00	2,543.11	635.78	0.00	0.00	6,135.29	1,533.82
277	1991.10.04 15:30:00	0:15:00	2,869.29	717.32	0.00	0.00	5,809.11	1,452.28
277	1991.10.04 15:45:00	0:15:00	3,244.97	811.24	0.00	0.00	5,433.44	1,358.36
277	1991.10.04 16:00:00	0:15:00	3,742.65	935.66	0.00	0.00	4,935.75	1,233.94
277	1991.10.04 16:15:00	0:15:00	4,351.70	1,087.92	0.00	0.00	4,326.70	1,081.68
277	1991.10.04 16:30:00	0:15:00	5,129.28	1,282.32	0.00	0.00	3,549.12	887.28
277	1991.10.04 16:45:00	0:15:00	6,114.50	1,528.63	0.00	0.00	2,563.90	640.98
277	1991.10.04 17:00:00	0:15:00	7,195.25	1,798.81	0.00	0.00	1,483.15	370.79
277	1991.10.04 17:15:00	0:15:00	7,786.98	1,946.74	0.00	0.00	891.43	222.86
277	1991.10.04 17:30:00	0:16:12	8,529.42	2,302.94	0.00	0.00	148.98	40.23
277	1991.10.04 17:47:23	0:08:24	8,678.40	1,214.98	0.00	0.00	0.00	0.00
284	1991.10.11 08:16:11	0:07:12	8,678.40	1,041.41	0.00	0.00	0.00	0.00
284	1991.10.11 08:30:00	0:14:24	8,678.40	2,082.82	0.00	0.00	0.00	0.00
284	1991.10.11 08:45:00	0:15:00	7,154.42	1,788.60	0.00	0.00	1,523.99	381.00
284	1991.10.11 09:00:00	0:15:00	5,121.12	1,280.28	0.00	0.00	3,557.29	889.32
284	1991.10.11 09:15:00	0:15:00	3,555.55	888.89	0.00	0.00	5,122.85	1,280.71
284	1991.10.11 09:30:00	0:15:00	2,197.88	549.47	0.00	0.00	6,480.53	1,620.13
284	1991.10.11 09:45:00	0:15:00	1,404.21	351.05	0.00	0.00	7,274.20	1,818.55
284	1991.10.11 10:00:00	0:15:00	1,355.45	338.86	0.00	0.00	7,322.95	1,830.74
284	1991.10.11 10:15:00	0:15:00	1,330.21	332.55	0.00	0.00	7,348.19	1,837.05
284	1991.10.11 10:30:00	0:15:00	1,292.59	323.15	0.00	0.00	7,385.81	1,846.45
284	1991.10.11 10:45:00	0:15:00	1,292.34	323.09	0.00	0.00	7,386.06	1,846.51
284	1991.10.11 11:00:00	0:15:00	1,280.46	320.12	0.00	0.00	7,397.94	1,849.48
284	1991.10.11 11:15:00	0:15:00	1,287.64	321.91	0.00	0.00	7,390.76	1,847.69
284	1991.10.11 11:30:00	0:15:00	1,272.55	318.14	0.00	0.00	7,405.86	1,851.46
284	1991.10.11 11:45:00	0:15:00	1,263.88	315.97	0.00	0.00	7,414.52	1,853.63
284	1991.10.11 12:00:00	0:15:00	1,242.85	310.71	0.00	0.00	7,435.55	1,858.89
284	1991.10.11 12:15:00	0:15:00	1,240.37	310.09	0.00	0.00	7,438.03	1,859.51
284	1991.10.11 12:30:00	0:15:00	1,228.25	307.06	0.00	0.00	7,450.15	1,862.54
284	1991.10.11 12:45:00	0:15:00	1,232.95	308.24	0.00	0.00	7,445.45	1,861.36
284	1991.10.11 13:00:00	0:15:00	1,236.91	309.23	0.00	0.00	7,441.49	1,860.37
284	1991.10.11 13:15:00	0:15:00	1,262.89	315.72	0.00	0.00	7,415.51	1,853.88
284	1991.10.11 13:30:00	0:15:00	1,351.99	338.00	0.00	0.00	7,326.41	1,831.60
284	1991.10.11 13:45:00	0:15:00	1,487.11	371.78	0.00	0.00	7,191.29	1,797.82
284	1991.10.11 14:00:00	0:15:00	1,642.78	410.69	0.00	0.00	7,035.62	1,758.91
284	1991.10.11 14:15:00	0:15:00	1,818.24	454.56	0.00	0.00	6,860.16	1,715.04
284	1991.10.11 14:30:00	0:15:00	2,001.13	500.28	0.00	0.00	6,677.27	1,669.32
284	1991.10.11 14:45:00	0:15:00	2,233.26	558.32	0.00	0.00	6,445.14	1,611.28
284	1991.10.11 15:00:00	0:15:00	2,520.84	630.21	0.00	0.00	6,157.56	1,539.39
284	1991.10.11 15:15:00	0:15:00	2,858.15	714.54	0.00	0.00	5,820.25	1,455.06
284	1991.10.11 15:30:00	0:15:00	3,201.90	800.48	0.00	0.00	5,476.50	1,369.12

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
284	1991.10.11 15:45:00	0:15:00	3,682.51	920.63	0.00	0.00	4,995.89	1,248.97
284	1991.10.11 16:00:00	0:15:00	4,282.65	1,070.66	0.00	0.00	4,395.75	1,098.94
284	1991.10.11 16:15:00	0:15:00	5,076.57	1,269.14	0.00	0.00	3,601.83	900.46
284	1991.10.11 16:30:00	0:15:00	6,009.82	1,502.45	0.00	0.00	2,668.58	667.15
284	1991.10.11 16:45:00	0:15:00	7,221.24	1,805.31	0.00	0.00	1,457.17	364.29
284	1991.10.11 17:00:00	0:15:00	7,855.28	1,963.82	0.00	0.00	823.12	205.78
284	1991.10.11 17:15:00	0:15:00	8,431.66	2,107.92	0.00	0.00	246.74	61.69
284	1991.10.11 17:30:00	0:11:24	8,678.40	1,648.90	0.00	0.00	0.00	0.00
284	1991.10.11 17:37:12	0:03:36	8,678.40	520.70	0.00	0.00	0.00	0.00
291	1991.10.18 08:22:48	0:03:36	8,678.40	520.70	0.00	0.00	0.00	0.00
291	1991.10.18 08:30:00	0:10:48	8,678.40	1,562.11	0.00	0.00	0.00	0.00
291	1991.10.18 08:45:00	0:15:00	8,212.39	2,053.10	0.00	0.00	466.01	116.50
291	1991.10.18 09:00:00	0:15:00	6,057.33	1,514.33	0.00	0.00	2,621.07	655.27
291	1991.10.18 09:15:00	0:15:00	4,373.97	1,093.49	0.00	0.00	4,304.43	1,076.11
291	1991.10.18 09:30:00	0:15:00	2,906.66	726.67	0.00	0.00	5,771.74	1,442.94
291	1991.10.18 09:45:00	0:15:00	1,742.02	435.50	0.00	0.00	6,936.39	1,734.10
291	1991.10.18 10:00:00	0:15:00	1,582.64	395.66	0.00	0.00	7,095.76	1,773.94
291	1991.10.18 10:15:00	0:15:00	1,575.96	393.99	0.00	0.00	7,102.44	1,775.61
291	1991.10.18 10:30:00	0:15:00	1,556.41	389.10	0.00	0.00	7,122.00	1,780.50
291	1991.10.18 10:45:00	0:15:00	1,538.09	384.52	0.00	0.00	7,140.31	1,785.08
291	1991.10.18 11:00:00	0:15:00	1,501.46	375.37	0.00	0.00	7,176.94	1,794.23
291	1991.10.18 11:15:00	0:15:00	1,491.57	372.89	0.00	0.00	7,186.84	1,796.71
291	1991.10.18 11:30:00	0:15:00	1,465.83	366.46	0.00	0.00	7,212.57	1,803.14
291	1991.10.18 11:45:00	0:15:00	1,452.46	363.12	0.00	0.00	7,225.94	1,806.48
291	1991.10.18 12:00:00	0:15:00	1,426.23	356.56	0.00	0.00	7,252.17	1,813.04
291	1991.10.18 12:15:00	0:15:00	1,423.76	355.94	0.00	0.00	7,254.65	1,813.66
291	1991.10.18 12:30:00	0:15:00	1,404.45	351.11	0.00	0.00	7,273.95	1,818.49
291	1991.10.18 12:45:00	0:15:00	1,407.42	351.86	0.00	0.00	7,270.98	1,817.75
291	1991.10.18 13:00:00	0:15:00	1,397.77	349.44	0.00	0.00	7,280.63	1,820.16
291	1991.10.18 13:15:00	0:15:00	1,436.63	359.16	0.00	0.00	7,241.78	1,810.44
291	1991.10.18 13:30:00	0:15:00	1,517.55	379.39	0.00	0.00	7,160.85	1,790.21
291	1991.10.18 13:45:00	0:15:00	1,681.14	420.28	0.00	0.00	6,997.27	1,749.32
291	1991.10.18 14:00:00	0:15:00	1,853.88	463.47	0.00	0.00	6,824.52	1,706.13
291	1991.10.18 14:15:00	0:15:00	2,059.78	514.95	0.00	0.00	6,618.62	1,654.66
291	1991.10.18 14:30:00	0:15:00	2,278.55	569.64	0.00	0.00	6,399.85	1,599.96
291	1991.10.18 14:45:00	0:15:00	2,550.04	637.51	0.00	0.00	6,128.36	1,532.09
291	1991.10.18 15:00:00	0:15:00	2,873.50	718.37	0.00	0.00	5,804.90	1,451.23
291	1991.10.18 15:15:00	0:15:00	3,189.03	797.26	0.00	0.00	5,489.37	1,372.34
291	1991.10.18 15:30:00	0:15:00	3,598.62	899.65	0.00	0.00	5,079.79	1,269.95
291	1991.10.18 15:45:00	0:15:00	4,201.73	1,050.43	0.00	0.00	4,476.68	1,119.17
291	1991.10.18 16:00:00	0:15:00	4,928.33	1,232.08	0.00	0.00	3,750.07	937.52
291	1991.10.18 16:15:00	0:15:00	5,859.10	1,464.78	0.00	0.00	2,819.30	704.83
291	1991.10.18 16:30:00	0:15:00	6,993.80	1,748.45	0.00	0.00	1,684.60	421.15
291	1991.10.18 16:45:00	0:15:00	8,005.01	2,001.25	0.00	0.00	673.40	168.35
291	1991.10.18 17:00:00	0:15:00	8,437.60	2,109.40	0.00	0.00	240.80	60.20
291	1991.10.18 17:15:00	0:13:12	8,678.40	1,909.25	0.00	0.00	0.00	0.00
291	1991.10.18 17:27:00	0:06:00	8,678.40	867.84	0.00	0.00	0.00	0.00
298	1991.10.25 07:30:00	0:07:48	8,678.40	1,128.19	0.00	0.00	0.00	0.00
298	1991.10.25 07:45:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
298	1991.10.25 08:00:00	0:15:00	6,991.82	1,747.96	0.00	0.00	1,686.58	421.65
298	1991.10.25 08:15:00	0:15:00	5,249.56	1,312.39	0.00	0.00	3,428.84	857.21
298	1991.10.25 08:30:00	0:15:00	3,720.62	930.16	0.00	0.00	4,957.78	1,239.44
298	1991.10.25 08:45:00	0:15:00	2,372.84	593.21	0.00	0.00	6,305.56	1,576.39
298	1991.10.25 09:00:00	0:15:00	1,783.35	445.84	0.00	0.00	6,895.06	1,723.76
298	1991.10.25 09:15:00	0:15:00	1,755.63	438.91	0.00	0.00	6,922.77	1,730.69
298	1991.10.25 09:30:00	0:15:00	1,733.85	433.46	0.00	0.00	6,944.55	1,736.14
298	1991.10.25 09:45:00	0:15:00	1,732.36	433.09	0.00	0.00	6,946.04	1,736.51

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
298	1991.10.25 10:00:00	0:15:00	1,717.76	429.44	0.00	0.00	6,960.64	1,740.16
298	1991.10.25 10:15:00	0:15:00	1,716.53	429.13	0.00	0.00	6,961.88	1,740.47
298	1991.10.25 10:30:00	0:15:00	1,703.41	425.85	0.00	0.00	6,974.99	1,743.75
298	1991.10.25 10:45:00	0:15:00	1,690.29	422.57	0.00	0.00	6,988.11	1,747.03
298	1991.10.25 11:00:00	0:15:00	1,656.88	414.22	0.00	0.00	7,021.52	1,755.38
298	1991.10.25 11:15:00	0:15:00	1,656.14	414.04	0.00	0.00	7,022.26	1,755.57
298	1991.10.25 11:30:00	0:15:00	1,634.61	408.65	0.00	0.00	7,043.79	1,760.95
298	1991.10.25 11:45:00	0:15:00	1,635.35	408.84	0.00	0.00	7,043.05	1,760.76
298	1991.10.25 12:00:00	0:15:00	1,604.42	401.10	0.00	0.00	7,073.98	1,768.50
298	1991.10.25 12:15:00	0:15:00	1,643.27	410.82	0.00	0.00	7,035.13	1,758.78
298	1991.10.25 12:30:00	0:15:00	1,715.29	428.82	0.00	0.00	6,963.11	1,740.78
298	1991.10.25 12:45:00	0:15:00	1,903.13	475.78	0.00	0.00	6,775.28	1,693.82
298	1991.10.25 13:00:00	0:15:00	2,094.18	523.55	0.00	0.00	6,584.22	1,646.06
298	1991.10.25 13:15:00	0:15:00	2,322.11	580.53	0.00	0.00	6,356.29	1,589.07
298	1991.10.25 13:30:00	0:15:00	2,557.46	639.37	0.00	0.00	6,120.94	1,530.23
298	1991.10.25 13:45:00	0:15:00	2,853.45	713.36	0.00	0.00	5,824.95	1,456.24
298	1991.10.25 14:00:00	0:15:00	3,156.61	789.15	0.00	0.00	5,521.79	1,380.45
298	1991.10.25 14:15:00	0:15:00	3,499.87	874.97	0.00	0.00	5,178.53	1,294.63
298	1991.10.25 14:30:00	0:15:00	4,041.61	1,010.40	0.00	0.00	4,636.80	1,159.20
298	1991.10.25 14:45:00	0:15:00	4,746.18	1,186.55	0.00	0.00	3,932.22	983.06
298	1991.10.25 15:00:00	0:15:00	5,635.87	1,408.97	0.00	0.00	3,042.53	760.63
298	1991.10.25 15:15:00	0:15:00	6,795.57	1,698.89	0.00	0.00	1,882.83	470.71
298	1991.10.25 15:30:00	0:15:00	8,091.87	2,022.97	0.00	0.00	586.53	146.63
298	1991.10.25 15:45:00	0:15:00	8,518.78	2,129.69	0.00	0.00	159.63	39.91
298	1991.10.25 16:00:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
298	1991.10.25 16:15:00	0:09:00	8,678.40	1,301.76	0.00	0.00	0.00	0.00
298	1991.10.25 16:18:00	0:01:48	8,678.40	260.35	0.00	0.00	0.00	0.00
305	1991.11.01 07:36:35	0:04:12	8,678.40	607.49	0.00	0.00	0.00	0.00
305	1991.11.01 07:45:00	0:11:24	8,678.40	1,648.90	0.00	0.00	0.00	0.00
305	1991.11.01 08:00:00	0:15:00	7,931.75	1,982.94	0.00	0.00	746.65	186.66
305	1991.11.01 08:15:00	0:15:00	6,070.95	1,517.74	0.00	0.00	2,607.46	651.86
305	1991.11.01 08:30:00	0:15:00	4,548.94	1,137.24	0.00	0.00	4,129.46	1,032.37
305	1991.11.01 08:45:00	0:15:00	3,222.20	805.55	0.00	0.00	5,456.20	1,364.05
305	1991.11.01 09:00:00	0:15:00	2,128.33	532.08	0.00	0.00	6,550.07	1,637.52
305	1991.11.01 09:15:00	0:15:00	2,057.80	514.45	0.00	0.00	6,620.60	1,655.15
305	1991.11.01 09:30:00	0:15:00	1,962.27	490.57	0.00	0.00	6,716.13	1,679.03
305	1991.11.01 09:45:00	0:15:00	1,906.84	476.71	0.00	0.00	6,771.56	1,692.89
305	1991.11.01 10:00:00	0:15:00	1,886.30	471.57	0.00	0.00	6,792.10	1,698.03
305	1991.11.01 10:15:00	0:15:00	1,884.32	471.08	0.00	0.00	6,794.08	1,698.52
305	1991.11.01 10:30:00	0:15:00	1,869.96	467.49	0.00	0.00	6,808.44	1,702.11
305	1991.11.01 10:45:00	0:15:00	1,869.22	467.31	0.00	0.00	6,809.18	1,702.30
305	1991.11.01 11:00:00	0:15:00	1,852.39	463.10	0.00	0.00	6,826.01	1,706.50
305	1991.11.01 11:15:00	0:15:00	1,856.85	464.21	0.00	0.00	6,821.55	1,705.39
305	1991.11.01 11:30:00	0:15:00	1,847.20	461.80	0.00	0.00	6,831.21	1,707.80
305	1991.11.01 11:45:00	0:15:00	1,840.02	460.00	0.00	0.00	6,838.38	1,709.60
305	1991.11.01 12:00:00	0:15:00	1,797.70	449.43	0.00	0.00	6,880.70	1,720.18
305	1991.11.01 12:15:00	0:15:00	1,830.86	457.72	0.00	0.00	6,847.54	1,711.89
305	1991.11.01 12:30:00	0:15:00	1,910.06	477.51	0.00	0.00	6,768.35	1,692.09
305	1991.11.01 12:45:00	0:15:00	2,121.16	530.29	0.00	0.00	6,557.25	1,639.31
305	1991.11.01 13:00:00	0:15:00	2,334.24	583.56	0.00	0.00	6,344.16	1,586.04
305	1991.11.01 13:15:00	0:15:00	2,596.07	649.02	0.00	0.00	6,082.33	1,520.58
305	1991.11.01 13:30:00	0:15:00	2,840.33	710.08	0.00	0.00	5,838.07	1,459.52
305	1991.11.01 13:45:00	0:15:00	3,124.44	781.11	0.00	0.00	5,553.96	1,388.49
305	1991.11.01 14:00:00	0:15:00	3,402.12	850.53	0.00	0.00	5,276.29	1,319.07
305	1991.11.01 14:15:00	0:15:00	3,859.21	964.80	0.00	0.00	4,819.19	1,204.80
305	1991.11.01 14:30:00	0:15:00	4,520.23	1,130.06	0.00	0.00	4,158.17	1,039.54
305	1991.11.01 14:45:00	0:15:00	5,421.56	1,355.39	0.00	0.00	3,256.84	814.21

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
305	1991.11.01 15:00:00	0:15:00	6,482.75	1,620.69	0.00	0.00	2,195.65	548.91
305	1991.11.01 15:15:00	0:15:00	7,826.08	1,956.52	0.00	0.00	852.32	213.08
305	1991.11.01 15:30:00	0:15:00	8,646.23	2,161.56	0.00	0.00	32.17	8.04
305	1991.11.01 15:45:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
305	1991.11.01 16:00:00	0:12:36	8,678.40	1,822.46	0.00	0.00	0.00	0.00
305	1991.11.01 16:10:12	0:05:24	8,678.40	781.06	0.00	0.00	0.00	0.00
312	1991.11.08 07:43:48	0:00:36	8,678.40	86.78	0.00	0.00	0.00	0.00
312	1991.11.08 07:45:00	0:07:48	8,678.40	1,128.19	0.00	0.00	0.00	0.00
312	1991.11.08 08:00:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
312	1991.11.08 08:15:00	0:15:00	6,955.44	1,738.86	0.00	0.00	1,722.96	430.74
312	1991.11.08 08:30:00	0:15:00	5,351.27	1,337.82	0.00	0.00	3,327.13	831.78
312	1991.11.08 08:45:00	0:15:00	4,035.17	1,008.79	0.00	0.00	4,643.23	1,160.81
312	1991.11.08 09:00:00	0:15:00	2,696.80	674.20	0.00	0.00	5,981.61	1,495.40
312	1991.11.08 09:15:00	0:15:00	2,450.55	612.64	0.00	0.00	6,227.85	1,556.96
312	1991.11.08 09:30:00	0:15:00	2,350.32	587.58	0.00	0.00	6,328.08	1,582.02
312	1991.11.08 09:45:00	0:15:00	2,264.94	566.24	0.00	0.00	6,413.46	1,603.37
312	1991.11.08 10:00:00	0:15:00	2,156.30	539.07	0.00	0.00	6,522.10	1,630.53
312	1991.11.08 10:15:00	0:15:00	2,105.56	526.39	0.00	0.00	6,572.84	1,643.21
312	1991.11.08 10:30:00	0:15:00	2,032.56	508.14	0.00	0.00	6,645.84	1,661.46
312	1991.11.08 10:45:00	0:15:00	2,033.05	508.26	0.00	0.00	6,645.35	1,661.34
312	1991.11.08 11:00:00	0:15:00	2,018.20	504.55	0.00	0.00	6,660.20	1,665.05
312	1991.11.08 11:15:00	0:15:00	2,029.34	507.34	0.00	0.00	6,649.06	1,662.27
312	1991.11.08 11:30:00	0:15:00	2,030.33	507.58	0.00	0.00	6,648.07	1,662.02
312	1991.11.08 11:45:00	0:15:00	2,014.00	503.50	0.00	0.00	6,664.40	1,666.10
312	1991.11.08 12:00:00	0:15:00	1,951.14	487.78	0.00	0.00	6,727.26	1,681.82
312	1991.11.08 12:15:00	0:15:00	1,975.39	493.85	0.00	0.00	6,703.01	1,675.75
312	1991.11.08 12:30:00	0:15:00	2,072.16	518.04	0.00	0.00	6,606.25	1,651.56
312	1991.11.08 12:45:00	0:15:00	2,319.14	579.79	0.00	0.00	6,359.26	1,589.82
312	1991.11.08 13:00:00	0:15:00	2,569.34	642.34	0.00	0.00	6,109.06	1,527.26
312	1991.11.08 13:15:00	0:15:00	2,823.51	705.88	0.00	0.00	5,854.90	1,463.72
312	1991.11.08 13:30:00	0:15:00	3,073.21	768.30	0.00	0.00	5,605.19	1,401.30
312	1991.11.08 13:45:00	0:15:00	3,354.85	838.71	0.00	0.00	5,323.55	1,330.89
312	1991.11.08 14:00:00	0:15:00	3,653.80	913.45	0.00	0.00	5,024.60	1,256.15
312	1991.11.08 14:15:00	0:15:00	4,318.04	1,079.51	0.00	0.00	4,360.36	1,090.09
312	1991.11.08 14:30:00	0:15:00	5,153.29	1,288.32	0.00	0.00	3,525.11	881.28
312	1991.11.08 14:45:00	0:15:00	6,184.29	1,546.07	0.00	0.00	2,494.11	623.53
312	1991.11.08 15:00:00	0:15:00	7,318.00	1,829.50	0.00	0.00	1,360.40	340.10
312	1991.11.08 15:15:00	0:15:00	8,538.82	2,134.71	0.00	0.00	139.58	34.90
312	1991.11.08 15:30:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
312	1991.11.08 15:45:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
312	1991.11.08 16:00:00	0:09:00	8,678.40	1,301.76	0.00	0.00	0.00	0.00
312	1991.11.08 16:03:00	0:01:48	8,678.40	260.35	0.00	0.00	0.00	0.00
319	1991.11.15 07:51:00	0:04:48	8,678.40	694.27	0.00	0.00	0.00	0.00
319	1991.11.15 08:00:00	0:12:00	8,678.40	1,735.68	0.00	0.00	0.00	0.00
319	1991.11.15 08:15:00	0:15:00	7,870.38	1,967.59	0.00	0.00	808.02	202.01
319	1991.11.15 08:30:00	0:15:00	6,179.84	1,544.96	0.00	0.00	2,498.56	624.64
319	1991.11.15 08:45:00	0:15:00	4,843.19	1,210.80	0.00	0.00	3,835.21	958.80
319	1991.11.15 09:00:00	0:15:00	3,518.93	879.73	0.00	0.00	5,159.47	1,289.87
319	1991.11.15 09:15:00	0:15:00	2,811.38	702.85	0.00	0.00	5,867.02	1,466.76
319	1991.11.15 09:30:00	0:15:00	2,734.66	683.67	0.00	0.00	5,943.74	1,485.94
319	1991.11.15 09:45:00	0:15:00	2,680.96	670.24	0.00	0.00	5,997.44	1,499.36
319	1991.11.15 10:00:00	0:15:00	2,569.84	642.46	0.00	0.00	6,108.56	1,527.14
319	1991.11.15 10:15:00	0:15:00	2,492.87	623.22	0.00	0.00	6,185.53	1,546.38
319	1991.11.15 10:30:00	0:15:00	2,384.97	596.24	0.00	0.00	6,293.43	1,573.36
319	1991.11.15 10:45:00	0:15:00	2,341.41	585.35	0.00	0.00	6,336.99	1,584.25
319	1991.11.15 11:00:00	0:15:00	2,276.82	569.21	0.00	0.00	6,401.58	1,600.40
319	1991.11.15 11:15:00	0:15:00	2,270.14	567.54	0.00	0.00	6,408.26	1,602.07

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
319	1991.11.15 11:30:00	0:15:00	2,234.50	558.63	0.00	0.00	6,443.90	1,610.98
319	1991.11.15 11:45:00	0:15:00	2,200.10	550.03	0.00	0.00	6,478.30	1,619.58
319	1991.11.15 12:00:00	0:15:00	2,097.15	524.29	0.00	0.00	6,581.25	1,645.31
319	1991.11.15 12:15:00	0:15:00	2,113.98	528.50	0.00	0.00	6,564.42	1,641.11
319	1991.11.15 12:30:00	0:15:00	2,217.67	554.42	0.00	0.00	6,460.73	1,615.18
319	1991.11.15 12:45:00	0:15:00	2,505.99	626.50	0.00	0.00	6,172.41	1,543.10
319	1991.11.15 13:00:00	0:15:00	2,778.46	694.62	0.00	0.00	5,899.94	1,474.98
319	1991.11.15 13:15:00	0:15:00	3,076.18	769.05	0.00	0.00	5,602.22	1,400.55
319	1991.11.15 13:30:00	0:15:00	3,362.27	840.57	0.00	0.00	5,316.13	1,329.03
319	1991.11.15 13:45:00	0:15:00	3,698.60	924.65	0.00	0.00	4,979.80	1,244.95
319	1991.11.15 14:00:00	0:15:00	4,115.35	1,028.84	0.00	0.00	4,563.05	1,140.76
319	1991.11.15 14:15:00	0:15:00	4,887.00	1,221.75	0.00	0.00	3,791.40	947.85
319	1991.11.15 14:30:00	0:15:00	5,771.00	1,442.75	0.00	0.00	2,907.40	726.85
319	1991.11.15 14:45:00	0:15:00	6,780.72	1,695.18	0.00	0.00	1,897.68	474.42
319	1991.11.15 15:00:00	0:15:00	7,883.25	1,970.81	0.00	0.00	795.16	198.79
319	1991.11.15 15:15:00	0:15:00	8,657.86	2,164.47	0.00	0.00	20.54	5.14
319	1991.11.15 15:30:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
319	1991.11.15 15:45:00	0:13:48	8,678.40	1,996.03	0.00	0.00	0.00	0.00
319	1991.11.15 15:57:36	0:06:36	8,678.40	954.62	0.00	0.00	0.00	0.00
326	1991.11.22 07:57:36	0:01:12	8,678.40	173.57	0.00	0.00	0.00	0.00
326	1991.11.22 08:00:00	0:09:00	8,678.40	1,301.76	0.00	0.00	0.00	0.00
326	1991.11.22 08:15:00	0:15:00	8,642.27	2,160.57	0.00	0.00	36.13	9.03
326	1991.11.22 08:30:00	0:15:00	6,974.99	1,743.75	0.00	0.00	1,703.41	425.85
326	1991.11.22 08:45:00	0:15:00	5,656.42	1,414.10	0.00	0.00	3,021.99	755.50
326	1991.11.22 09:00:00	0:15:00	4,307.40	1,076.85	0.00	0.00	4,371.00	1,092.75
326	1991.11.22 09:15:00	0:15:00	3,138.05	784.51	0.00	0.00	5,540.35	1,385.09
326	1991.11.22 09:30:00	0:15:00	3,085.34	771.34	0.00	0.00	5,593.06	1,398.27
326	1991.11.22 09:45:00	0:15:00	3,047.23	761.81	0.00	0.00	5,631.17	1,407.79
326	1991.11.22 10:00:00	0:15:00	2,947.25	736.81	0.00	0.00	5,731.15	1,432.79
326	1991.11.22 10:15:00	0:15:00	2,882.41	720.60	0.00	0.00	5,795.99	1,449.00
326	1991.11.22 10:30:00	0:15:00	2,772.28	693.07	0.00	0.00	5,906.12	1,476.53
326	1991.11.22 10:45:00	0:15:00	2,711.89	677.97	0.00	0.00	5,966.51	1,491.63
326	1991.11.22 11:00:00	0:15:00	2,625.03	656.26	0.00	0.00	6,053.37	1,513.34
326	1991.11.22 11:15:00	0:15:00	2,628.00	657.00	0.00	0.00	6,050.40	1,512.60
326	1991.11.22 11:30:00	0:15:00	2,582.95	645.74	0.00	0.00	6,095.45	1,523.86
326	1991.11.22 11:45:00	0:15:00	2,535.69	633.92	0.00	0.00	6,142.72	1,535.68
326	1991.11.22 12:00:00	0:15:00	2,395.36	598.84	0.00	0.00	6,283.04	1,570.76
326	1991.11.22 12:15:00	0:15:00	2,384.48	596.12	0.00	0.00	6,293.93	1,573.48
326	1991.11.22 12:30:00	0:15:00	2,482.48	620.62	0.00	0.00	6,195.92	1,548.98
326	1991.11.22 12:45:00	0:15:00	2,806.68	701.67	0.00	0.00	5,871.72	1,467.93
326	1991.11.22 13:00:00	0:15:00	3,091.77	772.94	0.00	0.00	5,586.63	1,396.66
326	1991.11.22 13:15:00	0:15:00	3,403.35	850.84	0.00	0.00	5,275.05	1,318.76
326	1991.11.22 13:30:00	0:15:00	3,698.10	924.53	0.00	0.00	4,980.30	1,245.08
326	1991.11.22 13:45:00	0:15:00	4,066.85	1,016.71	0.00	0.00	4,611.55	1,152.89
326	1991.11.22 14:00:00	0:15:00	4,545.48	1,136.37	0.00	0.00	4,132.93	1,033.23
326	1991.11.22 14:15:00	0:15:00	5,376.02	1,344.01	0.00	0.00	3,302.38	825.60
326	1991.11.22 14:30:00	0:15:00	6,214.73	1,553.68	0.00	0.00	2,463.67	615.92
326	1991.11.22 14:45:00	0:15:00	7,149.96	1,787.49	0.00	0.00	1,528.44	382.11
326	1991.11.22 15:00:00	0:15:00	8,206.46	2,051.61	0.00	0.00	471.95	117.99
326	1991.11.22 15:15:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
326	1991.11.22 15:30:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
326	1991.11.22 15:45:00	0:12:00	8,678.40	1,735.68	0.00	0.00	0.00	0.00
326	1991.11.22 15:54:00	0:04:48	8,678.40	694.27	0.00	0.00	0.00	0.00
333	1991.11.29 08:04:12	0:05:24	8,678.40	781.06	0.00	0.00	0.00	0.00
333	1991.11.29 08:15:00	0:12:36	8,678.40	1,822.46	0.00	0.00	0.00	0.00
333	1991.11.29 08:30:00	0:15:00	7,749.11	1,937.28	0.00	0.00	929.29	232.32
333	1991.11.29 08:45:00	0:15:00	6,353.57	1,588.39	0.00	0.00	2,324.83	581.21

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
333	1991.11.29 09:00:00	0:15:00	5,110.97	1,277.74	0.00	0.00	3,567.43	891.86
333	1991.11.29 09:15:00	0:15:00	3,821.10	955.28	0.00	0.00	4,857.30	1,214.33
333	1991.11.29 09:30:00	0:15:00	3,371.68	842.92	0.00	0.00	5,306.73	1,326.68
333	1991.11.29 09:45:00	0:15:00	3,342.23	835.56	0.00	0.00	5,336.18	1,334.04
333	1991.11.29 10:00:00	0:15:00	3,260.06	815.02	0.00	0.00	5,418.34	1,354.59
333	1991.11.29 10:15:00	0:15:00	3,211.31	802.83	0.00	0.00	5,467.09	1,366.77
333	1991.11.29 10:30:00	0:15:00	3,111.33	777.83	0.00	0.00	5,567.08	1,391.77
333	1991.11.29 10:45:00	0:15:00	3,056.63	764.16	0.00	0.00	5,621.77	1,405.44
333	1991.11.29 11:00:00	0:15:00	2,965.81	741.45	0.00	0.00	5,712.59	1,428.15
333	1991.11.29 11:15:00	0:15:00	2,973.23	743.31	0.00	0.00	5,705.17	1,426.29
333	1991.11.29 11:30:00	0:15:00	2,918.29	729.57	0.00	0.00	5,760.11	1,440.03
333	1991.11.29 11:45:00	0:15:00	2,877.46	719.36	0.00	0.00	5,800.94	1,450.24
333	1991.11.29 12:00:00	0:15:00	2,719.81	679.95	0.00	0.00	5,958.59	1,489.65
333	1991.11.29 12:15:00	0:15:00	2,667.59	666.90	0.00	0.00	6,010.81	1,502.70
333	1991.11.29 12:30:00	0:15:00	2,750.00	687.50	0.00	0.00	5,928.40	1,482.10
333	1991.11.29 12:45:00	0:15:00	3,066.28	766.57	0.00	0.00	5,612.12	1,403.03
333	1991.11.29 13:00:00	0:15:00	3,357.07	839.27	0.00	0.00	5,321.33	1,330.33
333	1991.11.29 13:15:00	0:15:00	3,673.85	918.46	0.00	0.00	5,004.55	1,251.14
333	1991.11.29 13:30:00	0:15:00	3,978.00	994.50	0.00	0.00	4,700.40	1,175.10
333	1991.11.29 13:45:00	0:15:00	4,361.35	1,090.34	0.00	0.00	4,317.05	1,079.26
333	1991.11.29 14:00:00	0:15:00	4,879.57	1,219.89	0.00	0.00	3,798.83	949.71
333	1991.11.29 14:15:00	0:15:00	5,680.67	1,420.17	0.00	0.00	2,997.73	749.43
333	1991.11.29 14:30:00	0:15:00	6,489.93	1,622.48	0.00	0.00	2,188.47	547.12
333	1991.11.29 14:45:00	0:15:00	7,406.10	1,851.53	0.00	0.00	1,272.30	318.07
333	1991.11.29 15:00:00	0:15:00	8,376.23	2,094.06	0.00	0.00	302.17	75.54
333	1991.11.29 15:15:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
333	1991.11.29 15:30:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
333	1991.11.29 15:45:00	0:10:48	8,678.40	1,562.11	0.00	0.00	0.00	0.00
333	1991.11.29 15:51:36	0:03:00	8,678.40	433.92	0.00	0.00	0.00	0.00
340	1991.12.06 08:10:12	0:02:24	8,678.40	347.14	0.00	0.00	0.00	0.00
340	1991.12.06 08:15:00	0:10:12	8,678.40	1,475.33	0.00	0.00	0.00	0.00
340	1991.12.06 08:30:00	0:15:00	8,393.55	2,098.39	0.00	0.00	284.85	71.21
340	1991.12.06 08:45:00	0:15:00	6,983.41	1,745.85	0.00	0.00	1,694.99	423.75
340	1991.12.06 09:00:00	0:15:00	5,751.70	1,437.92	0.00	0.00	2,926.71	731.68
340	1991.12.06 09:15:00	0:15:00	4,534.34	1,133.59	0.00	0.00	4,144.06	1,036.02
340	1991.12.06 09:30:00	0:15:00	3,633.01	908.25	0.00	0.00	5,045.39	1,261.35
340	1991.12.06 09:45:00	0:15:00	3,588.22	897.06	0.00	0.00	5,090.18	1,272.55
340	1991.12.06 10:00:00	0:15:00	3,496.90	874.23	0.00	0.00	5,181.50	1,295.38
340	1991.12.06 10:15:00	0:15:00	3,460.27	865.07	0.00	0.00	5,218.13	1,304.53
340	1991.12.06 10:30:00	0:15:00	3,364.99	841.25	0.00	0.00	5,313.41	1,328.35
340	1991.12.06 10:45:00	0:15:00	3,330.84	832.71	0.00	0.00	5,347.56	1,336.89
340	1991.12.06 11:00:00	0:15:00	3,236.80	809.20	0.00	0.00	5,441.60	1,360.40
340	1991.12.06 11:15:00	0:15:00	3,236.55	809.14	0.00	0.00	5,441.85	1,360.46
340	1991.12.06 11:30:00	0:15:00	3,179.63	794.91	0.00	0.00	5,498.77	1,374.69
340	1991.12.06 11:45:00	0:15:00	3,143.50	785.87	0.00	0.00	5,534.90	1,383.73
340	1991.12.06 12:00:00	0:15:00	2,954.67	738.67	0.00	0.00	5,723.73	1,430.93
340	1991.12.06 12:15:00	0:15:00	2,896.27	724.07	0.00	0.00	5,782.14	1,445.53
340	1991.12.06 12:30:00	0:15:00	2,951.21	737.80	0.00	0.00	5,727.20	1,431.80
340	1991.12.06 12:45:00	0:15:00	3,255.36	813.84	0.00	0.00	5,423.04	1,355.76
340	1991.12.06 13:00:00	0:15:00	3,552.09	888.02	0.00	0.00	5,126.31	1,281.58
340	1991.12.06 13:15:00	0:15:00	3,864.90	966.23	0.00	0.00	4,813.50	1,203.37
340	1991.12.06 13:30:00	0:15:00	4,165.10	1,041.27	0.00	0.00	4,513.30	1,128.33
340	1991.12.06 13:45:00	0:15:00	4,563.79	1,140.95	0.00	0.00	4,114.61	1,028.65
340	1991.12.06 14:00:00	0:15:00	5,078.05	1,269.51	0.00	0.00	3,600.35	900.09
340	1991.12.06 14:15:00	0:15:00	5,854.40	1,463.60	0.00	0.00	2,824.00	706.00
340	1991.12.06 14:30:00	0:15:00	6,636.44	1,659.11	0.00	0.00	2,041.96	510.49
340	1991.12.06 14:45:00	0:15:00	7,534.79	1,883.70	0.00	0.00	1,143.61	285.90

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
340	1991.12.06 15:00:00	0:15:00	8,439.58	2,109.90	0.00	0.00	238.82	59.71
340	1991.12.06 15:15:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
340	1991.12.06 15:30:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
340	1991.12.06 15:45:00	0:10:12	8,678.40	1,475.33	0.00	0.00	0.00	0.00
340	1991.12.06 15:51:00	0:03:00	8,678.40	433.92	0.00	0.00	0.00	0.00
347	1991.12.13 08:15:36	0:07:12	8,678.40	1,041.41	0.00	0.00	0.00	0.00
347	1991.12.13 08:30:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
347	1991.12.13 08:45:00	0:15:00	7,526.13	1,881.53	0.00	0.00	1,152.27	288.07
347	1991.12.13 09:00:00	0:15:00	6,225.37	1,556.34	0.00	0.00	2,453.03	613.26
347	1991.12.13 09:15:00	0:15:00	5,093.65	1,273.41	0.00	0.00	3,584.76	896.19
347	1991.12.13 09:30:00	0:15:00	3,809.72	952.43	0.00	0.00	4,868.69	1,217.17
347	1991.12.13 09:45:00	0:15:00	3,764.18	941.05	0.00	0.00	4,914.22	1,228.56
347	1991.12.13 10:00:00	0:15:00	3,669.39	917.35	0.00	0.00	5,009.01	1,252.25
347	1991.12.13 10:15:00	0:15:00	3,628.07	907.02	0.00	0.00	5,050.34	1,262.58
347	1991.12.13 10:30:00	0:15:00	3,530.31	882.58	0.00	0.00	5,148.09	1,287.02
347	1991.12.13 10:45:00	0:15:00	3,505.56	876.39	0.00	0.00	5,172.84	1,293.21
347	1991.12.13 11:00:00	0:15:00	3,424.64	856.16	0.00	0.00	5,253.77	1,313.44
347	1991.12.13 11:15:00	0:15:00	3,415.97	853.99	0.00	0.00	5,262.43	1,315.61
347	1991.12.13 11:30:00	0:15:00	3,349.40	837.35	0.00	0.00	5,329.00	1,332.25
347	1991.12.13 11:45:00	0:15:00	3,323.17	830.79	0.00	0.00	5,355.23	1,338.81
347	1991.12.13 12:00:00	0:15:00	3,136.32	784.08	0.00	0.00	5,542.08	1,385.52
347	1991.12.13 12:15:00	0:15:00	3,063.31	765.83	0.00	0.00	5,615.09	1,403.77
347	1991.12.13 12:30:00	0:15:00	3,070.74	767.69	0.00	0.00	5,607.66	1,401.92
347	1991.12.13 12:45:00	0:15:00	3,353.11	838.28	0.00	0.00	5,325.29	1,331.32
347	1991.12.13 13:00:00	0:15:00	3,648.11	912.03	0.00	0.00	5,030.29	1,257.57
347	1991.12.13 13:15:00	0:15:00	3,964.39	991.10	0.00	0.00	4,714.01	1,178.50
347	1991.12.13 13:30:00	0:15:00	4,258.89	1,064.72	0.00	0.00	4,419.51	1,104.88
347	1991.12.13 13:45:00	0:15:00	4,649.91	1,162.48	0.00	0.00	4,028.49	1,007.12
347	1991.12.13 14:00:00	0:15:00	5,120.62	1,280.16	0.00	0.00	3,557.78	889.45
347	1991.12.13 14:15:00	0:15:00	5,893.01	1,473.25	0.00	0.00	2,785.39	696.35
347	1991.12.13 14:30:00	0:15:00	6,660.94	1,665.24	0.00	0.00	2,017.46	504.37
347	1991.12.13 14:45:00	0:15:00	7,529.60	1,882.40	0.00	0.00	1,148.81	287.20
347	1991.12.13 15:00:00	0:15:00	8,409.39	2,102.35	0.00	0.00	269.01	67.25
347	1991.12.13 15:15:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
347	1991.12.13 15:30:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
347	1991.12.13 15:45:00	0:10:48	8,678.40	1,562.11	0.00	0.00	0.00	0.00
347	1991.12.13 15:52:11	0:03:36	8,678.40	520.70	0.00	0.00	0.00	0.00
354	1991.12.20 08:19:48	0:04:48	8,678.40	694.27	0.00	0.00	0.00	0.00
354	1991.12.20 08:30:00	0:12:36	8,678.40	1,822.46	0.00	0.00	0.00	0.00
354	1991.12.20 08:45:00	0:15:00	7,898.34	1,974.59	0.00	0.00	780.06	195.02
354	1991.12.20 09:00:00	0:15:00	6,585.95	1,646.49	0.00	0.00	2,092.45	523.11
354	1991.12.20 09:15:00	0:15:00	5,474.27	1,368.57	0.00	0.00	3,204.13	801.03
354	1991.12.20 09:30:00	0:15:00	4,115.35	1,028.84	0.00	0.00	4,563.05	1,140.76
354	1991.12.20 09:45:00	0:15:00	3,844.86	961.21	0.00	0.00	4,833.54	1,208.39
354	1991.12.20 10:00:00	0:15:00	3,752.80	938.20	0.00	0.00	4,925.61	1,231.40
354	1991.12.20 10:15:00	0:15:00	3,704.29	926.07	0.00	0.00	4,974.11	1,243.53
354	1991.12.20 10:30:00	0:15:00	3,606.78	901.70	0.00	0.00	5,071.62	1,267.91
354	1991.12.20 10:45:00	0:15:00	3,580.80	895.20	0.00	0.00	5,097.60	1,274.40
354	1991.12.20 11:00:00	0:15:00	3,506.80	876.70	0.00	0.00	5,171.60	1,292.90
354	1991.12.20 11:15:00	0:15:00	3,490.96	872.74	0.00	0.00	5,187.44	1,296.86
354	1991.12.20 11:30:00	0:15:00	3,425.13	856.28	0.00	0.00	5,253.27	1,313.32
354	1991.12.20 11:45:00	0:15:00	3,397.66	849.42	0.00	0.00	5,280.74	1,320.19
354	1991.12.20 12:00:00	0:15:00	3,227.39	806.85	0.00	0.00	5,451.01	1,362.75
354	1991.12.20 12:15:00	0:15:00	3,139.54	784.89	0.00	0.00	5,538.86	1,384.72
354	1991.12.20 12:30:00	0:15:00	3,111.33	777.83	0.00	0.00	5,567.08	1,391.77
354	1991.12.20 12:45:00	0:15:00	3,349.65	837.41	0.00	0.00	5,328.75	1,332.19
354	1991.12.20 13:00:00	0:15:00	3,643.16	910.79	0.00	0.00	5,035.24	1,258.81

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
354	1991.12.20 13:15:00	0:15:00	3,963.65	990.91	0.00	0.00	4,714.75	1,178.69
354	1991.12.20 13:30:00	0:15:00	4,253.20	1,063.30	0.00	0.00	4,425.20	1,106.30
354	1991.12.20 13:45:00	0:15:00	4,626.40	1,156.60	0.00	0.00	4,052.00	1,013.00
354	1991.12.20 14:00:00	0:15:00	5,077.31	1,269.33	0.00	0.00	3,601.09	900.27
354	1991.12.20 14:15:00	0:15:00	5,798.72	1,449.68	0.00	0.00	2,879.68	719.92
354	1991.12.20 14:30:00	0:15:00	6,555.76	1,638.94	0.00	0.00	2,122.64	530.66
354	1991.12.20 14:45:00	0:15:00	7,410.06	1,852.52	0.00	0.00	1,268.34	317.08
354	1991.12.20 15:00:00	0:15:00	8,309.65	2,077.41	0.00	0.00	368.75	92.19
354	1991.12.20 15:15:00	0:15:00	8,677.16	2,169.29	0.00	0.00	1.24	0.31
354	1991.12.20 15:30:00	0:15:00	8,678.40	2,169.60	0.00	0.00	0.00	0.00
354	1991.12.20 15:45:00	0:12:36	8,678.40	1,822.46	0.00	0.00	0.00	0.00
354	1991.12.20 15:54:36	0:04:48	8,678.40	694.27	0.00	0.00	0.00	0.00
			3,415,413.17	765,109.96	31,293.42	4,616.52	6,498,740.15	1,622,301.00

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Appendix E
Shadow Evaluation of Alternatives
for the 1979 Mission Street Project

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34 Corte Madera Ave
Mill Valley CA 94941

SHADOW EVALUATION OF ALTERNATIVES FOR THE 1979 MISSION STREET PROJECT

Final (April 27, 2016)

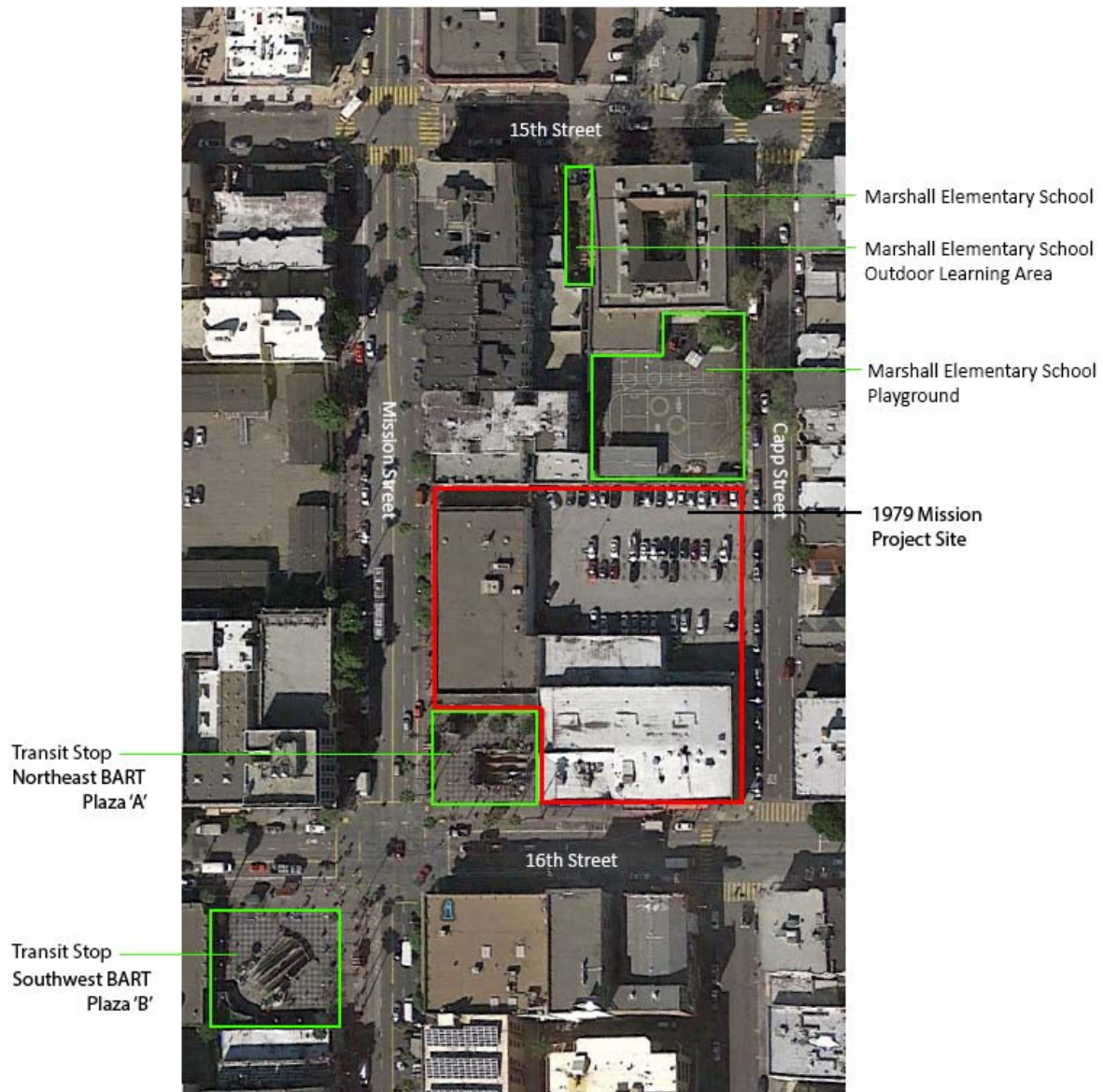
Introduction and Report Organization

Existing shadows and shadows from the Proposed Project on the Playground are evaluated and found to be significant in the final 1979 Mission Street Shadow Analysis (November 23, 2015). A series of building massing concepts were developed by the project sponsor to evaluate the potential to reduce the shadow impacts associated with the proposed 1979 Mission Street project (Proposed Project) on the Marshall Elementary School Playground (Playground) (see Figure 1).

A number of alternatives were developed and five alternatives were identified for further study and consideration:

- **Alternative A:** No Project Alternative is not addressed in this report, because existing conditions are analyzed in the shadow memo prepared for the Proposed Project.¹
- **Alternative B:** Bulk Code Compliant Alternative: This Alternative is discussed in less detail because it would not substantially reduce the new shadow cast by the Proposed Project. Alternative B would comply with the Planning Code regulations for bulk and height.
- **Alternative C:** The Raised Playground Alternative
- **Alternative D:** The Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)
- **Alternative E:** The Reduced Shadow Alternative 2 – Reduced Capp Component (35-foot Setback of the Capp Street residential component)
- **Alternative F:** The Reduced Shadow Alternative 3 – Reduced Mission and Capp Components (70-foot Setback for Capp residential component and 40-foot height reduction for Mission residential component)

¹ CADP, 2015. 1979 Mission Street Shadow Analysis. Prepared for Maximus Real Estate Partners. November. A copy of this document is available for review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2013.1543E.



Source: Skidmore Owings & Merrill

Figure 1. Aerial view of site.

This report contains the following sections:

1. Summary of Findings
2. Overview of Proposed Project's Impacts
3. Methodology
4. Description of Alternatives
5. Shadow Effects of the Alternatives
 - a. Overview
 - b. Alternative B
 - c. Alternative C
 - d. Alternative D
 - e. Alternative E
 - f. Alternative F
6. Exhibits –graphics showing shadow from one hour after sunrise to one hour before sunset, and quantified shadow impact results are provided for each alternative:
 - a. Exhibit H.1 and H.2, Alternative C
 - b. Exhibit I.1 and I.2, Alternative D
 - c. Exhibit J.1 and J.2, Alternative E
 - d. Exhibit K.1 and K.2, Alternative F

1 Summary of Findings

As shown in Table 1, the four shadow alternatives (Alternatives C, D, E, and F) evaluated in this report would result in reduced shadow on the Playground compared to shadow that would result from the Proposed Project. Alternative B, Bulk Code Compliant Alternative, is discussed in less detail in this memo because it would not substantially reduce the new shadow cast by the Proposed Project. Shadow load on an annual basis for Alternative B is shown in Table 1. Table 2 presents the shadow load that would result under each alternative between 10:00 a.m. and 1:00 p.m., the time period during which lunch and recess periods occur and the Playground experiences more intensive use than the rest of the day. The findings of this study are summarized below for each alternative:

Table 1
Summary of Alternatives and Proposed Project's Shadow Impact
Shadow Load on Marshall Elementary School Playground

Scenario	Existing Shadow Load (sfh)	Existing Shadow Load (Percentage of TAAS)	New Shadow Load (sfh)	New Shadow Load (Percentage of TAAS)	Total Shadow Load Existing + New Shadow (Percentage of TAAS)
Existing	12,061,131	22.08	N/A	N/A	22.08
Proposed Project	12,061,131 ¹	22.08 ¹	11,785,129 ²	21.57	43.65
Alternative B	12,061,131 ¹	22.08 ¹	11,051,242 ²	20.24	42.32
Alternative C	N/A	N/A	11,203,056 ³	20.95	28.70
Alternative D	12,061,131 ¹	22.08 ¹	9,276,878 ²	16.99	39.07
Alternative E	12,061,131 ¹	22.08 ¹	6,257,142 ²	11.46	33.54
Alternative F	12,061,131 ¹	22.08 ¹	4,814,315 ²	8.82	30.90

Notes:

N/A = Not applicable

sfh = square foot hours

TAAS = Theoretical Available Annual Sunlight

¹ Shadow load from existing buildings would remain unchanged under the Proposed Project, Alternative D, Alternative E, and Alternative F and is encompassed within Existing Conditions.

² The Playground surface area would remain 14,665 square feet, as under existing conditions. Therefore, the TAAS for the Playground would be 54,615,706 sfh of available sunlight, similar to the TAAS under existing conditions.

³ The Raised Playground surface area would be 14,365 square feet (300 square feet smaller than the existing Playground). Therefore, the TAAS for the Raised Playground would have 53,471,430.85 sfh of available sunlight.

Table 2
Summary of Alternatives and Proposed Project's Shadow Impact
Shadow Load on Marshall Elementary School Playground Between 10:00 a.m. and 1:00 p.m.

Scenario	Existing Shadow Load 10 a.m. to 1 p.m. (sfh)	Existing Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS)	New Shadow Load 10 a.m. to 1 p.m. (sfh)	New Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS)	Total Shadow Load 10 a.m. to 1 p.m. Existing + New (Percentage of TAAS)
Proposed Project	61,836 ¹	0.39	435,156	2.71	3.1
Alternative C ²	N/A	N/A	275,237 ³	1.75	2.14
Alternative D	61,836 ¹	0.39	327,258	2.04	2.43
Alternative E	61,836 ¹	0.39	139,150	0.87	1.26
Alternative F	61,836 ¹	0.39	120,307	0.75	1.14
<p>Notes:</p> <p>N/A = Not applicable</p> <p>sfh = square foot hours</p> <p>TAAS = Theoretical Available Annual Sunlight</p> <p>¹ Shadow load from existing buildings would remain unchanged under the Proposed Project, Alternative D, Alternative E, and Alternative F and is encompassed within Existing Conditions.</p> <p>² The Raised Playground surface area would be 14,365 square feet (300 square feet smaller than the existing Playground). Shadow load on the Raised Playground from existing buildings would be reduced by 59,603 sfh due to the surface of the Playground being elevated by 15 feet.</p> <p>³ Shadow load on the Raised Playground from existing buildings would be reduced by 59,603 sfh due to the surface of the Playground being elevated by 15 feet.</p>					

- **Alternative C, the Raised Playground Alternative**, would entail development at the project site that would be the same as that under the Proposed Project. However, the existing Playground and the one story, multi-use room would be demolished, the temporary modular building housing the library would be removed, and a new, 15-foot-high, one-story structure would be built in its place with a new playground (herein Raised Playground) on the roof.

Alternative C would result in a 14.95 percent reduction in the percentage of Theoretical Available Annual Sunlight (TAAS) on the Raised Playground compared to the total shadow load on the existing Playground under the Proposed Project. This is because although shadow from the proposed building under Alternative C would result in shadow similar to the Proposed Project, the shadow on the Raised Playground from the existing buildings would be substantially reduced.

Between 10:00 a.m. and 1:00 p.m., the new shadow load in square foot hours (sfh) on the Raised Playground under Alternative C would be 36.7 percent less than the new shadow load in sfh on the existing Playground under the Proposed Project (herein Playground). In the winter between 10:00 a.m. and 1:00 p.m., approximately the southern half of the Raised Playground would be shaded under Alternative C. Under the Proposed Project, most of the existing Playground would be shaded during this time period. During the autumn/spring, the south portion of the Raised Playground would be shaded under Alternative C, with a maximum area of 2,404 square feet shaded at 1:00 p.m. Under the Proposed Project, a larger area of the south portion of the existing Playground would be shaded in the autumn/spring, with a maximum area of 3,584 square feet shaded at 1:00 p.m. The edge of the southern boundary of the

Playground would be shaded during the summer under Alternative C or the Proposed Project.

- **Alternative D, the Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)**, would be similar to the Proposed Project except that the northeastern corner of the Capp Street residential component would be reduced from five stories to three and four stories. The height reduction of the Capp Street residential component would be accomplished by a series of setbacks that would remove a total of four dwelling units from the fourth and fifth floors when compared to the Proposed Project.

Under Alternative D, there would be a 4.58 percent reduction in the shadow load as a percentage of TAAS compared to the total shadow load on the Playground under the Proposed Project. Alternative D would result in a new shadow load of 16.99 percent of TAAS and a total shadow load of 39 percent of TAAS on the Playground. Alternative D would result in 21.3 percent less shadow expressed in square foot hours when compared to the Proposed Project. In addition, the new shadow in sfh on the Playground under Alternative D between 10:00 a.m. and 1:00 p.m. would be approximately 24.8 percent less than that on the Playground under the Proposed Project.

Similar to the Proposed Project, between 10:00 a.m. and 1:00 p.m., the majority of the Playground would be shaded under Alternative D during winter. During autumn/spring, a portion of the Playground along the southern boundary would be shaded under both Alternative D and the Proposed Project. However, because of the setbacks of the Capp Street residential component under Alternative D, new shadow during this time period throughout the seasons would be smaller in area and duration than those cast by the Proposed Project.

- **Alternative E, the Reduced Shadow Alternative 2 – Reduced Capp Component (35 foot Setback)**. The northern end of the Capp Street residential component at the second and third floors would be set back 35 feet, the fourth floor setback would be 45 feet, and the fifth floor setback would be 55 feet from the north property line.

Under Alternative E, there would be an 11.46 percent reduction in the total shadow load as a percentage of TAAS on the Playground compared with the total shadow load on the Playground under the Proposed Project. The proposed residential components under Alternative E would result in a new shadow load of 11.46 percent of TAAS. Therefore, the total shadow load on the Playground under Alternative E would be 33.54 percent of TAAS. Alternative E would result in 10.11 percent less shadow in square foot hours when compared to the Proposed Project. In addition, the new shadow in sfh on the Playground under Alternative E between 10:00 a.m. and 1:00 p.m. would be approximately 68 percent less than that on the Playground under the Proposed Project. The shadow reduction under Alternative E would result from the setbacks from the north property line above the ground floor of the Capp Street residential component adjacent to the Playground.

Between 10:00 a.m. and 1:00 p.m. during winter, under Alternative E, the middle portion of the Playground, including the basketball hoop, kickball diamond, and northern half of

the turf field, would remain sunny from 9:00 a.m. until 2:00 p.m. During that same period of the day, the Playground would be mostly shaded under the Proposed Project, except for a small section at the northeastern corner. During autumn/spring under Alternative E, the southern end of the Playground would be shaded starting at 9:00 a.m., and shaded area would gradually increase for the rest of the day, with a maximum area of 1,246 square feet shaded at 1:00 p.m. Under the Proposed Project a larger section of the south boundary would be shaded during this timeframe, with a maximum area of 3,584 square feet shaded at 1:00 p.m. Because of the setbacks of the Capp Street component under Alternative E, shadow that would be cast during this time period throughout the seasons would be smaller than those cast by the Proposed Project.

- **Alternative F, the Reduced Shadow Alternative 3 – Reduced Mission and Capp Components (70 foot Setback for the Capp Street Component and 40 foot reduction in the Mission Street Component height)**, would set back the Capp Street Component 70 feet from the north property line above the ground floor and would reduce the height of the Mission Street residential component by 40 feet from 105 feet to 65 feet (five residential floors).

Alternative F would result in a 12.75 percent reduction in new shadow as a percentage of TAAS when compared to the Proposed Project. The proposed residential components under Alternative F would result in a new shadow load of 8.82 percent of TAAS. The total shadow load on the Playground under Alternative F would be 30.90 percent of TAAS. New shadow load in sfh on the Playground under Alternative F between 10:00 a.m. and 1:00 p.m. would be approximately 72.35 percent less than that on the Playground under the Proposed Project. The shadow reduction under Alternative F would result from the 70-foot setback from the north property line above the ground floor at the northeastern corner of the Capp Street residential component adjacent to the Playground, as well as the reduction in height of the Mission Street residential component from 105 feet to 65 feet.

Between 10:00 a.m. and 1:00 p.m. during winter, the Playground would be mostly sunny under Alternative F, compared to being mostly shaded under the Proposed Project. During autumn/spring under Alternative F, the Playground would be shaded along its southern boundary, with a maximum area of 1,246 square feet shaded at 1:00 p.m. Under the Proposed Project, a larger section of the Playground along its south boundary would be shaded during this timeframe, with a maximum area of 3,584 square feet shaded at 1:00 p.m. Because of the 70-foot setback from the north property line of the Capp Street component under Alternative F, shadow loads during this time period throughout the seasons would be smaller than those cast by the Proposed Project.

2 Overview of Proposed Project's Impacts

The Playground is bordered by Capp Street to the east, the project site to the south, existing buildings along Mission Street to the west, and the school building to the north. The shadow analysis prepared for the Proposed Project², identified significant and unavoidable shadow impacts on the Playground. Analysis of the shadow impacts of the Proposed Project on the 16th

² CADP, 2015. 1979 Mission Street Shadow Analysis. Prepared for Maximus Real Estate Partners. November.

Street Mission BART Plazas, located on the northeast and southwest corners of the intersection of 16th and Mission Streets (Northeast and Southwest BART Plazas) (See Figure 1), concluded that the Proposed Project would not create new shadow that would adversely affect the use of the BART Plazas. Shadow cast by the Proposed Project would primarily impact the Northeast BART Plaza in the mornings from late spring until early autumn. During weekdays, the Northeast BART Plaza experiences peak use from about 11:00 a.m. to 1:00 p.m., and portions of the plaza, including some of the seating areas, would be shaded by the Proposed Project during this time. However, users congregate in the BART Plaza to access the BART trains through the BART escalators and elevator, and wait for the transit buses and shuttle services that pass nearby. Additional shadow resulting from the Proposed Project would not substantially impact the uses of the Northeast BART Plaza. Similarly, impacts from the Proposed Project's new shadow on the Southwest Plaza would be minor. Although portions of the Plaza, including some of the seating areas, could be shadowed by the Proposed Project in the early morning, the BART Plaza is mostly used to access the BART station escalators and the public restroom, and to wait for the transit buses and shuttle services that pass nearby. The peak use of the plaza does not occur during the early morning hours. Therefore, the small amount of additional shadow that would result from the Proposed Project would not substantially affect this usage.

The Proposed Project would result in minimal shadow impacts (0.16 percent reduction of the Theoretical Available Annual Sunlight [TAAS]³ at the Marshall Elementary School outdoor learning area, which is further north of the project site on 15th Street). The Marshall Elementary School Playground (the Playground), bordered by Capp Street to the east, the Proposed Project to the south, and the school building to the north, would experience a 22 percent reduction of TAAS. As described in shadow analysis prepared for the Proposed Project, shadow would substantially affect the Playground as a result of the Proposed Project. Therefore, alternatives that would reduce the shadow impact on the Playground were developed and analyzed in this technical memorandum.

3 Methodology

Characterization of the Shadow at the Playground

The Marshall Elementary School Playground is located directly north of the project site. It includes a paved play area, with drawn kickball diamond and foursquare game area, a basketball hoop, a jungle gym, and a turf field (See Figure 2).

The three residential components of the Proposed Project would create varying degrees of new shadow on the Playground. The Capp Street residential component, up to 55 feet tall, would be located adjacent to the southern boundary of the Playground and would replace an existing surface parking lot that currently casts no shadow on the Playground. As shown in Exhibit C of the shadow study prepared for the Project,⁴ the Capp Street residential component would account for the majority of the new shadow impact on the Playground in the morning and early part of the afternoon. Therefore, alternatives that would reduce the height of the Capp Street

³ The TAAS is the amount of sunlight that would be available in a park or open space in the course of a year if there were no shadows from structures, trees, or other facilities.

⁴ CADP, 2015. 1979 Mission Street Shadow Analysis. Prepared for Maximus Real Estate Partners. November.

residential component of the Proposed Project would achieve the most substantial reduction in the total new shadow load on the Playground.



Source: Skidmore Owings & Merrill

Figure 2. Detail of Marshall Elementary School Playground layout

The 105 foot tall 16th Street residential component would be south of and adjacent to the Capp Street residential component. The 16th Street residential component would add minimal shadow on the Playground and would minimally overlap the shadow on those parts of the Playground already shaded by the Capp Street residential component. Reducing the height of

the 16th Street component would not substantially reduce the new shadow at the Playground as a result of the Proposed Project.

The 105 foot tall Mission Street residential component would be located southwest of the Playground and west of the Capp Street residential component. Due to its location, it would not shade the Playground until the late afternoon when project shadows would occur to the northeast. In addition, some of the shadow impacts that would result from the Mission Street residential component would overlap with shadows from the Capp Street residential component. Therefore, reducing the height of the Mission Street residential component without also reducing the height of the Capp Street residential component would achieve minor reductions in shadow impacts on the Playground. These reductions would occur in the afternoon beginning after 2:00 p.m. in the autumn and after 1:00 p.m. in the winter.

During the winter in the early morning (at about 8:20 a.m.), the Playground is fully shaded by existing buildings to the east and by the Proposed Project to the west and south. Shadows from existing buildings move off the Playground to the northeast. By 10:00 a.m., the Playground would be shaded by the Proposed Project, only covering the turf field, the foursquare game area, and the kickball diamond (see Figure 2). The Playground would continue to be shaded by the Proposed Project until 2:00 p.m. During this period, shadow on the Playground would move from southwest to northeast. The largest shadow cast by the Proposed Project on the Playground in the winter would occur at 2:15 p.m., covering approximately 10,826 square feet. By 1:00 p.m., shadow from existing structures starts shading the Playground from the west and moves to the east. By 3:55 p.m., shadow on the Playground is mostly due to existing buildings. Sunset occurs at about 4:55 p.m. on this day.

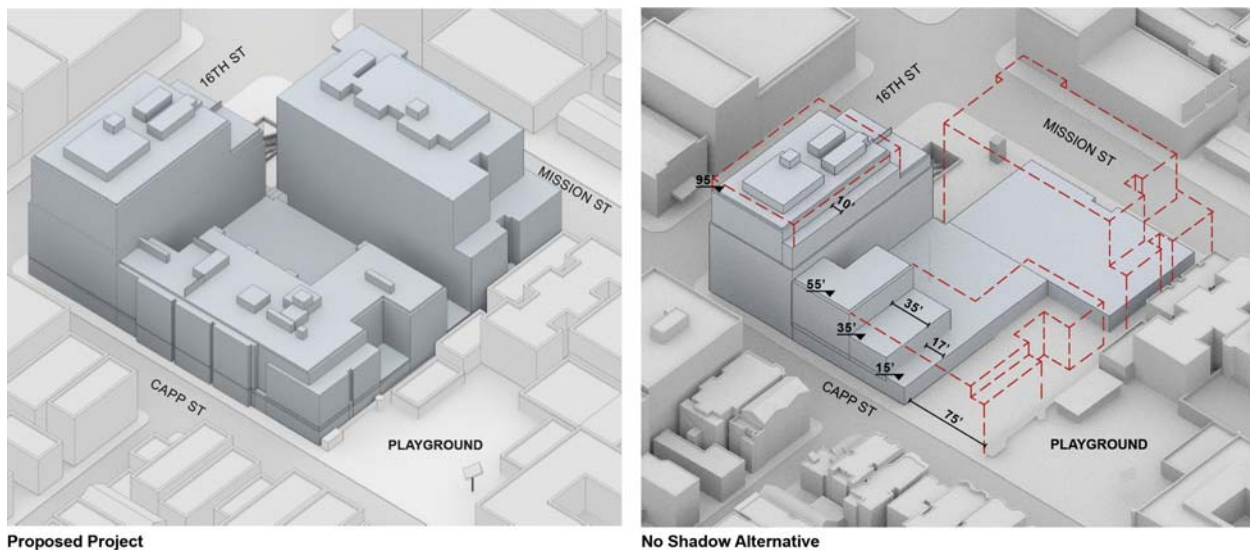
In the spring and autumn, the Playground is completely shaded by existing buildings at 7:57 a.m. By 9:00 a.m., shadow from existing buildings starts to move off the Playground to the northeast. During that time, a small area in the southern part of the Playground would start to be shaded by the Proposed Project. This shadow would increase throughout the day, reaching its greatest extent at 4:15 p.m., with a shaded area of 4,524 square feet. By late afternoon, at 6:00 p.m., a small portion of the Playground along the southern boundary would be shadowed by new shadow from the Proposed Project. The rest of the Playground would be shadowed due to existing buildings to the west.

In summer, the Proposed Project would not cast any shadow on the Playground from sunrise until approximately 10:00 a.m. Starting at 10:00 a.m., the Proposed Project would cast minimal new shadow on the Playground's southern boundary in the morning, including a very small southern section of the turf field, but not the court areas. The minimal new shadow would continue along the southern boundary throughout the day. The largest shadow cast by the Proposed Project on the Playground during the summer would occur at 1:15 p.m. and would cover approximately 1,095 square feet. By 5:00 p.m., the Proposed Project would not cast any new shadow on the playground. Shadow cast by existing buildings starts at approximately 4:00 p.m. along the western boundary of the Playground. Shadows cast on the Playground after 5:00 p.m. would be due entirely to existing buildings.

No Shadow Alternative

As part of developing alternatives that would reduce or avoid the Proposed Project's shadow impact, a No Shadow Alternative (shown on Figure 3) was developed to determine the height of

development that could be built on the project site and not result in new shadow on the Playground. The No Shadow Alternative would have 105 residential units, 226 units fewer than the project design under the Proposed Project. The height of the Mission Street residential component and the height of the Capp Street residential component would be substantially reduced, as shown on Figure 3. Under this alternative, the Mission Street component would only have a 15 foot high ground floor retail space with no residential units (163 fewer residential units than those under the Proposed Project). The ground floor of the Capp Street residential component would be set back 75 feet from the southern border of the Playground. The second setback would be 17 feet at 15 foot height. The third setback would be 35 feet at 35 feet height. The Capp Street residential component would have 23 residential units, which would be 55 residential units fewer than those under the Proposed Project. The 16th Street residential component would have eight residential levels and 82 residential units, which would be eight fewer units than those under the Proposed Project.



Source: Skidmore Owings & Merrill

Figure 3. No Shadow Alternative

Alternatives Development

Based on the characterization of the shadow as described above, reducing the size of the Capp Street residential component would have the greatest reduction in shadow impact on the Playground. Reducing the size of the Mission Street residential component would have a smaller reduction in shadow impact during the recess and lunch time (between 10:00 a.m. and 1:00 p.m., and reducing the size of the 16th Street residential component would have minimal shadow reduction. Also, given that there is no development on the Capp Street side of the project site (surface parking lot), even developing the project site with a building height of 40 feet, as is typical in the project area, would add a substantial amount of shadow on the Playground (see Figure 4). As described under the characterization of shadow above, the largest area of shadow resulting from the Proposed Project would be in the winter, and would gradually decrease during the other seasons. In addition, shadow cast on the Playground before 1:00 p.m. would mostly result from the Proposed Project. Existing buildings start to cast shadow on the Playground after 1:00 p.m. By approximately 5:00 p.m., most of the shadow

would be from existing buildings. Therefore, development of alternatives focused on reducing the shadow resulting from the Proposed Project before 1:00 p.m., and in particular during the lunch and recess time between 10:00 a.m. and 1:00 p.m.

DEC 21 - 40' BUILDING



Source: Skidmore Owings & Merrill

Figure 4. Shadow Impacts from a 40 Foot Tall Building

The Playground is used more intensively during the recess and lunch periods between 10:00 a.m. and 1:00 p.m. This time period is also when the Playground is estimated to receive the most daily sunlight. Therefore, alternatives to the Proposed Project were designed to reduce the Proposed Project's shadow with a focus of reduction during this time period.

The No Shadow Alternative was deemed infeasible and four other alternatives were developed to reduce new shadow impacts at the Playground. Alternative C would reduce the overall shadow on the Playground by raising the Playground 15 feet, thereby reducing the effective height of the existing buildings and the proposed building at the project site. Alternatives D, E, and F would reduce the overall shadow on the Playground by reducing the Proposed Project's building massing in select portions of the residential components and are therefore analyzed herein. Alternative B, also discussed in this report, would not substantially reduce the shadow on the Playground. However, it would comply with the Planning Code regulations for bulk limits at the project site.

Methodology of Shadow Analysis

Shadow impacts are expressed as a percentage of TAAS on a park with no adjacent structures present. The TAAS is the amount of sunlight that would be available in a park or open space in the course of a year if there were no shadows from structures, trees, or other facilities. TAAS is calculated in square foot hours – the expression of shadow over the course of an hour, based on 15-minute sample times – by multiplying the area in square feet of the park/open space by 3,721.4 (the maximum number of hours of sunlight available on an annual basis in San

Francisco). Quantitatively, new shadows cast by a proposed project are to be measured by the additional annual amount of shadow, expressed in sfh as a percent of TAAS. The TAAS of the existing Playground (54,615,706 sfh) is equal to its size (14,676 square feet) multiplied by the hours of sunlight available in San Francisco in a year, 3,721.4 hours. The Playground experiences a shadow load of 12,061,131 sfh from the existing buildings, which represents 22.08 percent of its TAAS.

Annual shadow impacts are analyzed and compared with the Proposed Project. In addition, as noted above, the analysis describes the shadow throughout the year and focuses on the time of day between 10:00 a.m. and 1:00 p.m. when the Playground is used more intensively. Comparisons of shaded time as a percentage of TAAS and of shadow load in square foot hours are made between the existing conditions, the alternatives, and the Proposed Project.

4 Description of Alternatives

Alternative B – Bulk Code Compliant Alternative

Similar to the Proposed Project, all existing on site structures would be demolished under Alternative B, and the project site would be redeveloped with a mixed use building that includes three residential components (Capp Street, 16th Street, and Mission Street) and ground floor retail along Mission Street and 16th Street. The Bulk Code Compliant Alternative would comply with Planning Code Section 270 Bulk Limitations governing the maximum length and maximum diagonal dimensions of buildings above 65 feet.

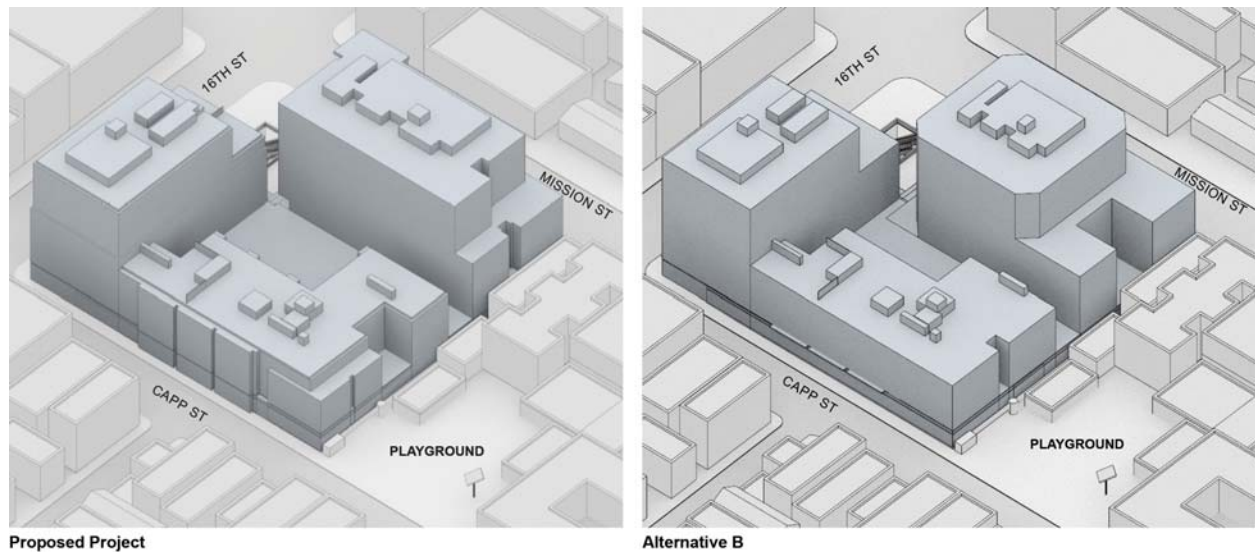
Capp Street Residential component. Under Alternative B, unlike the Proposed Project, the fifth floor of the Capp Street residential component would not be set back from the north property line.

16th Street Residential component. Above a height of 65 feet, the 16th Street residential component under Alternative B would be set back 40 feet from the Northeast BART Plaza; in comparison, the Proposed Project would have a 40 foot setback above a height of 75 feet. Below a height of 65 feet, the 16th Street residential component under Alternative B would be identical to the Proposed Project.

Mission Street Residential component. Above a height of 65 feet, the Mission Street residential component under Alternative B would be set back 6 feet from the Mission Street property line, 45 feet from the northern property line, and 25 feet from the common property line with the Northeast BART Plaza. The Proposed Project would have the same setback from the Mission Street property line (6 feet) as Alternative B. However, above a height of 65 feet, the Proposed Project would have a setback ranging from 17.5 to 30 feet from the northern property line (compared to 45 feet under Alternative B) and a 10 foot setback from the Northeast BART Plaza (compared to 25 feet under Alternative B). To meet the bulk limitation requirements, the corner of the Mission Street residential component would have chamfered corners.⁵ Below a height of 65 feet, the southwestern corner of the Mission Street residential component under Alternative B would have a 90 degree angled corner (see Figure 5).

⁵ Chamfered corners are flat surfaces resulting from cutting off the edge of a volume.

This alternative would also include a privately owned publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project. (see Figure 5).



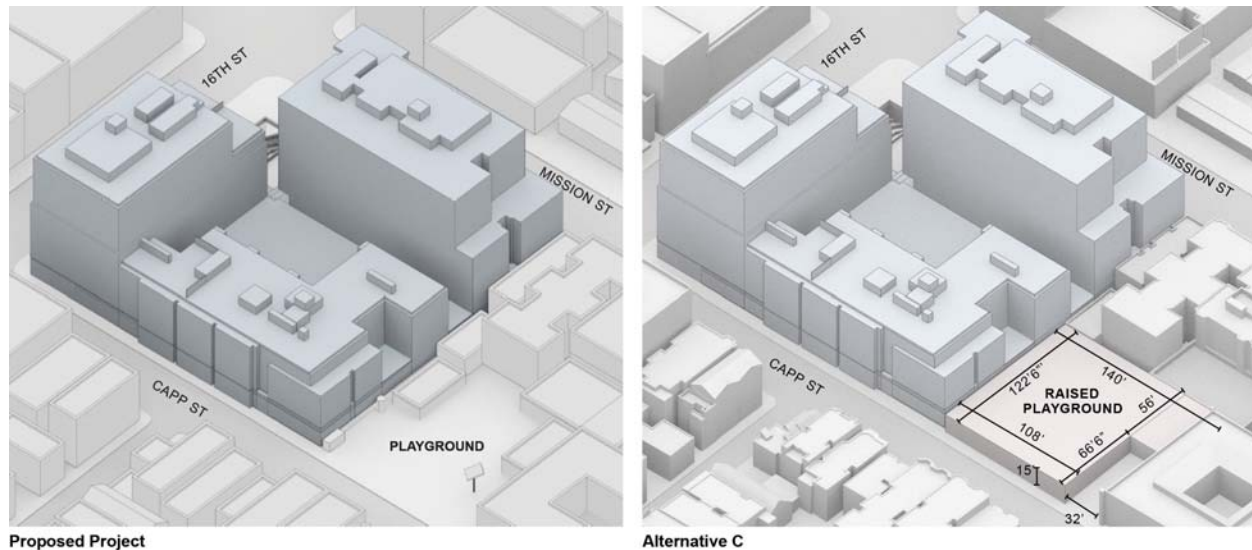
Source: Skidmore Owings & Merrill

Figure 5. Alternative B, Bulk Code Compliant Alternative

Alternative C – Raised Playground Alternative

Under the Raised Playground Alternative, the Proposed Project would be developed on the project site, with residential units, above ground-floor retail space, off street vehicular and bicycle parking and building services in the basement, and usable open space (see Figure 6). This alternative would also include a privately-owned publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project.

Under this alternative, the existing Playground and the school's one story multi-use room would be demolished, and the temporary modular building housing the library as well as the rainwater tank and photovoltaic tree would be removed. A new 15-foot- high, one-story structure would be built on the school property with a new playground (Raised Playground) on the roof (see Figure 7).



Source: Skidmore Owings & Merrill

Figure 6. Alternative C, Raised Playground Alternative

Under this alternative, the ground floor of the proposed Raised Playground structure would be used for additional school programs. Uses of the new structure may include a new multi-purpose room, a music room, a library, a classroom, storage space, an area for trash, recycle, and compost bins, and parking for up to eight cars. The final plans and use of the ground floor would be determined by the SFUSD. The northeastern corner of the existing Playground would remain open to create an at-grade open-air entry to the school. The 14,365-square-foot Raised Playground would be approximately 300 square feet (2 percent) smaller than the 14,664 square foot existing at-grade Playground. The reduction in shadow as a result of this alternative would be achieved primarily through elevating the Playground rather than modifying the proposed buildings on the project site.



Elevated Playground over Parking Garage Viewed from Capp Street

Source: Skidmore Owings & Merrill

Figure 7. Rendering of Potential Design for Raised Playground

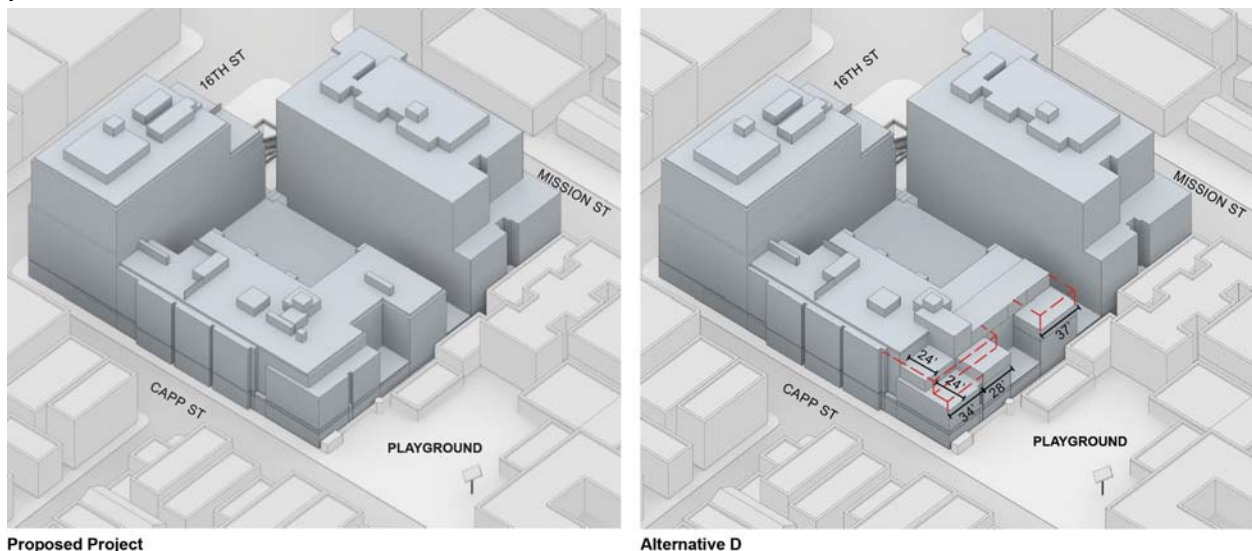
Alternative D – Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)

Similar to the Proposed Project, all existing structures on the project site would be demolished under Alternative D, and the site would be redeveloped with a mixed use (residential/retail uses) building that would include three residential components (Capp Street, 16th Street, and Mission Street), ground floor retail along Mission Street and 16th Street, parking, loading, building services, and approximately 28,053 gsf of open space. This alternative would have approximately 327 residential units, which would be four fewer units than the Proposed Project. Under Alternative D, the Mission Street and 16th Street residential components of the building would remain identical to the Proposed Project, but the height of the Capp Street residential component would vary from 35 feet to 65 feet. The height reduction would be accomplished by setting the fourth floor back 24 feet from the northern property line, and 34 feet from Capp Street at the northeastern corner as the building steps down to a three story height. At the northeastern corner, the fifth floor would be set back between 24 feet and 48 feet from the northern property line, and 34 feet from Capp Street (see Figure 8).

Alternative D would have an additional 2,447 square feet (for a total 3,192 square feet) of private usable open space, and 688 square feet less of common usable open space, when compared to the Proposed Project. The common usable open space under Alternative D would be in the form of roof decks and the qualified portion of the interior courtyard open space.⁶ Open space would include a publicly accessible ground level open space adjacent to the Northeast BART Plaza. Alternative D would require the same deviations from the Planning Code requirements as the

⁶ See Planning Code Section 135(f) for definition of private usable open space, and Section 135(g) for common usable open space, and Section 135(d) and Table 135A for amount required.

Proposed Project, and would comply with the Mission Neighborhood Commercial Transit (NCT) district zoning. Due to the increased setbacks on the northern end of the Capp Street residential component, the qualified private usable open space under Alternative D would be increased by 2,447 square feet, from 10,234 square feet under the Proposed Project to 12,681 square feet. The number of units with private open space would decrease from 29 units under the Proposed Project to none under Alternative D. This alternative would also include a privately owned publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project.



Source: Skidmore Owings & Merrill

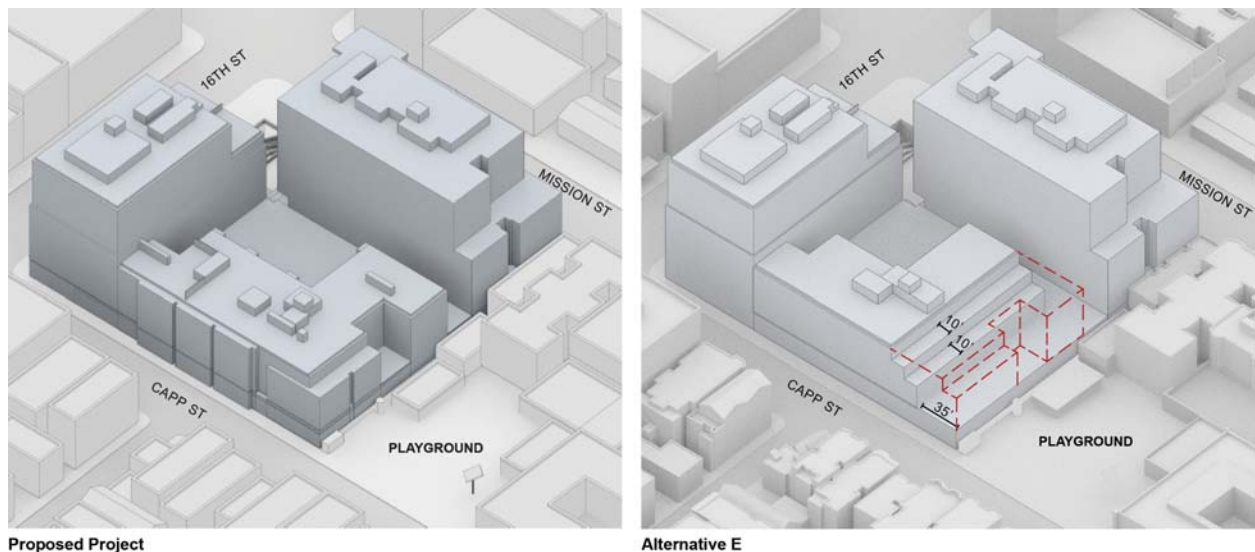
Figure 8. Alternative D – Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)

Alternative E – Reduced Shadow Alternative 2 – Reduced Capp Component (35-foot Setback)

Similar to the Proposed Project, all existing onsite structures would be demolished under Alternative E, and the site would be redeveloped with a mixed use building that would include three residential components (Capp Street, 16th Street, and Mission Street), ground floor retail along Mission Street and 16th Street, parking, loading, building services, and approximately 25,508 gsf of open space. Alternative E would include approximately 310 residential units, 21 fewer residential units than the Proposed Project. Under Alternative E, the Mission Street and 16th Street residential components of the building, and the retail uses, parking, loading, and building services would be identical to those under the Proposed Project, as shown on Figure 9. The Capp Street residential component would be 15 feet to 55 feet high, with a maximum of 71 feet to the top of the elevator penthouse. The northern end of the Capp Street building would be set back 35 feet from the northern property line above the ground floor, 45 feet at the fourth floor, and 55 feet at the fifth floor as shown on Figure 9.

Alternative E would require the same deviations from the Planning Code requirements as the Proposed Project, and would comply with NCT district zoning. Common usable open space would be provided in the form of roof decks and a portion of the interior podium courtyard. The northern 35 feet of the Capp Street residential component at the second level would include both common and private usable open space. The common usable open space totaling 25,508 square feet would decrease by 3,233 square feet when compared to the Proposed Project. Although the amount of common usable open space would decrease under this alternative, the number of residential units would also decrease by 21 units.

This alternative would provide no private usable open space. This alternative would also include a privately owned publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project..



Source: Skidmore Owings & Merrill

Figure 9. Alternative E – Reduced Shadow Alternative 2 – Reduced Capp Component (35-foot Setback)

Alternative F – Reduced Shadow Alternative 3 – Reduced Mission and Capp Components (70-foot Setback for Capp Component and 40-foot Height Reduction for Mission Component)

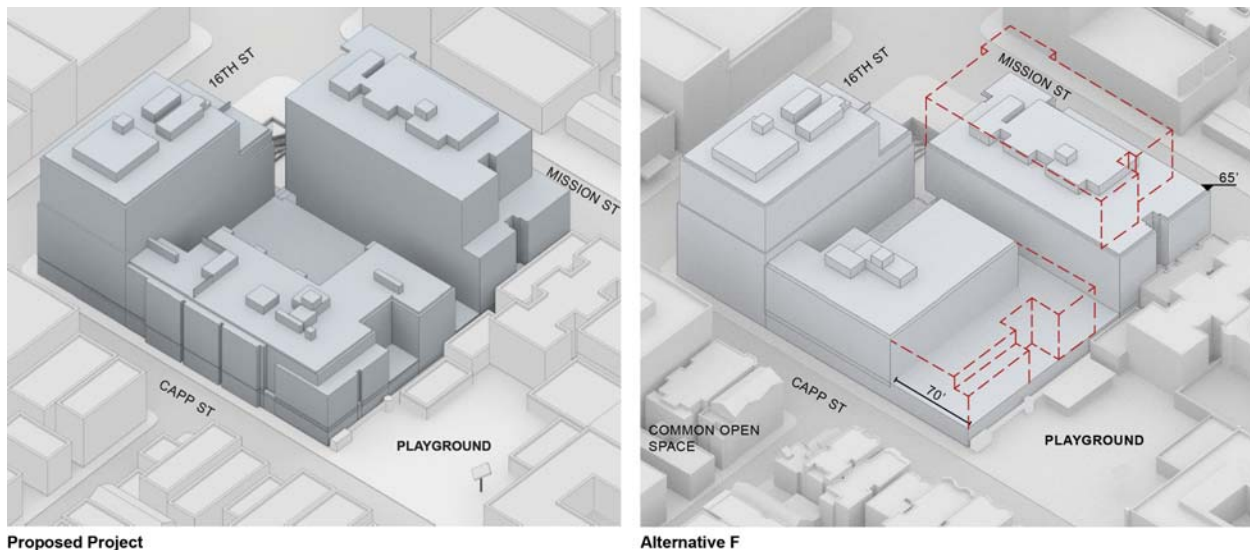
Under Alternative F, all existing onsite structures would be demolished, and the site would be redeveloped with a mixed use project with three residential components (Capp Street, 16th Street, and Mission Street) above ground floor retail. Alternative F would include 243 residential units above the second floor (Podium Level) and three residential units on the ground floor of the Capp Street building. The ground floor and basement level would be identical to the Proposed Project.

The northern end of the Capp Street residential component would be set back 70 feet above the ground floor, and the height of the Mission Street residential component would be reduced from

105 to 65 feet, when compared to the Proposed Project (see Figure 10). The 16th Street residential component would remain identical to the Proposed Project. Alternative F would contain 88 fewer residential units than the Proposed Project, and an additional 2,767 square feet of common usable space. This alternative would comply with the Mission NCT district zoning, and would require deviations from the Planning Code similar to the Proposed Project.

Compared to the Proposed Project, under Alternative F the height of the Mission Street residential component would be reduced by five levels of residential use over ground floor retail, or 65 feet high plus a 16-foot high elevator penthouse. The 16th Street residential component would be identical to the Proposed Project, with an approximately 40 foot setback above the seventh floor from the eastern property line of the BART Plaza, a maximum height of 105 feet as allowed under the Planning Code, and 121 feet to the top of the elevator penthouses (see Figure 10). The Capp Street residential component would be set back 70 feet at the second floor (Podium Level) from the northern property line, with a maximum height of 55 feet as allowed under the Planning Code, and 71 feet to the top of the elevator penthouses. The ground floor would include three at grade residential units, residential lobbies, three freight loading spaces, and one ADA accessible van parking space. Access to the parking levels and building services would be provided from Capp Street. The second through fifth floors would be for residential use only.

Alternative F would provide approximately 31,508 square feet of common usable open space in the form of roof decks and an outer court, which is 2,767 square feet more common open space for 88 fewer units than in the Proposed Project. This alternative would also include a privately owned publicly accessible ground level open space adjacent to the Northeast BART Plaza, similar to the Proposed Project..



Source: Skidmore Owings & Merrill

Figure 10. Alternative F – Reduced Shadow Alternative 3 – Reduced Mission and Capp Components, 70-foot Setback for Capp Component and 40-foot reduction in Mission Component height

5 Shadow Effects of the Alternatives

Overview

As described above, Alternatives C through F would reduce shading on the Marshall Elementary School Playground when compared to the Proposed Project, particularly during the time period between 10:00 a.m. and 1:00 p.m. Table 3 presents the shadow load that would result under each alternative on an annual basis, and Table 4 presents the shadow load that would result under each alternative between 10:00 a.m. and 1:00 p.m., the time period during which the Playground experiences more intensive use than the rest of the day. In addition, Table 5 presents the percentage by which each alternative would reduce the Proposed Project's new shadow load. Alternative B, Bulk Code Compliant Alternative, is discussed in less detail in this memorandum because it would not substantially reduce the new shadow cast by the Proposed Project. Shadow load on an annual basis for Alternative B is shown in Table 3.

Table 3
Summary of Alternatives and Proposed Project's Shadow Impact
Shadow Load on Marshall Elementary School Playground

Scenario	Existing Shadow Load (sfh)	Existing Shadow Load (Percentage of TAAS)	New Shadow Load (sfh)	New Shadow Load (Percentage of TAAS)	Total Shadow Load Existing + New Shadow (Percentage of TAAS)
Existing conditions	12,061,131	22.08	N/A	N/A	22.08
Proposed Project	12,061,131 ¹	22.08 ¹	11,785,129 ³	21.57	43.65
Alternative B	12,061,131 ¹	22.08 ¹	11,051,242 ³	20.24	42.32
Alternative C	4,157,546 ² N/A	7.75 ² N/A	11,203,056 ⁴	20.95	28.70 ^{1, 2}
Alternative D	12,061,131 ¹	22.08 ¹	9,276,878 ³	16.99	39.07
Alternative E	12,061,131 ¹	22.08 ¹	6,257,142 ³	11.46	33.54
Alternative F	12,061,131 ¹	22.08 ¹	4,814,315 ³	8.82	30.90
Notes: N/A = Not applicable sfh = square foot hours TAAS = Theoretical Available Annual Sunlight ¹ Shadow load on the Raised Playground from existing buildings would be reduced by 7,903,585 sfh or 14.33 percent due to the surface of the Playground being elevated by 15 feet. ² The Raised Playground surface area would be 14,365 square feet (300 square feet smaller than the existing Playground). Therefore, the TAAS for the Raised Playground would have 53,471,430.85 sfh of available sunlight.					

Table 4
Summary of Alternatives and Proposed Project's Shadow Impact
Shadow Load on Marshall Elementary School Playground Between 10:00 a.m. and 1:00 p.m.

Scenario	Existing Shadow Load 10 a.m. to 1 p.m. (sfh)	Existing Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS)	New Shadow Load 10 a.m. to 1 p.m. (sfh)	New Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS)	Total Shadow Load 10 a.m. to 1 p.m. Existing + New (Percentage of TAAS)
Proposed Project	61,836 ¹	0.39	435,156	2.71	3.1
Alternative C	2,233 ² N/A	N/A0.014	275,237 ¹	1.75	2.14 ^{1, 2}
Alternative D	61,836 ¹	0.39	327,258	2.04	2.43
Alternative E	61,836 ¹	0.39	139,150	0.87	1.26
Alternative F	61,836	0.39	120,307	0.75	1.14

Notes:

N/A = Not applicable

sfh = square foot hours

TAAS = Theoretical Available Annual Sunlight

¹ Shadow load on the Raised Playground from existing buildings would be reduced by 59,603 sfh due to the surface of the Playground being elevated by 15 feet. Note that this number is without any development on the project site.

² The Raised Playground surface area would be 14,365 square feet (300 square feet smaller than the existing Playground).

Table 5
Summary of Shadow Reduction from Alternatives on Marshall Elementary School Playground
between 10:00 a.m. and 1:00 p.m.

Scenario	New Shadow Load (sfh)	Percent of New Project Shadow Reduced by the Alternative ¹ (%)
Proposed Project	435,156	N/A
Alternative C	275,237	36.8 ²
Alternative D	327,258	24.8
Alternative E	139,150	68
Alternative F	120,307	72.4

Notes:

sfh = square foot hours

¹ The percent is a comparison of the new sfh of shadow for each alternative to the Proposed Project's new sfh of shadow, or $100 - \text{Alternative X sfh} / 435,156 \text{ sfh} \times 100 = \text{percent of Proposed Project shadow reduced}$.

² Alternative C New shadow hours is on a slightly smaller Raised Playground.

Alternative B – Bulk Code Compliant Alternative

The annual new shadow load on the Playground under Alternative B would be approximately 20.24 percent (11,051,242 sfh) of TAAS. Total shadow under this alternative would be 1.33 percent less than that under the Proposed Project (21.57 percent of TAAS). This minor reduction in new shadow is primarily attributable to the Mission Street residential component being set back 45 feet from the northern property line above 65 feet. With this setback the Playground would experience slightly less shadow in the afternoon hours (after 1:00 p.m.) when the sun is moving towards the west. However, this alternative would not reduce the annual new shadow during recess and lunch times when compared to the Proposed Project.

In the winter, the new shadow load on the Playground in square foot hours, as a result of Alternative B, would be approximately 4 percent lower (58,837.97 sfh) than that of the Proposed Project (61,001.39 sfh). In the autumn/spring, the new shadow load in square foot hours as a result of Alternative B would be approximately 16 percent lower (25,896.74 sfh) than that of the Proposed Project (30,984.51 sfh). In the summer, the new shadow load in square foot hours as a result of Alternative B would increase by approximately 15 percent (5,984.55 sfh) compared to the Proposed Project (5,221.12 sfh).

Similarly, in the winter between the hours of 10:00 a.m. and 1:00 p.m., the new shadow load on the Playground as a result of Alternative B would be less than 1 percent lower (29,653.18 sfh) than that of the Proposed Project (29,842.45 sfh). In the autumn/spring, during the 10:00 a.m. and 1:00 p.m. timeframe, the new shadow load in on the Playground as a result of Alternative B would be approximately 6 percent lower (9,542.34 sfh) than that of the Proposed Project (10,190.87 sfh). In the summer between the hours of 10:00 a.m. to 1:00 p.m., the new shadow load in on the Playground as a result of Alternative B would be approximately 14 percent higher (3,016.47 sfh) than that of the Proposed Project (2,654.73 sfh).

As seen above, in the winter and autumn/spring Alternative B would achieve minor reductions in new shadow load during the 10:00 a.m. to 1:00 p.m. timeframe when compared with the entire day, because the reduction in shadow would be due to the increased setback (45 feet, compared to 17.5 feet and 30 feet) of the Mission Street component, which would shade the Playground mainly during the afternoon. Therefore, because the overall reduction of new shadow achieved by Alternative B is minor, and the reduction of new shadow in the target timeframe of 10:00 a.m. to 1:00 p.m. is even lower, this alternative would not substantially reduce the shadow caused by the Proposed Project, and is not analyzed in further detail.

Alternative C – Raised Playground Alternative

Shadow Impacts of Alternative C

The existing Playground receives approximately 54,615,706 sfh of TAAS,⁷ and has an annual shadow load of 22.08 percent (or 12,061,131 sfh of shadow annually) due to shadow from the existing buildings to the east and west of the Playground.

The new shadow that would result from the proposed residential components under Alternative C (components identical to that under the Proposed Project) would be 20.95 percent of TAAS (11,203,056 sfh) (see Table 6). The total shadow load on the Raised Playground under Alternative C would result from the shadow from existing buildings, which would be reduced by elevating the Playground, and also from the shadow due to the proposed residential components. Under Alternative C, the Total Shadow Load on the Raised Playground would be 28.7 percent of the TAAS (15,360,603 sfh). The existing Playground at ground level is currently shaded approximately 22.08 percent of the time. Therefore, Alternative C would result in approximately 6.62 percent more shaded time at the Raised Playground, compared to the existing shadow conditions on the Playground.

⁷ The amount of TAAS on a park or playground is calculated by multiplying the area of the park (in square feet) by the total hours of sunlight available on an annual basis, ignoring shadows from structures or other natural phenomena, such as clouds, fog, or solar eclipses, that may obscure sunlight. For San Francisco, there are approximately 3,721.4 hours of sunlight available on an annual basis. Quantitatively, new shadows are to be measured by the additional annual amount of shadow in square foot-hours as a percent of TAAS.

Table 6
Alternative C – Annual Shadow Load on Marshall Elementary School Playground

Scenario	Existing Shadow Load (sfh) ¹	Existing Shadow Load (percentage of TAAS)	New Shadow Load (sfh)	New Shadow (percentage of TAAS) ²	Total Shadow Load (sfh)	Total Shadow Existing + New (percentage of TAAS)
Existing Shadow Conditions	12,061,131	22.08	N/A	N/A	12,061,131	22.08
Proposed Project	12,061,131	22.08	11,785,129	21.57	23,846,260	43.65
Raised Playground	N/A	N/A	11,203,056	20.95	15,360,603	28.70 ¹

Notes:
N/A = Not applicable.
sfh = square foot hours
TAAS = The amount of theoretical available annual sunlight on a park or playground is calculated by multiplying the area of the park (in square feet) by the total hours of sunlight available on an annual basis, ignoring shadows from structures or other natural phenomena, such as clouds, fog, or solar eclipses, that may obscure sunlight. For San Francisco, there are approximately 3,721.4 hours of sunlight available on an annual basis.

¹ With a Raised Playground, shadow due to existing buildings would be reduced.
² Existing Shadow Load is the sfh of shadow resulting from existing buildings.

As shown in Table 7, between 10:00 a.m. and 1:00 p.m., new shadow load on the Raised Playground under Alternative C would be 275,237 sfh, resulting in a total shadow load of 277,470 sfh.

Table 7
Shadow Load on Marshall Elementary School Playground Between 10:00 a.m. and 1:00 p.m. Alternative C Compared to Proposed Project

Scenario	Existing Shadow Load 10 a.m. to 1 p.m. (sfh)	Existing Shadow Load 10 a.m. to 1 p.m. (percentage of TAAS)	New Shadow Load 10 a.m. to 1 p.m. (sfh)	New Shadow Load 10 a.m. to 1 p.m. (percentage of TAAS)	Total Shadow Load 10 a.m. to 1 p.m. Existing + New (percentage of TAAS)
Proposed Project	61,836	0.39	435,156	2.71	3.1
Alternative C	N/A	N/A	275,237 ¹	1.75	2.14

Notes:
N/A = Not applicable
sfh = square foot hours
TAAS = Theoretical Available Annual Sunlight

¹ Shadow load on the Raised Playground from existing buildings, between 10:00 a.m. to 1:00 p.m., would be reduced by 59,603 sfh due to the surface of the Playground being elevated by 15 feet.

Alternative C would cast new shadow on the Playground throughout the year, with the largest area of shadow cast on December 20 (see Exhibit H.1). As shown in Table 8, during the winter, Alternative C would result in a total shadow load of 71,808 sfh, and would cast new shadow on the Raised Playground from approximately 8:30 a.m. through 3:54 p.m. Under Alternative C, the largest new shadow area during winter would occur at 1:00 p.m., and would be approximately 8,297 square feet in size (see Table 9 and Figure 11). During the winter, Alternative C would cast new shadow on the Raised Playground from approximately 8:30 a.m. through 3:54 p.m. Starting at 8:00 a.m., the new shadow in the winter season would cover the southwestern corner of the Raised Playground, where most of the turf field and a portion of the foursquare game area are located. By 10:00 a.m. in the winter, the new shadow under

Alternative C would cover approximately the southern half of the Raised Playground. Under Alternative C, the largest new shadow during winter would occur at 1:00 p.m., and would be approximately 8,297 square feet in size (see Exhibit H.1). As shown in Table 10, new shadow load cast by Alternative C between 10:00 a.m. and 1:00 p.m. in the winter would be approximately 23,889 sfh. At 2:00 p.m., the majority of the Raised Playground would be covered in shadow, except for the northeastern corner. Most of the shadow at 2:00 p.m. would result from Alternative C, but there would also be some shadow from existing buildings to the west of the Raised Playground. The shadow from existing buildings would combine with shadow under Alternative C in such a way that by 2:30 p.m., the Raised Playground would be entirely in shade.

Table 8
Alternative C –New Shadow Load on Marshall Elementary School Playground by Season during a Full Day

Season	Alternative C		Proposed Project		Total Shadow Load (sfh)	
	Existing Shadow Load (sfh)	New Shadow Load (sfh)	Existing Shadow Load (sfh)	New Shadow Load (sfh)	Alternative C ¹	Proposed Project
Summer (June 21)	N/A	3,329	38,694	5,221	18,410	43,915
Autumn (September 20) Spring (March 22)	N/A	28,181	34,154	30,984	62,335	65,139
Winter (December 20)	N/A	62,942	27,119	61,001	71,808	88,120
Notes: sfh = square foot hours ¹ With a Raised Playground, shadow due to existing buildings would be reduced.						

Table 9
Alternative C – Maximum New Shadow Area on Marshall Elementary School Playground between 10:00 a.m. and 1:00 p.m., by Season

Season	Alternative C		Proposed Project	
	Square Feet	Time	Square Feet	Time
Summer (June 21)	669	12:45	1,063	12:45
Autumn (September 20) Spring (March 22)	2,404	1:00	3,584	1:00
Winter (December 21)	8,297	1:00	10,123	12:15



Source: CADP

Figure 11. Maximum shadow by square foot of Alternative C

Table 10
Alternative C – Shadow Load on the Marshall Elementary School Playground by Season, between 10:00 a.m. and 1:00 p.m.

Season	Alternative C		Proposed Project		Total Shadow Load (sfh)	
	Existing Shadow Load (sfh)	New Shadow Load (sfh)	Existing Shadow Load (sfh)	New Shadow Load (sfh)	Alternative C	Proposed Project
Summer (June 21)	1.3	1,698 ¹	1,063	2,655	1,699	3,718
Autumn (September 20)	0.19	7,617 ¹	1,955	10,191	7,617	12,146
Spring (March 22)						
Winter (December 20)	115.52	23,889 ¹	4,022	29,842	24,004	33,864

Notes:
sfh = square foot hours

¹ These numbers represent new shadow on the Raised Playground, a slightly smaller playground (300 square feet smaller) on the roof of a one-story structure on the school property in the current location of the existing Playground.

The new shadow cast by Alternative C from 8:00 a.m. until 2:00 p.m. in the autumn/spring (28,181 sfh) would be at the southern portion of the Raised Playground covering the southwestern corner and a section of the foursquare game area (see Exhibit H.1). As shown in Table 10, new shadow load cast by Alternative C between 10:00 a.m. and 1:00 p.m. in the autumn/spring would be approximately 7,617 sfh. After 2:00 p.m., shadow from existing buildings located to the west of the Raised Playground begin to shade the center of the western portion of the Raised Playground and move across the Raised Playground to the east. At the same time, the Mission Street residential component would cast new shadow on a larger portion of the southwestern corner of the Raised Playground, and increase toward the foursquare game area until 5:00 p.m., after which the shadows from Alternative C would decrease. By 1 hour before sunset, most of the shadow on the Raised Playground would be from existing buildings. Although Alternative C would cast new shadow on the Raised Playground in the summer between 9:00 a.m. and 4:00 p.m., the shadow would be minimal in size and would be located along the southern boundary. The new shadow under Alternative C between 10:00 a.m. and 1:00 p.m. would be 1,698 sfh. The largest shadow cast by Alternative C on the Raised Playground during the summer would occur at 12:45 p.m., and would cover approximately 669 square feet.

Shadow Impacts of Alternative C Compared to the Proposed Project

The new shadow load on the Raised Playground under Alternative C would be substantially less than the new shadow load on the Playground as a result of the Proposed Project. This would be because the Raised Playground would be 15 feet higher than the existing Playground and shadow from existing buildings would be reduced. The new shadow load resulting from the Proposed Project on the existing Playground would be 21.57 percent of TAAS (11,785,129 sfh), and the new shadow load resulting from Alternative C would be 20.95 percent of TAAS (11,203,056 sfh) on the Raised Playground (see Table 6). The total shadow load under Alternative C would be 28.70 as a percentage of TAAS. Under the Proposed Project, the total shadow load would be 43.65 as a percentage of TAAS. Therefore, there would be a 14.95 percent reduction in the percentage of TAAS compared to existing conditions between the total shadow load on the Raised Playground under Alternative C, and the total shadow load on the existing Playground under the Proposed Project. See Exhibits H.1 and H.2, attached to this technical memorandum, for graphics of the shadows cast on the Raised Playground and quantified shadow impact results for Alternative C. As shown in Table 7, new shadow load in square foot hours on the Raised Playground under Alternative C between 10:00 a.m. and 1:00 p.m. would be 275,237 sfh.

Similar to the Proposed Project's new shadow cast on the existing Playground, Alternative C would cast new shadow on the Raised Playground throughout the year, with the largest area of shadow cast on December 20. As shown in Table 8, during winter, total shadow load cast by Alternative C would be 1,808 sfh greater than that cast by the Proposed Project.

During the winter, under Alternative C, most of the southern half of the Raised Playground would be shaded throughout the day and would become fully shaded after 2:30 p.m., due to Alternative C in combination with shadow from existing buildings. Similarly, the existing at grade Playground would be mostly shaded under the Proposed Project in the winter throughout the day, except for a small section at the northeastern corner, which would remain sunny until 2:00 p.m. The largest area of shadow in the winter between 10:00 a.m. and 1:00 p.m. under Alternative C would be 8,297 square feet. It would occur at 1:00 p.m., and would cover the

southern half and the western edge of the Raised Playground. The largest area of shadow during that time period under the Proposed Project would occur at 12:15 p.m. and would be 10,123 square feet. It would cover the southern two thirds of the existing Playground, including the foursquare game area, kickball diamond, basketball hoop, and most of the turf field.

In the autumn/spring, the new shadow cast by Alternative C would cover the southwestern corner of the Raised Playground and a section of the foursquare game area starting at 8:00 a.m. and lasting until 5:00 p.m. (see Exhibits H.1 and H.2). Similarly, the new shadow cast by the Proposed Project during this time period would cover the southern portion of the existing Playground starting at 8:00 a.m., and would increase slowly throughout the day until 5:00 p.m. The largest area of shadow cast by Alternative C on the Raised Playground between 10:00 a.m. and 1:00 p.m. in the autumn/spring would be 2,404 square feet, and would occur at 1:00 p.m. (see Table 9). The largest area of shadow cast by the Proposed Project during the same time period would be 3,584 square feet, and would also occur at 1:00 p.m. As shown in Table 8, the total shadow cast by Alternative C during the autumn/spring would be 2,335 sfh less than that cast by the Proposed Project.

As shown in Table 10, in the autumn/spring the total shadow load under the Proposed Project would be greater, 12,146 sfh, compared to 7,617 sfh under Alternative C.

In the summer, a small area would be shaded along the southern boundary of the Raised Playground under Alternative C, or the existing Playground under the Proposed Project. However, new shadow on the Raised Playground that would result under Alternative C would be slightly less than the new shadow cast by the Proposed Project on the existing Playground (see Exhibits H.1 and H.2). As shown in Table 10, in the summer between 10:00 a.m. and 1:00 p.m., the total shadow load under Alternative C would be 1,699 sfh. During this time period, the total shadow load under the Proposed Project would be 3,718 sfh.

Summary

There would be a 14.95 percent reduction in the percentage of TAAS compared to existing conditions between the total shadow load on the Raised Playground under Alternative C, and the total shadow load on the existing Playground under the Proposed Project. This is because Alternative C would substantially reduce the shadow on the Raised Playground from the existing buildings, when compared to the existing shadow on the current Playground. In addition, the Raised Playground would be about 2 percent smaller (330 square feet). Therefore, there would be a small decrease in shadow attributable to decreased size of the Raised Playground.

Between 10:00 a.m. and 1:00 p.m., new shadow cast on the Raised Playground under Alternative C or the existing Playground under the Proposed Project would result from the Capp Street Component. During this time period, the new shadow load in sfh on the Raised Playground under Alternative C would be 36.7 percent less than the new shadow load in sfh on the existing Playground under the Proposed Project. In the winter between 10:00 a.m. and 1:00 p.m., approximately the southern half of the Raised Playground would be shaded under Alternative C. Under the Proposed Project, most of the existing Playground would be shaded during this time period. During the autumn/spring, the portion of the Raised Playground south of the foursquare game areas would be shaded under Alternative C or the Proposed Project. The edge of the southern boundary of the Playground would be shaded during the summer under Alternative C or the Proposed Project.

Alternative D – Reduced Shadow Alternative 1 – Reduced Capp Component (Sculpted Northeast Side)

Under Alternative D, the northeastern corner of the Capp Street residential component would have setbacks at the fifth and fourth floors adjacent to the Playground, which would reduce the shadow impact under Alternative D from the Capp Street residential component when compared to the Proposed Project. Floors one through three would remain identical to the Proposed Project. As presented in Table 11, Alternative D would result in a new shadow load of 16.99 percent of TAAS. The total shadow load on the Playground under Alternative D would be 39.07 percent of TAAS. Exhibits I.1 and I.2 provide graphics of the shadows cast on the Playground and quantified shadow impact results for Alternative D, respectively.

Table 11
Comparison of Alternative D to the Proposed Project, Shadow Load on Marshall Elementary School Playground

Scenario	Existing Shadow Load (sfh)	Existing Shadow Load as Percentage of TAAS	New Shadow Load (sfh)	New Shadow (Percentage of TAAS) ¹	Total Shadow Load (sfh)	Total Shadow Existing + New (Percentage of TAAS)
Existing Shadow Conditions	12,061,131	22.08	N/A	N/A	12,061,131	22.08
Proposed Project	12,061,131	22.08	11,785,129	21.57	23,846,260	43.65 ¹
Alternative D	12,061,131	22.08	9,276,878	16.99	21,338,009	39.07 ¹
Notes: N/A = Not applicable sfh = square foot hours TAAS = Theoretical Available Annual Sunlight ¹ New shadow as a percentage of TAAS would be reduced by 4.58 percent under Alternative D when compared to the Proposed Project (21.57 percent of TAAS – 16.99 percent of TAAS).						

As shown in Table 12, between 10:00 a.m. and 1:00 p.m., new shadow load on the Playground under Alternative D would be 327,258 sfh, with a total shadow load of 389,094 sfh.

Alternative D would cast new shadow on the Playground throughout the year with the largest area of shadow being cast on December 20. During the winter, as shown in Table 13, Alternative D would result in a total shadow load of 78,210 sfh. The largest new shadow area, 8,337 square feet in size, would occur at 1:00 p.m. in the winter, and would cover most of the turf field, and all the foursquare game area, the basketball hoop, and the kickball diamond (see Table 14 and Figure 12). Under Alternative D, these sections of the Playground would start to be partially shaded in the winter at 9:00 a.m., and would continue to be shaded until after 3:00 p.m. As shown in Table 15, total shadow load cast by Alternative D between 10:00 a.m. and 1:00 p.m. in the winter would be approximately 31,184 sfh. During winter, between 9:00 a.m. and 1:00 p.m. shadow would only result from Alternative D. Between 1:00 p.m. and 3:00 p.m., both Alternative D and existing buildings would shade the Playground. The Playground would be shaded only by existing buildings after 3:00 p.m. until sunset.

Table 12
Shadow Load on Marshall Elementary School Playground Between 10:00 a.m. and 1:00 p.m.
Alternative D Compared to the Proposed Project

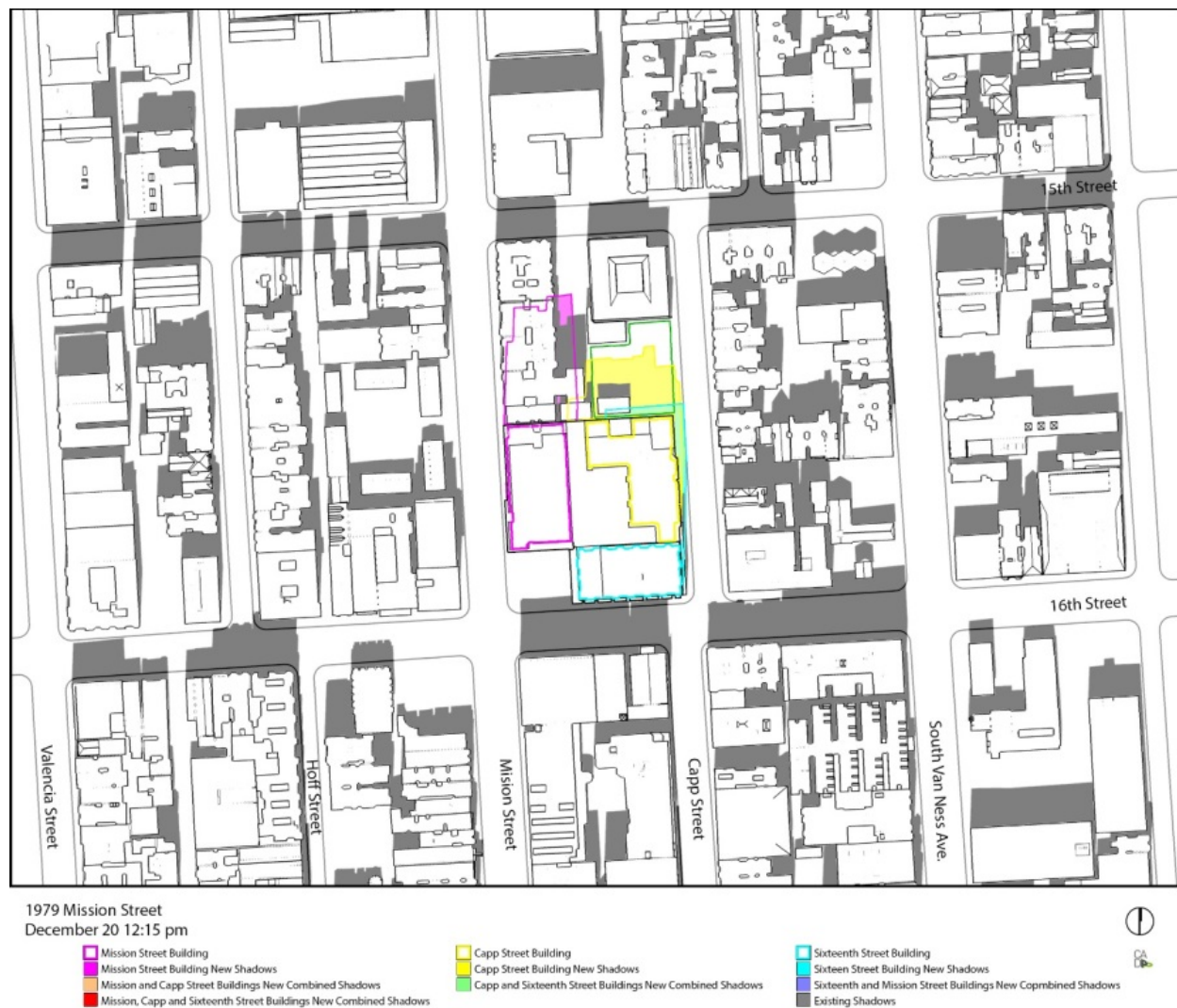
Scenario	Existing Shadow Load 10 a.m. to 1 p.m. (sfh)	Existing Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS)	New Shadow Load 10 a.m. to 1 p.m. (sfh)	New Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS)	Total Shadow Load 10 a.m. to 1 p.m. Existing + New (Percentage of TAAS)
Proposed Project	61,836	0.39 ¹	435,156 ²	2.71	3.1
Alternative D	61,836	0.39 ¹	327,258	2.04	2.43
Notes: N/A = Not applicable sfh = square foot hours TAAS = Theoretical Available Annual Sunlight ¹ The Playground surface area would remain 14,665 square feet, as under existing conditions. Therefore, the TAAS for the Playground during the 10 a.m. to 1 p.m. time period would be would be 16,058,175 sfh of available sunlight.					

Table 13
Alternative D –New Shadow Load on the Playground by Season during a Full Day

Season	Alternative D New Shadow Load (sfh)	Proposed Project New Shadow Load (sfh)	Total Shadow Load (sfh)	
			Alternative D	Proposed Project
Summer (June 21)	4,629	5,221	43,652	43,915
Autumn (September 20) Spring (March 22)	21,620	30,984	55,775	65,139
Winter (December 20)	51,091	61,001	78,210	88,120
Notes: sfh = square foot hours				

Table 14
Alternative D – Maximum New Shadow Area on Playground during the 10 a.m. to 1 p.m. hours, by Season

Season	Alternative D		Proposed Project	
	New Shadow Square Feet	Time of Maximum New Shadow	New Shadow Square Feet	Time of Maximum New Shadow
Summer (June 21)	913	12:45	1,063	12:45
Autumn (September 20) Spring (March 22)	2,551	1:00	3,584	1:00
Winter (December 20)	8,337	1:00	10,123	12:15



Source: CADP

Figure 12. Alternative D – Maximum new shadow by square foot

Table 15
Alternative D – Shadow Load on Playground by Season, from 10:00 a.m. to 1:00 p.m.

Season	Alternative D New Shadow Load (sfh)	Proposed Project New Shadow Load (sfh)	Alternative D Compared to the Proposed Project Change in New Shadow Load (sfh)	
			Alternative D	Proposed Project
Summer (June 21)	2,325	2,655	3,577	3,718
Autumn (September 20) Spring (March 22)	6,597	10,191	11,413	12,146
Winter (December 20)	23,819	29,842	31,184	33,864
Notes: sfh = square foot hours				

The new shadow cast by Alternative D in the autumn/spring would mostly be between 10:00 a.m. and 5:00 p.m., and would cover the southern side of the Playground, shading half of the foursquare game area and a portion of the turf field. During autumn/spring, the largest new shadow area, 2,551 square feet in size, would occur at 1:00 p.m.. As shown in Table 15, total shadow under Alternative D between 10:00 a.m. and 1:00 p.m. in the autumn/spring seasons would be approximately 11,413 sfh, and would cover a section of the southern boundary of the Playground at approximately the middle of the foursquare game area. Under Alternative D, these sections of the Playground would start to be partially shaded in the autumn/spring at 9:00 a.m., and would continue to be shaded for the rest of the day. Before that time (sunrise to 9:00 a.m.), most of the Playground is shaded by existing buildings. Between 9:00 a.m. and 2:00 p.m., shadow would only result from Alternative D. Between 2:00 p.m. and 5:00 p.m., both Alternative D and existing buildings would shade the Playground and would entirely cover the turf field, the kickball diamond, and the foursquare game area. By 6:00 p.m., the Playground would be fully shaded by existing buildings.

In the summer season, Alternative D would cast minimal new shadow on the Playground, mostly between 12:00 p.m. and 3:00 p.m. The largest shadow cast by Alternative D on the Playground during the summer would occur at 12:45 p.m. and would cover approximately 913 square feet. The new shadow would be on the southern property line between the Playground and the Capp Street residential component (see Exhibits I.1 and I.2). As shown in Table 15, between 10:00 a.m. and 1:00 p.m. in the summer season, the total shadow by Alternative D would be 3,577 sfh.

Shadow Impacts of Alternative D Compared to the Proposed Project

There would be a 4.58 percent reduction in the percentage of TAAS compared to existing conditions between the total shadow load on the Playground under Alternative D (39.07 percent) and the total shadow load on the Playground under the Proposed Project (43.65 percent). Under Alternative D, the new shadow in square foot hours would be reduced by approximately 21.3 percent, when compared to shadow from the Proposed Project. As shown in Table 12, new shadow load in sfh on the Playground under Alternative D between 10:00 a.m. and 1:00 p.m. would be approximately 24.8 percent less than that on the Playground under the Proposed Project.

Similar to Alternative D, the Proposed Project would result in new shadow throughout the year. However, new shadow cast by Alternative D would be slightly smaller than that cast by the Proposed Project. This would result from the setbacks at the fourth and fifth floors of the northeastern corner of the Capp Street residential component under Alternative D.

During the winter, the Playground would be mostly shaded throughout the day under either Alternative D or the Proposed Project, except for a small section at the northeastern corner, which would remain sunny until 2:00 p.m. However, new shadow under Alternative D would be slightly less than that cast by the Proposed Project. In the winter, between 10:00 a.m. and 1:00 p.m., the Playground would be mostly shaded under Alternative D or the Proposed Project. However, as shown in Table 15, total shadow load cast by Alternative D (31,184 sfh) would be smaller than that cast by the Proposed Project (33,864 sfh). Between 10:00 a.m. to 1:00 p.m., the largest area of shadow under Alternative D would occur at 1:00 p.m. and would be

approximately 8,336 square feet in size. Under the Proposed Project, the largest area of shadow would occur at 12:15 p.m. and would be approximately 10,123 square feet in size.

In the autumn/spring, similar to the Proposed Project, Alternative D would result in an increasing new shadow throughout the day along the southern portion of the Playground. However as shown in Table 13, total shadow load would be less under Alternative D (55,775 sfh) than under the Proposed Project (65,139 sfh). Under Alternative D, larger portions of the foursquare game area and the turf field would remain sunny for parts of the morning until 2:00 p.m., compared to conditions under the Proposed Project (see Exhibits I.1 and I.2). The largest area of shadow in the autumn/spring would occur at 1:00 p.m. under both Alternative D and the Proposed Project, and would be 2,551 square feet and 3,584 square feet, respectively.

In the autumn/spring season between 10:00 a.m. and 11:00 p.m., similar to the Proposed Project, the Playground would be shaded along the southern boundary and would cover portions of the foursquare game area. However, as shown in Table 15, total shadow load under Alternative D (11,413 sfh) would be less than that cast by the Proposed Project (12,146 sfh) during the same time period. As shown in Table 14, the largest area of shadow in the autumn/spring between 10:00 a.m. and 1:00 p.m. under Alternative D would be 2,551 square feet, and would occur at 1:00 p.m. The largest area of shadow during that time period under the Proposed Project would be 3,584 square feet, and would also occur at 1:00 p.m.

Similar to the Proposed Project, Alternative D would result in minimal new shadow along the southern edge of the Playground during the summer season, and would start at 10:00 a.m. and stay until 4:00 p.m. As shown in Table 13, the total shadow load under Alternative D (43,652 sfh) would be less than that under the Proposed Project (43,915 sfh). Total shadow load that would occur between 10:00 a.m. and 1:00 p.m. under Alternative D (3,577 sfh) would be slightly less than that cast by the Proposed Project (3,718 sfh) (see Table 15).

Summary

There would be a 4.58 percent reduction in shadow as a percentage of TAAS compared to existing conditions between the total shadow load on the Playground under Alternative D and the total shadow load on the Playground under the Proposed Project. The proposed residential components under Alternative D would result in a new shadow load of 16.99 percent of TAAS. Alternative D would shade the Playground approximately 39 percent of the time before 1:00 p.m. during winter and would cover most of the turf field, the foursquare game area, the basketball hoop, and the kickball diamond. Alternative D would also cover the southern portion of the turf field and the foursquare game area during autumn/spring. Alternative D would result in 21.3 percent less shadow in square foot hours when compared to the Proposed Project. In addition, the new shadow in square foot hours on the Playground under Alternative D between 10:00 a.m. and 1:00 p.m. would be approximately 24.8 percent less than that on the Playground under the Proposed Project. The shadow reduction under Alternative D would result from the setbacks of the fifth and fourth floors at the northeastern corner of the Capp Street residential component adjacent to the Playground.

Similar to the Proposed Project between 10:00 a.m. and 1:00 p.m., the majority of the Playground would be shaded under Alternative D during winter. During autumn/spring, the southern boundary of the Playground, including portions of the foursquare game area, would be shaded under both Alternative D and the Proposed Project. However, because of the setbacks

of the Capp Street residential component under Alternative D, shadow loads during this time period throughout the seasons would be smaller than those cast by the Proposed Project.

Alternative E – Reduced Shadow Alternative 2 – Reduced Capp Component (35-foot Setback)

Shadow Impacts of Alternative E

Under Alternative E, the northern end of the Capp Street building adjacent to the Playground, would be set back 35 feet from the northern property line above the ground floor, set back 45 feet at the fourth floor, and set back 55 feet at the fifth floor. The setbacks would reduce the shadow impact from the Capp Street residential component when compared to the Proposed Project. As presented in Table 16, Alternative E would result in a new shadow load of 11.46 percent of TAAS. The total shadow load on the Playground under Alternative E would be 33.54 percent of TAAS. Exhibits J.1 and J.2 provide graphics of the shadows cast on the Playground and quantified shadow impact results for Alternative E, respectively.

As shown in Table 17, between 10:00 a.m. and 1:00 p.m., new shadow load on the Playground under Alternative E would be 139,150 sfh, with a total shadow load of 200,986 sfh. New shadow during this period would result mostly from the Capp Street residential component.

Table 16
Comparison of Alternative E to the Proposed Project, Shadow Load on Marshall Elementary School Playground

Scenario	Existing Shadow Load (sfh) ¹	Existing Shadow Load as Percentage of TAAS	New Shadow Load (sfh)	New Shadow (Percentage of TAAS) ²	Total Shadow Load (sfh)	Total Shadow Existing + New (Percentage of TAAS)
Existing Shadow Conditions	12,061,131	22.08	N/A	N/A	12,061,131	22.08
Proposed Project	12,061,131	22.08	11,785,129	21.57	23,846,260	43.65 ²
Alternative E	12,061,131	22.08	6,257,143	11.46	18,318,274	33.54 ²
Notes: N/A = Not applicable sfh = square foot hours TAAS = Theoretical Available Annual Sunlight ¹ The TAAS for the Playground is 54,615,706 sfh. ² New shadow as a percentage of TAAS would be reduced by 10.11 percent under Alternative E when compared to the Proposed Project (21.57 percent of TAAS – 11.46 percent of TAAS).						

Table 17
Shadow Load on Marshall Elementary School Playground Between 10:00 a.m. and 1:00 p.m.
Alternative E Compared to the Proposed Project

Scenario	Existing Shadow Load 10 a.m. to 1 p.m. (sfh)	Existing Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS) ¹	New Shadow Load 10 a.m. to 1 p.m. (sfh)	New Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS)	Total Shadow Load 10 a.m. to 1 p.m. Existing + New (Percentage of TAAS)
Proposed Project	61,836	0.39	435,156	2.71	3.1
Alternative E	61,836	0.39	139,150	0.87	1.26

Notes:
N/A = Not applicable
sfh = square foot hours
TAAS = Theoretical Available Annual Sunlight
¹ The Playground surface area would remain 14,665 square feet, as under existing conditions. Therefore, the TAAS for the Playground during the 10 a.m. to 1 p.m. time period would be 16,058,175 sfh of available sunlight.

Alternative E would cast new shadow on the Playground throughout the year, with the largest area of shadow cast on December 20. During winter, as shown in Table 18, Alternative E would result in a new shadow load of 36,211 sfh, and would cast new shadow on the Playground from approximately 8:30 a.m. through 3:54 p.m. It would have the largest new shadow area of 4,779 square feet at 1:00 p.m., and would cover the western half of the turf field and the foursquare game area (see Table 19 and Figure 13). As shown in Table 20, total shadow load cast by Alternative E between 10:00 a.m. and 1:00 p.m. in winter would be approximately 17,066 sfh.

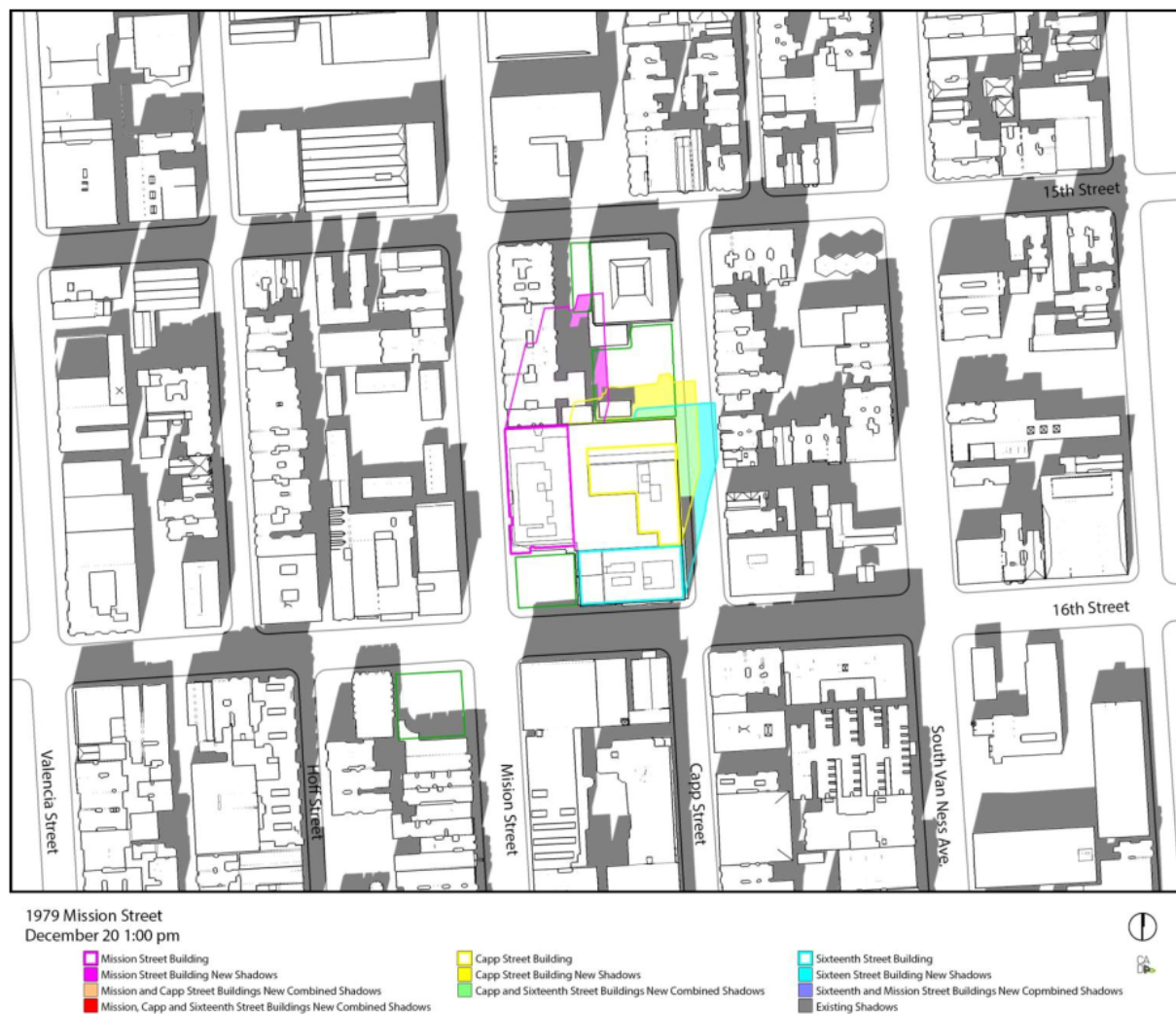
Table 18
Alternative E – New Shadow Load on the Playground by Season during a Full Day

Season	Alternative E New Shadow Load (sfh)	Proposed Project New Shadow Load (sfh)	Total Shadow Load (sfh)	
			Alternative E	Proposed Project
Summer (June 21)	2,022	5,221	40,716	43,915
Autumn (September 20) Spring (March 22)	15,786	30,984	49,940	65,139
Winter (December 20)	36,211	61,001	63,330	88,120

Notes:
sfh = square foot hours

Table 19
Alternative E – Maximum New Shadow Area on Playground during the 10 a.m. to 1 p.m. hours,
by Season

Season	Alternative E		Proposed Project	
	New Shadow (Square Feet)	Time of Maximum New Shadow	New Shadow (Square Feet)	Time of Maximum New Shadow
Summer (June 21)	440	12:45	1,063	12:45
Autumn (September 20) Spring (March 22)	1,246	1:00	3,584	1:00
Winter (December 20)	4,779	1:00	10,123	12:15



Source: CADP

Figure 13. Alternative E – Maximum new shadow by square foot

Table 20
Alternative E – Shadow Load on Playground by Season, from 10:00 a.m. to 1:00 p.m.

Season	Alternative E New Shadow Load (sfh)	Proposed Project New Shadow Load (sfh)	Total Shadow Load (sfh)	
			Alternative E	Proposed Project
Summer (June 21)	1,108	2,655	2,171	3,718
Autumn (September 20) Spring (March 22)	3,865	10,191	5,820	12,146
Winter (December 20)	13,044	29,842	17,066	33,864
Notes: sfh = square foot hours				

During autumn/spring, the largest new shadow area under Alternative E, 1,246 square feet in size, would occur at 1:00 p.m., and would cover the southernmost portion of the Playground, shading a minor portion of the foursquare game area (Exhibit J.1). Under Alternative E, these sections of the Playground would start to be partially shaded in the autumn/spring at 9:00 a.m. and would continue to be shaded for the rest of the day. Before 9:00 a.m., most of the Playground is shaded by existing buildings, except for the southern portion of the turf field, which remains sunny. Between 9:00 a.m. and 2:00 p.m., shadow would only result from Alternative E. As shown in Table 20, total shadow load cast by Alternative E between 10:00 a.m. and 1:00 p.m. in the autumn/spring would be approximately 5,820 sfh. Between 2:00 p.m. and 5:00 p.m., both Alternative E and existing buildings would shade the Playground and would cover the turf field, the kickball diamond, and the foursquare game area. By 6:00 p.m., the Playground would be fully shaded, mostly by existing buildings.

In the summer, Alternative E would cast minimal new shadow on the Playground between 11:00 a.m. and 3:00 p.m. The largest shadow cast by Alternative E on the Playground during the summer would occur at 12:45 p.m., and would cover approximately 440 square feet. The new shadow resulting from Alternative E would occur on the very edge of the southern boundary of the Playground (see Exhibit J.1). As shown in Table 20, between 10:00 a.m. and 1:00 p.m. in the summer, the total shadow cast by Alternative E would be 2,171 sfh. In the summer, Alternative E would cast minimal new shadow on the Playground between 11:00 a.m. and 3:00 p.m. The largest shadow cast by the Alternative E on the Playground during the summer would occur at 12:45 p.m., and would cover approximately 440 square feet. The new shadow resulting from Alternative E would occur on the very edge of the southern boundary of the Playground (see Exhibit J.1).

Shadow Impacts of Alternative E Compared to the Proposed Project

There would be a 10.11 percent reduction in shadow as a result of the percentage of TAAS between the total shadow load on the Playground under Alternative E (33.54 percent) and the total shadow load on the Playground under the Proposed Project (43.65 percent). Under Alternative E, the new shadow in square foot hours would be reduced by approximately 47 percent, when compared to the Proposed Project. As shown in Table 17, new shadow load in square foot hours on the Playground under Alternative E between 10:00 a.m. and 1:00 p.m. would be approximately 68 percent less than that on the Playground under the Proposed Project.

Similar to the Proposed Project, Alternative E would result in new shadow throughout the year. However, new shadow cast by Alternative E would be substantially smaller compared to the Proposed Project due to the setbacks above the ground floor of the Capp Street residential component along the northern boundary.

In winter, between 10:00 a.m. and 1:00 p.m., the Playground would be mostly shaded under the Proposed Project. During the winter, under Alternative E, the middle portion of the Playground, including the basketball hoop, kickball diamond, and northern half of the turf field, would remain sunny from 9:00 a.m. until 2:00 p.m. During that same period of the day, the Playground would be mostly shaded under the Proposed Project, except for a small section at the northeastern corner. The largest area of shadow under Alternative E would occur at 1:00 p.m., and would be approximately 4,779 square feet in size. Under the Proposed Project, the largest area of shadow would occur at 12:15 p.m., and would be approximately 10,123 square feet in size. As shown in Table 20, between 10:00 a.m. and 1:00 p.m., total shadow in square foot hours cast by Alternative E (17,066 sfh) would be reduced by approximately 48 percent, compared with the Proposed Project (33,064 sfh). Between 10:00 a.m. to 1:00 p.m., the largest area of shadow under Alternative E would occur at 1:00 p.m., and would be approximately 4,779 square feet in size.

In the autumn/spring, similar to the Proposed Project, new shadow on the Playground under Alternative E would be cast on the southern end of the Playground starting at 9:00 a.m., and would gradually increase for the rest of the day. However, the extent of the shadow would be substantially reduced compared with the Proposed Project. As shown in Table 18, total shadow load would be less under Alternative E (49,940 sfh) than total shadow under the Proposed Project (65,139 sfh). Under Alternative E, the foursquare game area would not be shaded until approximately 4:00 p.m., compared to being shaded throughout the day, after approximately 10:00 a.m. under the Proposed Project (see Exhibits J.1 and J.2). The largest area of shadow in autumn/spring under Alternative E would be 1,246 square feet, and would occur at 1:00 p.m. at the southern edge of the Playground. The largest area of shadow during that time period under the Proposed Project would occur at the same location and time. However, it would be 3,584 square feet in size.

Under Alternative E, in autumn/spring between 10:00 a.m. and 1:00 p.m., the Playground would be shaded along the southern boundary, similar to the Proposed Project. However, the shaded area would be smaller under this alternative, and would not reach the foursquare game area compared to the Proposed Project. As shown in Table 20, total shadow load under Alternative E (5,820 sfh) would be substantially less than that cast by the Proposed Project (12,146 sfh) during the same time period. As shown in Table 19, the largest area of shadow in autumn/spring between 10:00 a.m. and 1:00 p.m. under Alternative E would be 1,246 square feet, and would occur at 1:00 p.m. at the southern edge of the Playground. The largest area of shadow during that time period under the Proposed Project would occur at the same location and time. However, it would be 3,584 square feet in size.

Similar to the Proposed Project, Alternative E would result in a minor area of new shadow along the southern edge of the Playground during summer. Also similar to the Proposed Project, this area would be shaded from approximately 10:00 a.m. until approximately 4:00 p.m. As shown in Table 18, the total shadow load under Alternative E (40,716 sfh) would be less than that under the Proposed Project (43,915 sfh) during summer. New shadow load that would occur

between 10:00 a.m. and 1:00 p.m. under Alternative E (1,108 sfh) would be substantially less than that cast by the Proposed Project (2,655 sfh).

Summary

There would be an 11.46 percent reduction in the shadow as a percentage of TAAS between the total shadow load on the Playground under Alternative E and the total shadow load on the Playground under the Proposed Project. The proposed residential components under Alternative E would result in a new shadow load of 11.46 percent of TAAS. Therefore, the total shadow load on the Playground under Alternative E would be 33.54 percent of TAAS. Alternative E would result in 10.11 percent less shadow in sfh when compared to the Proposed Project. In addition, the new shadow in sfh on the Playground under Alternative E between 10:00 a.m. and 1:00 p.m. would be approximately 68 percent less than that on the Playground under the Proposed Project. The shadow reduction under Alternative E would result from the setbacks above the ground floor of the Capp Street residential component adjacent to the Playground.

Between 10:00 a.m. and 1:00 p.m. during winter, the Playground would be mostly sunny under Alternative E, compared to being mostly shaded under the Proposed Project. During autumn/spring, the Playground would be shaded along the southern boundary, but the foursquare game areas would not be shaded until after approximately 4:00 p.m. under Alternative E, compared to being shaded throughout the day after approximately 10:00 a.m. under the Proposed Project. Because of the setbacks of the Capp Street component under Alternative E, shadow loads during this time period throughout the seasons would be smaller than those cast by the Proposed Project.

Alternative F – Reduced Shadow Alternative 3 – Reduced Mission and Capp Components (70-foot Setback for Capp Component and 40-foot Height Reduction for Mission Component)

Shadow Impacts of Alternative F

Under Alternative F, the northern end of the Capp Street residential component would be set back 70 feet above the ground floor from the north property line, and the height of the Mission Street residential component would be reduced from 105 to 65 feet, compared to the Proposed Project. As presented in Table 21, Alternative F would result in a new shadow load of 8.82 percent of TAAS. The total shadow load on the Playground under Alternative F would be 30.90 percent of TAAS. Exhibits K.1 and K.2 provide graphics of the shadows cast on the Playground and quantified shadow impact results for Alternative F, respectively.

As shown in Table 22, between 10:00 a.m. and 1:00 p.m., new shadow load on the Playground under Alternative F would be 120,308 sfh, with a total shadow load of 182,144 sfh. New shadow during this period would result mostly from the Capp Street residential component.

Table 21
Comparison of Alternative F to the Proposed Project, Shadow Load on Marshall Elementary School Playground

Scenario	Existing Shadow Load (sfh) ¹	Existing Shadow Load as Percentage of TAAS ¹	New Shadow Load (sfh)	New Shadow (Percentage of TAAS) ²	Total Shadow Load (sfh)	Total Shadow Existing + New (Percentage of TAAS)
Existing Shadow Conditions	12,061,131	22.08	N/A	N/A	12,061,131	22.08
Proposed Project	12,061,131	22.08	11,785,129	21.57	23,846,260	43.65 ²
Alternative F	12,061,131	22.08	4,814,316	8.82	16,875,447	30.90 ²
Notes: N/A = Not applicable sfh = square foot hours TAAS = Theoretical Available Annual Sunlight ¹ The TAAS for the Playground is 54,615,706 sfh. ² New shadow as a percentage of TAAS would be reduced by 12.75 percent under Alternative E when compared to the Proposed Project (21.57 percent of TAAS – 8.82 percent of TAAS).						

Table 22
Shadow Load on Marshall Elementary School Playground Between 10:00 a.m. and 1:00 p.m. Alternative F Compared to the Proposed Project

Scenario	Existing Shadow Load 10 a.m. to 1 p.m. (sfh)	Existing Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS)	New Shadow Load 10 a.m. to 1 p.m. (sfh)	New Shadow Load 10 a.m. to 1 p.m. (Percentage of TAAS)	Total Shadow Load 10 a.m. to 1 p.m. Existing + New (Percentage of TAAS)
Proposed Project	61,836	0.39	435,156	2.71	3.1
Alternative F	61,836	0.39	120,308	0.75	1.14
Notes: N/A = Not applicable sfh = square foot hours TAAS = Theoretical Available Annual Sunlight ¹ The Playground surface area would remain 14,665 square feet, as under existing conditions. Therefore, the TAAS for the Playground during the 10 a.m. to 1 p.m. time period would be 16,058,175 sfh of available sunlight.					

Alternative F would cast new shadow on the Playground throughout the year, with the largest area of shadow cast on December 20. During winter, as shown in Table 23, Alternative F would result in a new shadow load of 26,562 sfh, and would cast new shadow on the Playground from approximately 8:30 a.m. through 3:54 p.m. The largest new shadow area would be 3,064 square feet at 12:15 p.m. (see Table 24 and Figure 14). Between 9:00 a.m. and 10:00 a.m., both Alternative F and existing buildings would partially shade the Playground, with existing buildings shading the eastern edge of the Playground and Alternative F shading the southern portion of the turf field and most of the foursquare game area. Between 10:00 a.m. and 1:00 p.m. during the winter, Alternative F would continue to shade the same sections of the Playground with no shadow from existing buildings. Between 1:00 p.m. and 2:15 p.m. in the winter, shadow from Alternative F would increase to cover all of the turf field and the foursquare

Table 23
Alternative F – New Shadow Load on the Playground by Season during a Full Day

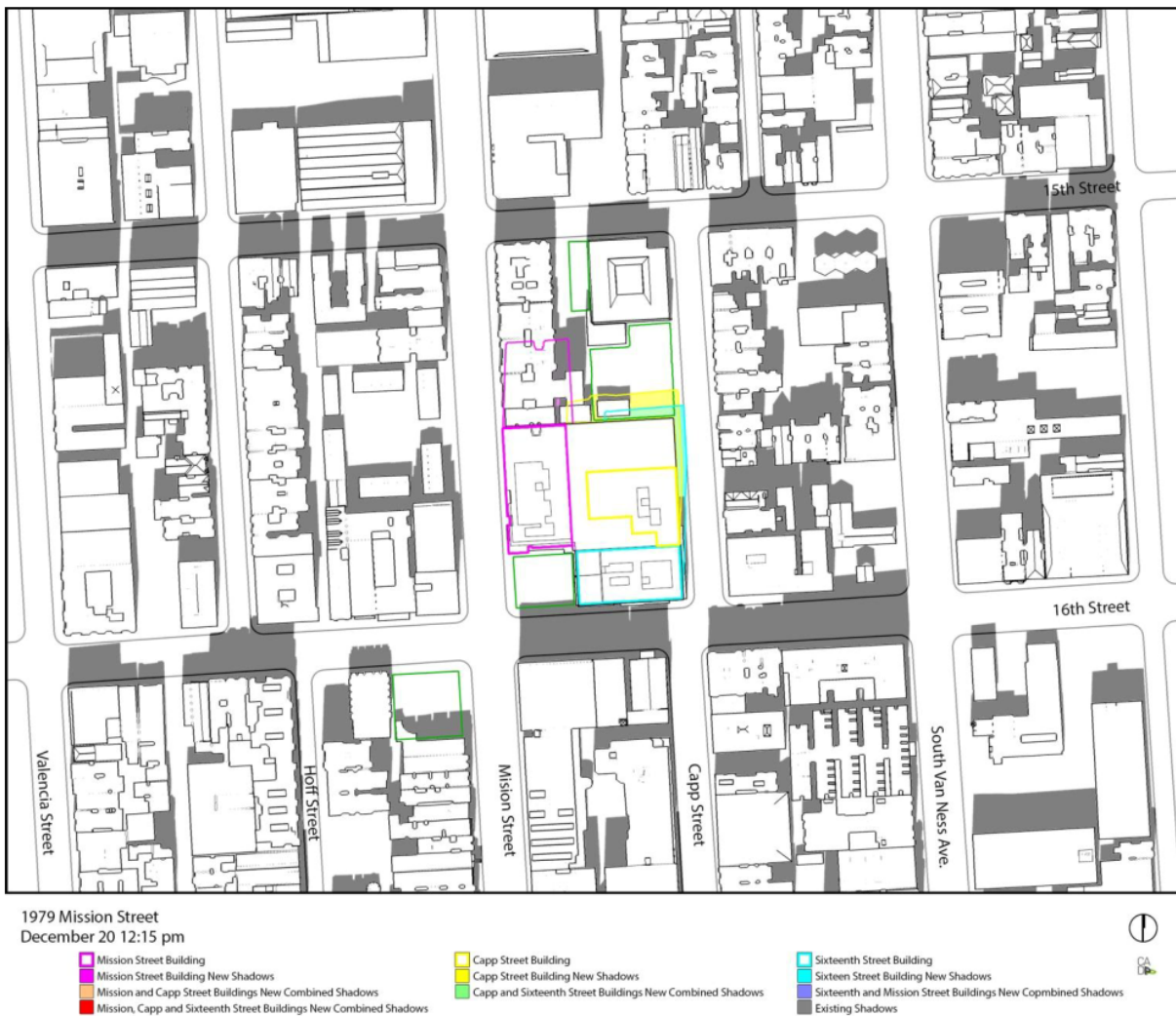
Season	Alternative F New Shadow Load (sfh)	Proposed Project New Shadow Load (sfh)	Total Shadow Load (sfh)	
			Alternative F	Proposed Project
Summer (June 21)	2,021	5,221	40,715	43,915
Autumn (September 20) Spring (March 22)	12,677	30,984	46,831	65,139
Winter (December 20)	26,562	61,001	53,681	88,120
Notes: sfh = square foot hours				

Table 24
Alternative F – Maximum New Shadow Area on Playground during the 10 a.m. to 1 p.m. hours, by Season

Season	Alternative F		Proposed Project	
	New Shadow Square Feet	Time of Maximum New Shadow	New Shadow Square Feet	Time of Maximum New Shadow
Summer (June 21)	440	12:45	1,063	12:45
Autumn (September 20) Spring (March 22)	1,246	1:00	3,584	1:00
Winter (December 20)	3,064	12:15	10,123	12:15

game area. During that time of the day, shadow from existing buildings would cover the western edge and the northwestern corner of the Playground. By 3:00 p.m. and through the end of the day, the Playground would be fully shaded and shadow would result from both Alternative F and existing buildings (see Exhibit K.1) As shown in Table 25, total shadow load cast by Alternative F between 10:00 a.m. and 1:00 p.m. in winter would be approximately 13,568 sfh.

The new shadow cast by Alternative F in the spring/autumn would cover the southernmost portion of the Playground. However, it would not shade the foursquare game area until approximately 5:00 p.m. During the autumn/spring, from sunrise until 8:00 a.m., existing buildings shade most of the Playground except for its southwestern corner. Alternative F would start to cast shadow on the Playground by 9:00 a.m., and would shade the edge of the Playground's southern boundary until 3:00 p.m. The largest shadow area cast by Alternative F in the autumn/spring would be 1,246 square feet and would occur at 1:00 p.m. As shown in Table 25, total shadow load cast by Alternative F between 10:00 a.m. and 1:00 p.m. in the autumn/spring would be approximately 5,820 sfh. The new shadow between sunrise and 1:00 p.m. would result from the Capp Street residential component.



Source: CADP

Figure 14. Alternative F – Maximum new shadow by square foot

Table 25

Alternative F – Shadow Load on Playground by Season, from 10:00 a.m. to 1:00 p.m.

Season	Alternative F New Shadow Load (sfh)	Proposed Project New Shadow Load (sfh)	Total Shadow Load (sfh)	
			Alternative F	Proposed Project
Summer (June 21)	1,108	2,655	2,171	3,718
Autumn (September 20) Spring (March 22)	3,865	10,191	5,820	12,146
Winter (December 20)	9,546	29,842	13,568	33,864
Notes: sfh = square foot hours				

During the summer, from sunrise until approximately 8:00 a.m., existing buildings shade the Playground, covering the basketball hoop, the kickball diamond, the foursquare game area, and part of the turf field. Between 9:00 a.m. and 3:00 p.m., the Playground would be fully sunny during the summer under Alternative F, except for the edge of its southern boundary that would be shaded. The largest area of shadow cast by Alternative F during the summer would be 440 square feet and would occur at 12:45 p.m. By 3:00 p.m. in the summer, existing buildings start gradually shading the Playground along its western boundary to fully shade it by 7:00 p.m. (see Exhibit K.1). As shown in Table 25, between 10:00 a.m. and 1:00 p.m. in the summer, the total shadow cast by Alternative F would be 2,171 sfh.

Shadow Impacts of Alternative F Compared to the Proposed Project

Under Alternative F, the new shadow load as a percentage of TAAS would be reduced by approximately 13 percent, when compared to the Proposed Project (see Table 21). As shown in Table 22, new shadow load in sfh on the Playground under Alternative F between 10:00 a.m. and 1:00 p.m. would be approximately 72 percent less than that on the Playground under the Proposed Project.

Similar to the Proposed Project, Alternative F would result in new shadow throughout the year. However, new shadow cast by Alternative F would be substantially smaller due to the setbacks from the north property line above the ground floor of the northeastern corner of the Capp Street residential component, as well as the reduction in height of the Mission Street component from 105 feet to 65 feet.

The shadow reduction under Alternative F in winter would primarily occur between 10:00 a.m. and 1:00 p.m. In winter, between 10:00 a.m. and 1:00 p.m., the Playground would be mostly shaded under the Proposed Project. Under Alternative F, the Playground would be mostly sunny during this timeframe, with the middle portion of the Playground—including the basketball hoop, kickball diamond, and turf field—being sunnier compared with the Proposed Project. The largest area of shadow would occur at 12:15 p.m. under either Alternative F or the Proposed Project. However, the largest shadow area would be approximately 3,064 square feet under Alternative F, compared with approximately 10,123 square feet under the Proposed Project. As shown in Table 25, between 10:00 a.m. and 1:00 p.m., total shadow load cast by Alternative F (13,568 sfh) would be reduced by approximately two-thirds, compared with the Proposed Project (33,864 sfh).

In autumn/spring, similar to the Proposed Project, Alternative F would result in new shadow throughout the day along the southern portion of the Playground; however, the extent of the shadow would be substantially less than that under the Proposed Project. Under Alternative F, the foursquare game area would not be shaded until approximately 4:00 p.m., compared to being shaded throughout the day after approximately 10:00 a.m. under the Proposed Project (see Exhibits J.1 and J.2). As shown in Table 24, the largest area of shadow in autumn/spring under Alternative F would be 1,246 square feet, and would occur at 1:00 p.m. The largest area of shadow during that time period under the Proposed Project would be 3,584 square feet.

As shown in Table 23, total shadow load would be less under Alternative F (46,831 sfh) than under the Proposed Project (65,139 sfh). As shown in Table 25, between 10:00 a.m. and 1:00 p.m., new shadow load under Alternative F (3,865 sfh) would be substantially less than that cast by the Proposed Project (10,191 sfh) during the same time period.

Similar to the Proposed Project, new shadow under Alternative F that would occur in the morning in the autumn/spring would result from the Capp Street residential component. Similar to the Proposed Project, Alternative F would result in minimal new shadow along the southern edge of the Playground during summer, and would start at approximately 10:00 a.m. and stay until approximately 4:00 p.m. As shown in Table 23, the new shadow load under Alternative F (40,715 sfh) would be less than that under the Proposed Project (43,915 sfh). Total shadow load that would occur between 10:00 a.m. and 1:00 p.m. under Alternative F (2,171 sfh) would be substantially less than the total shadow under the Proposed Project (3,718 sfh), as shown in Table 25.

Summary

The proposed residential components under Alternative F would result in a new shadow load of 8.82 percent of TAAS. The total shadow load on the Playground under Alternative F would be 30.90 percent of TAAS. Alternative F would result in 12.75 percent less new shadow as a percentage of TAAS when compared to the Proposed Project (see Table 21). New shadow load in sfh on the Playground under Alternative F between 10:00 a.m. and 1:00 p.m. would be approximately 72.35 percent less than that on the Playground under the Proposed Project. The shadow reduction under Alternative F would result from the 70-foot setback above the ground floor at the northeastern corner of the Capp Street residential component adjacent to the Playground, as well as the reduction in height of the Mission Street residential component from 105 feet to 65 feet.

Between 10:00 a.m. and 1:00 p.m. during winter, the Playground would be mostly sunny under Alternative F, compared to being mostly shaded under the Proposed Project. During autumn/spring, the Playground would be shaded along the southern boundary, but the foursquare game areas would not be shaded until after approximately 4:00 p.m. under Alternative F, compared to being shaded throughout the day after approximately 10:00 a.m. under the Proposed Project. Because of the 70-foot setback of the Capp Street component under Alternative F, shadow loads during this time period throughout the seasons would be smaller than those cast by the Proposed Project.

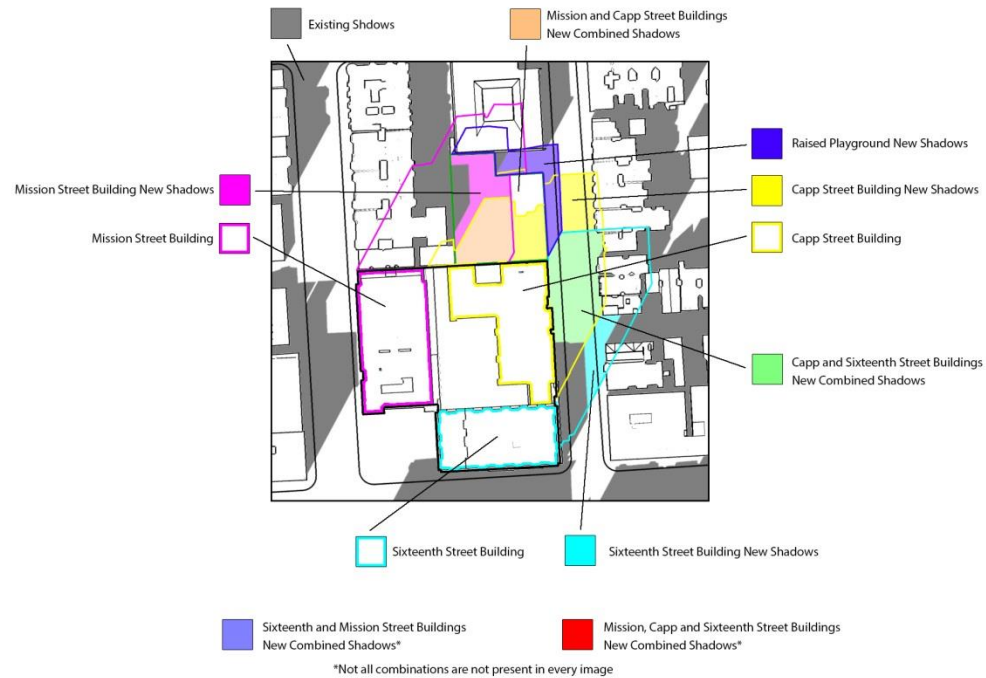
6 Exhibits

- Exhibit H.1 and H.2, Alternative C
- Exhibit I.1 and I.2, Alternative D
- Exhibit J.1 and J.2, Alternative E
- Exhibit K.1 and K.2, Alternative F

EXHIBIT H.1

1979 Mission Street Shadow Projection Graphics

ALTERNATIVE C
(Raised Playground)



1979 Mission Street Shadow Projections Key



1979 Mission Street
June 21 Sunrise +1 Hour

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
June 21 7:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Raised Playground Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copbined Shadows
- Existing Shadows





1979 Mission Street
June 21 8:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |

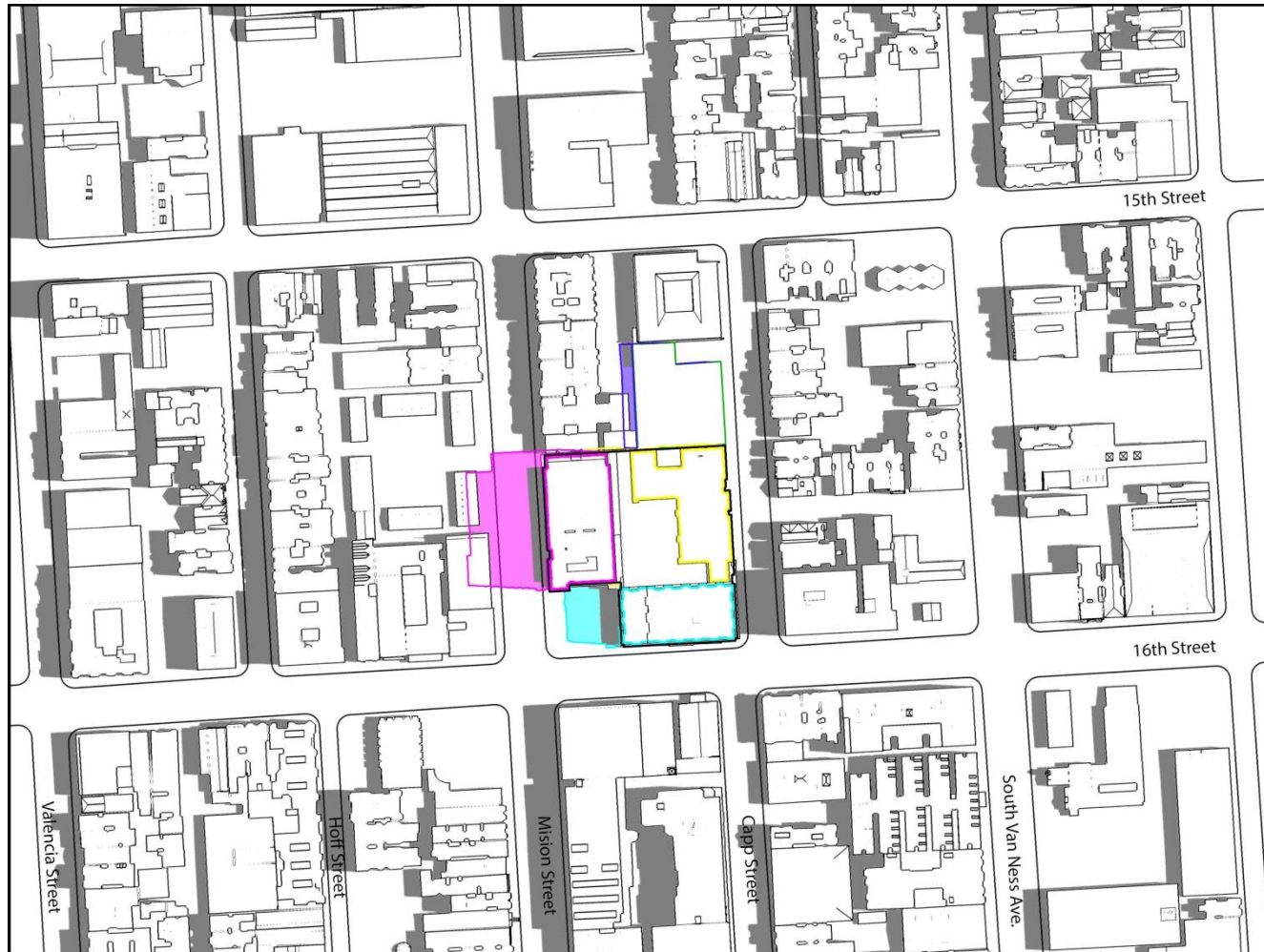




1979 Mission Street
June 21 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
June 21 9:45 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
June 21 10:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Raised Playground Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows

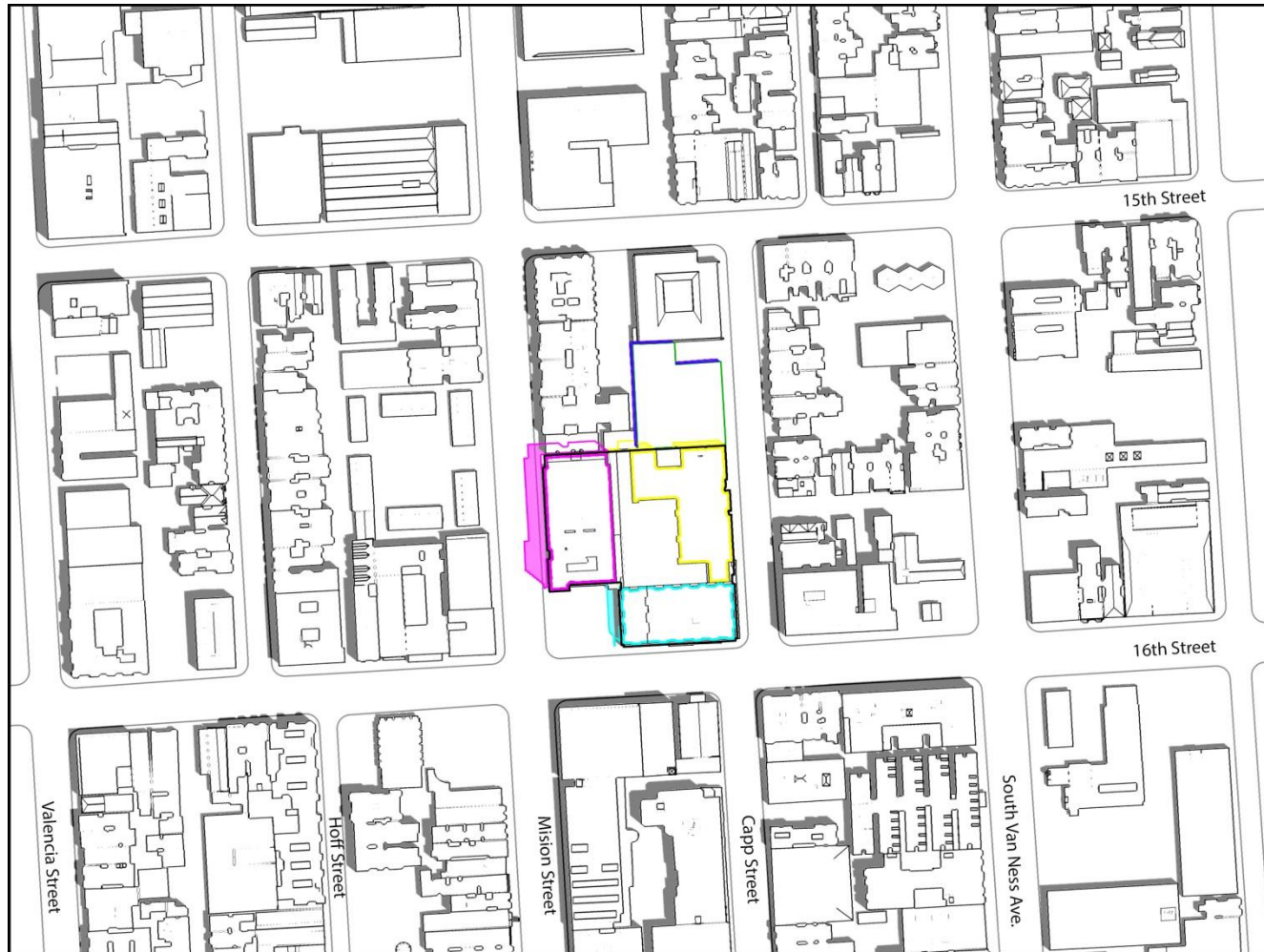




1979 Mission Street
June 21 11:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Raised Playground Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copbined Shadows
- Existing Shadows

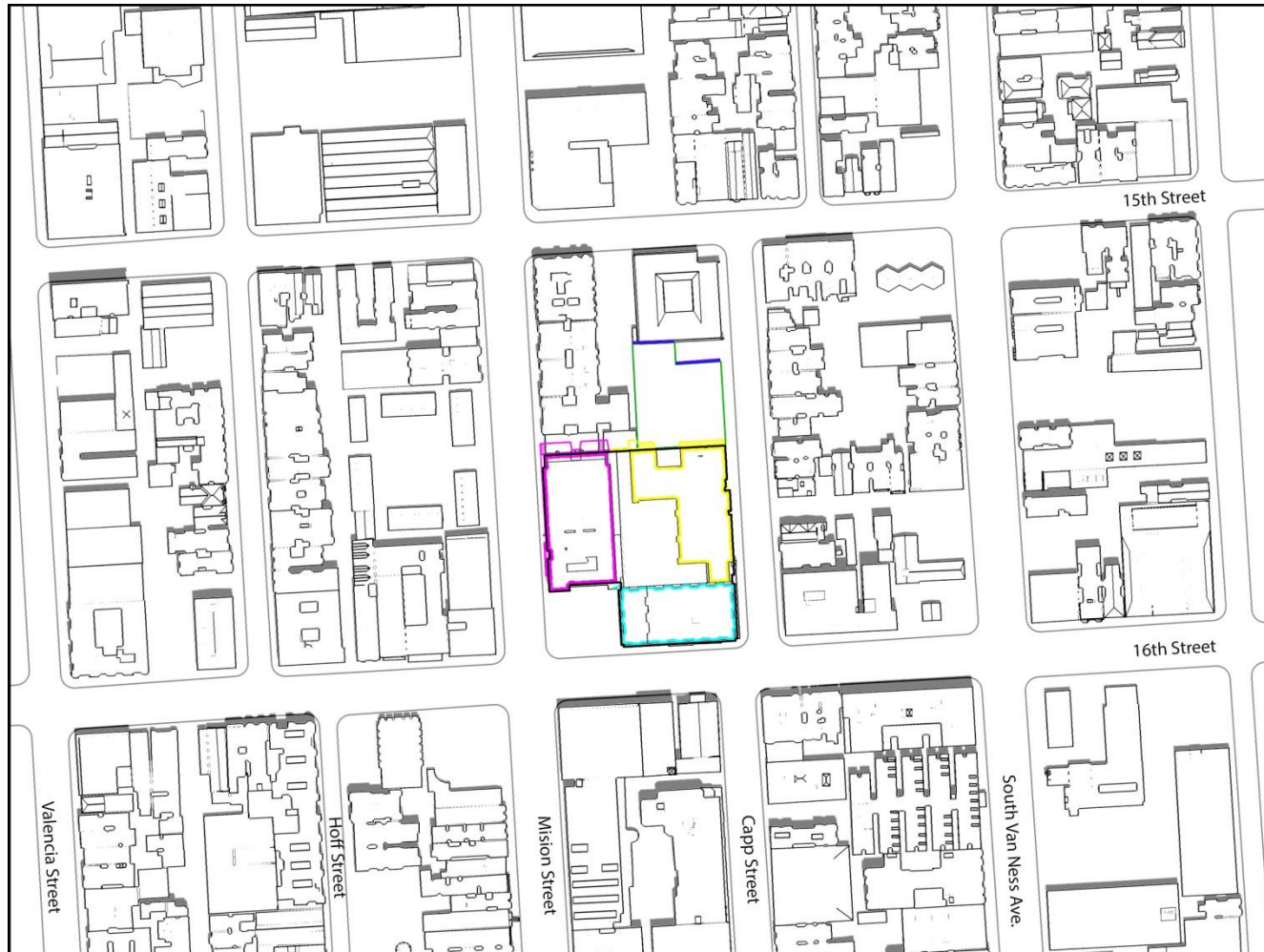




1979 Mission Street
June 21 12:00 noon

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | Raised Playground Shadows | Existing Shadows |

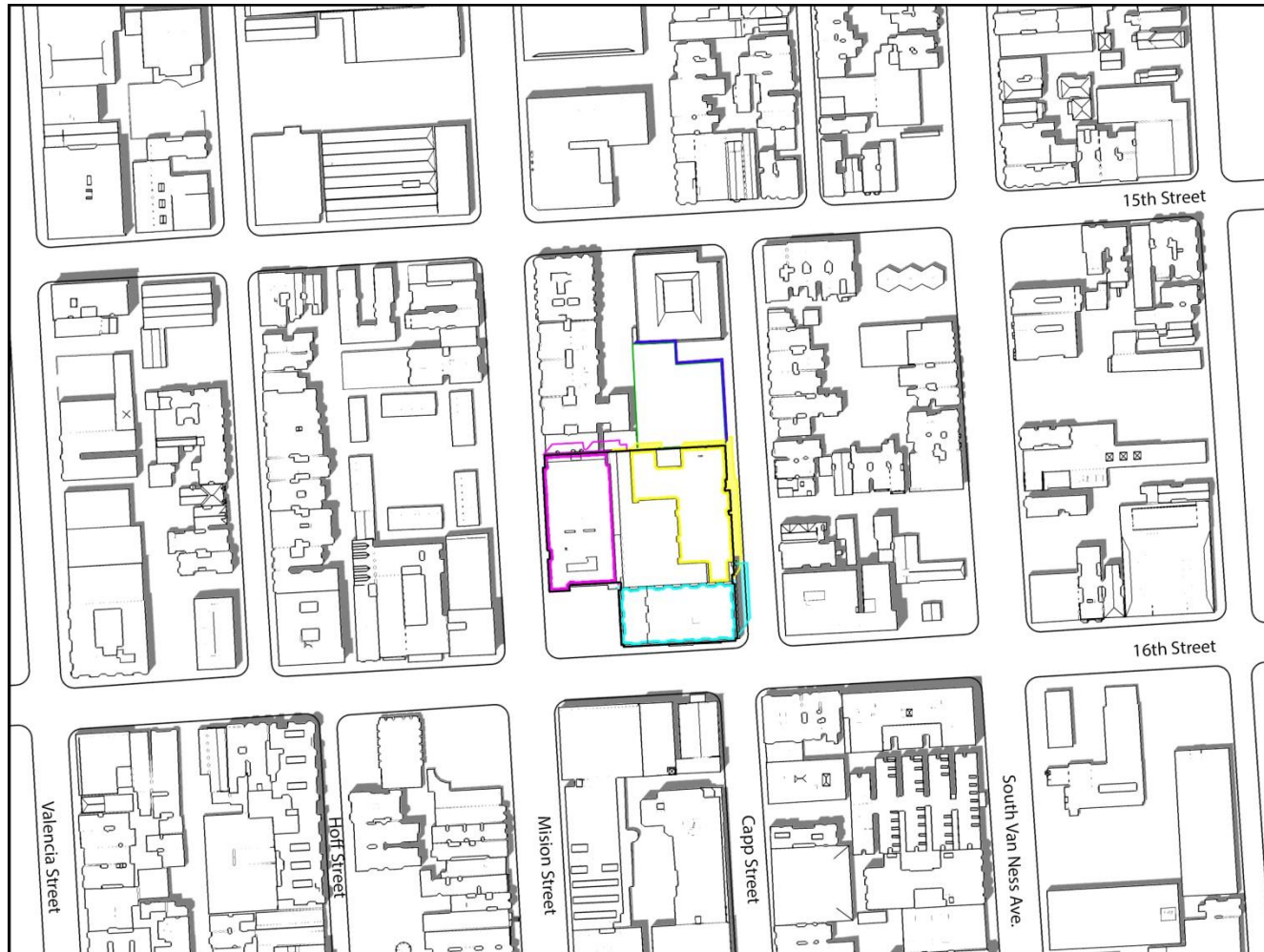




1979 Mission Street
June 21 1:00 pm

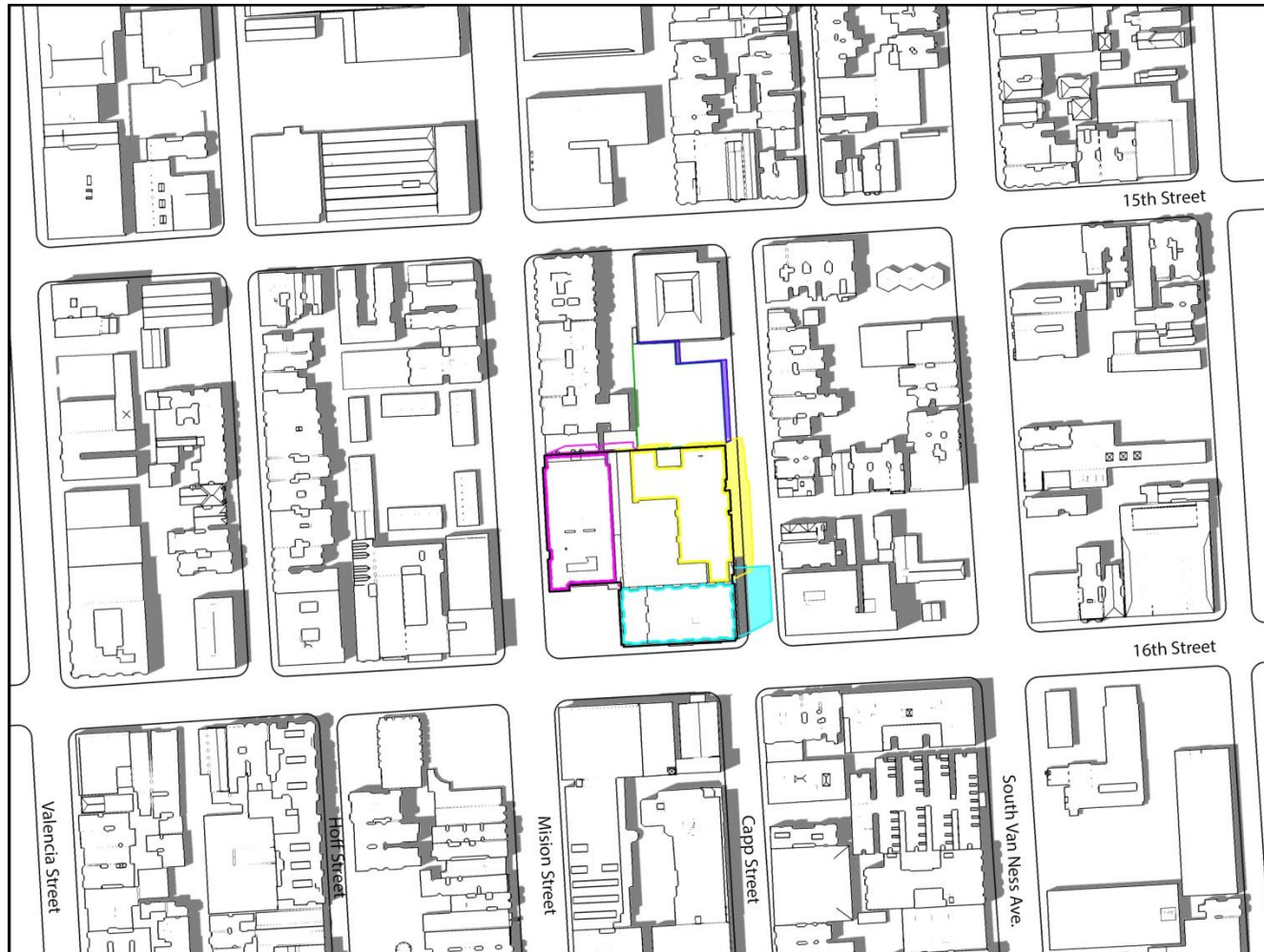
- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
June 21 2:00 pm

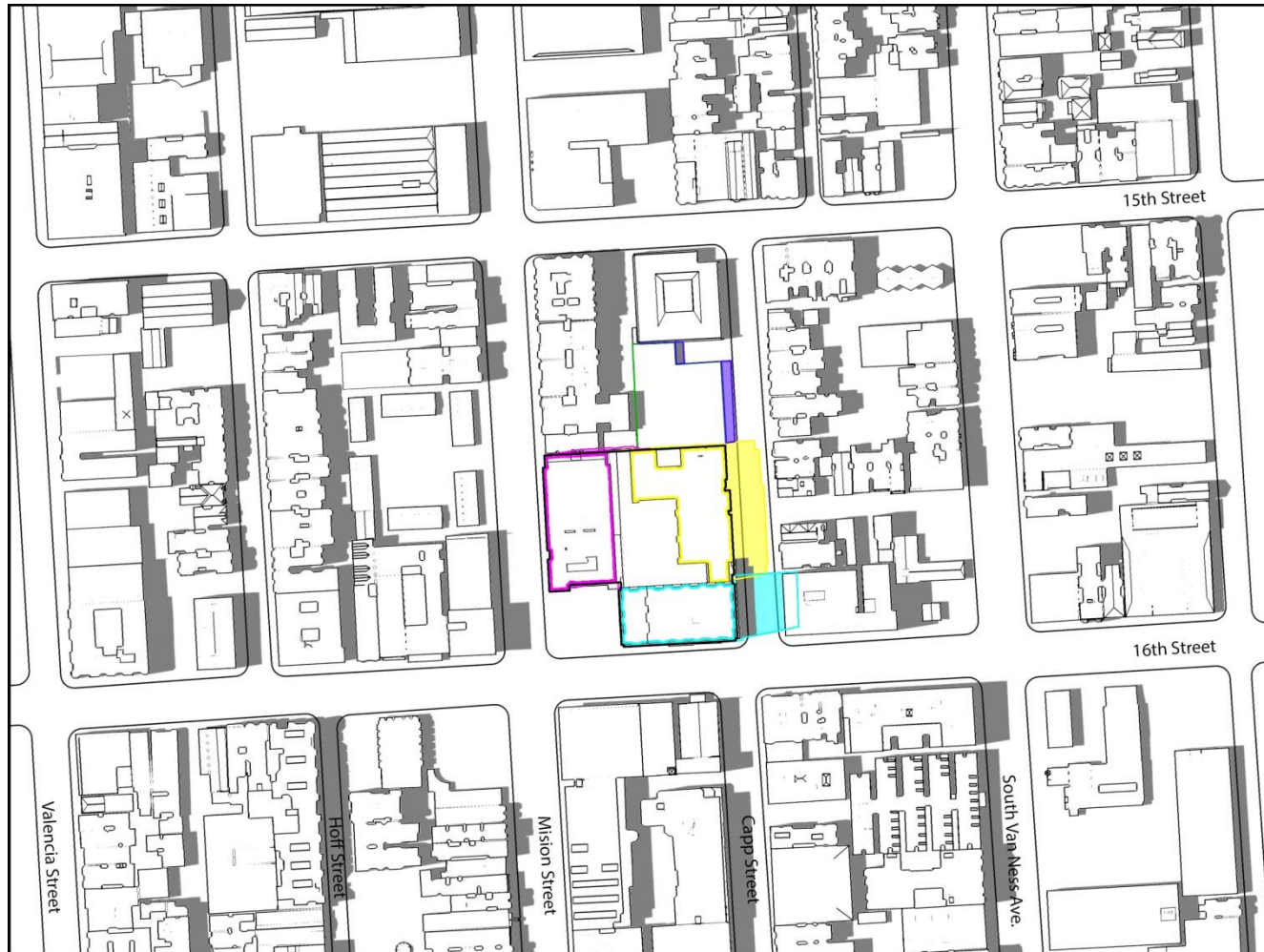
- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |



1979 Mission Street
June 21 3:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
June 21 4:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |

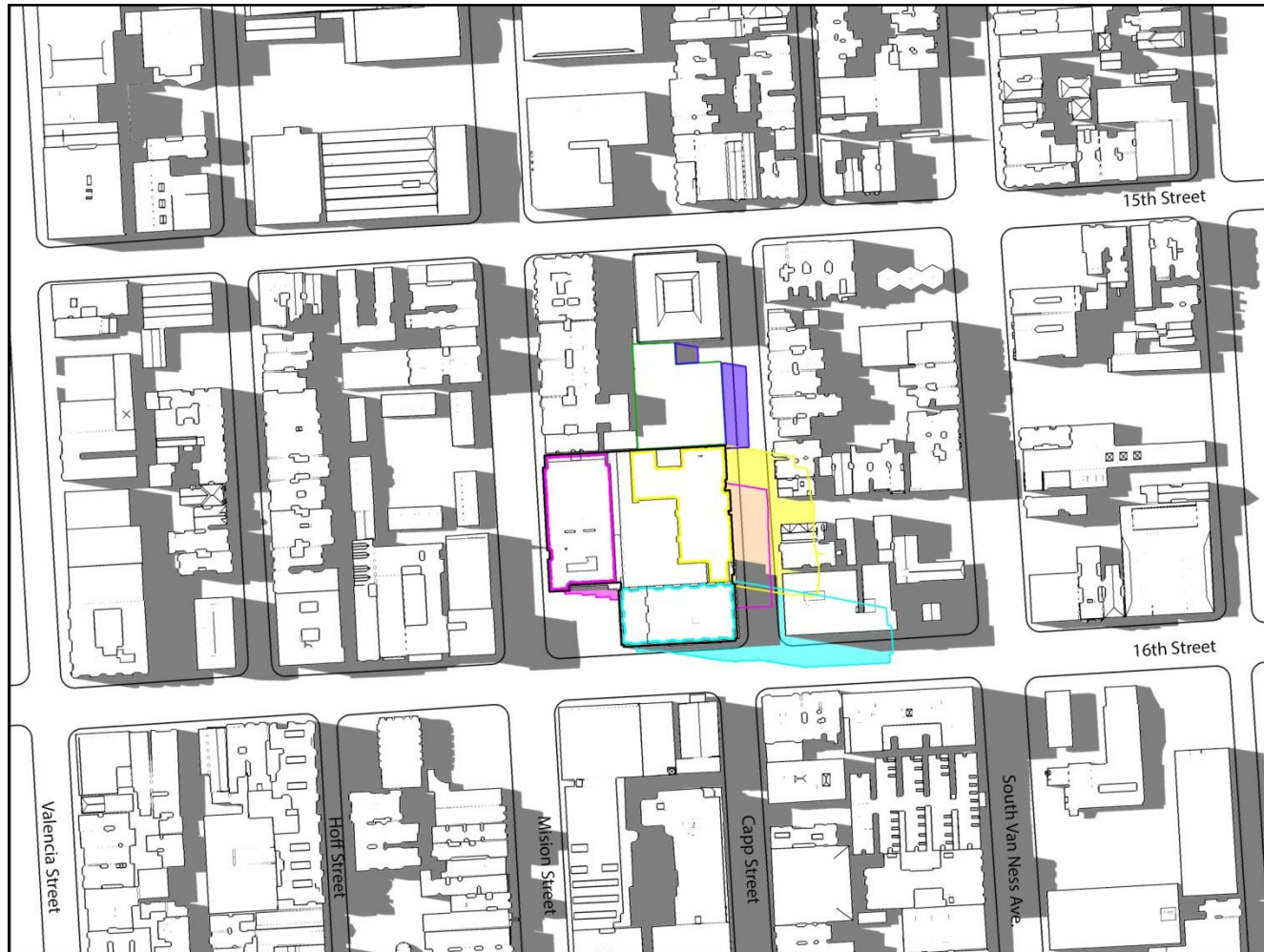




1979 Mission Street
June 21 5:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
June 21 6:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows

- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Raised Playground Shadows

- Sixteenth Street Building
- Sixteen Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copbined Shadows
- Existing Shadows

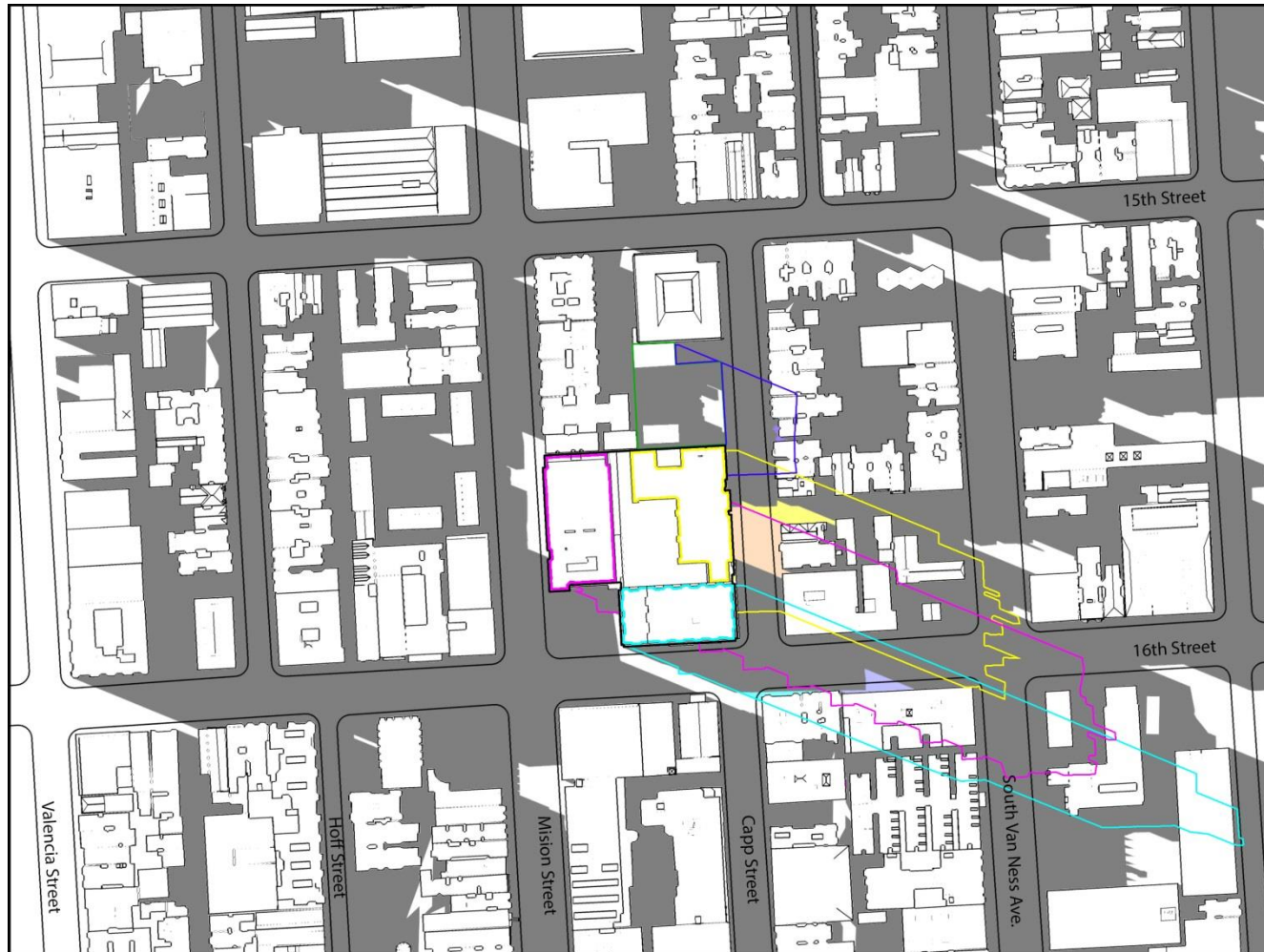




1979 Mission Street
June 21 7:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |

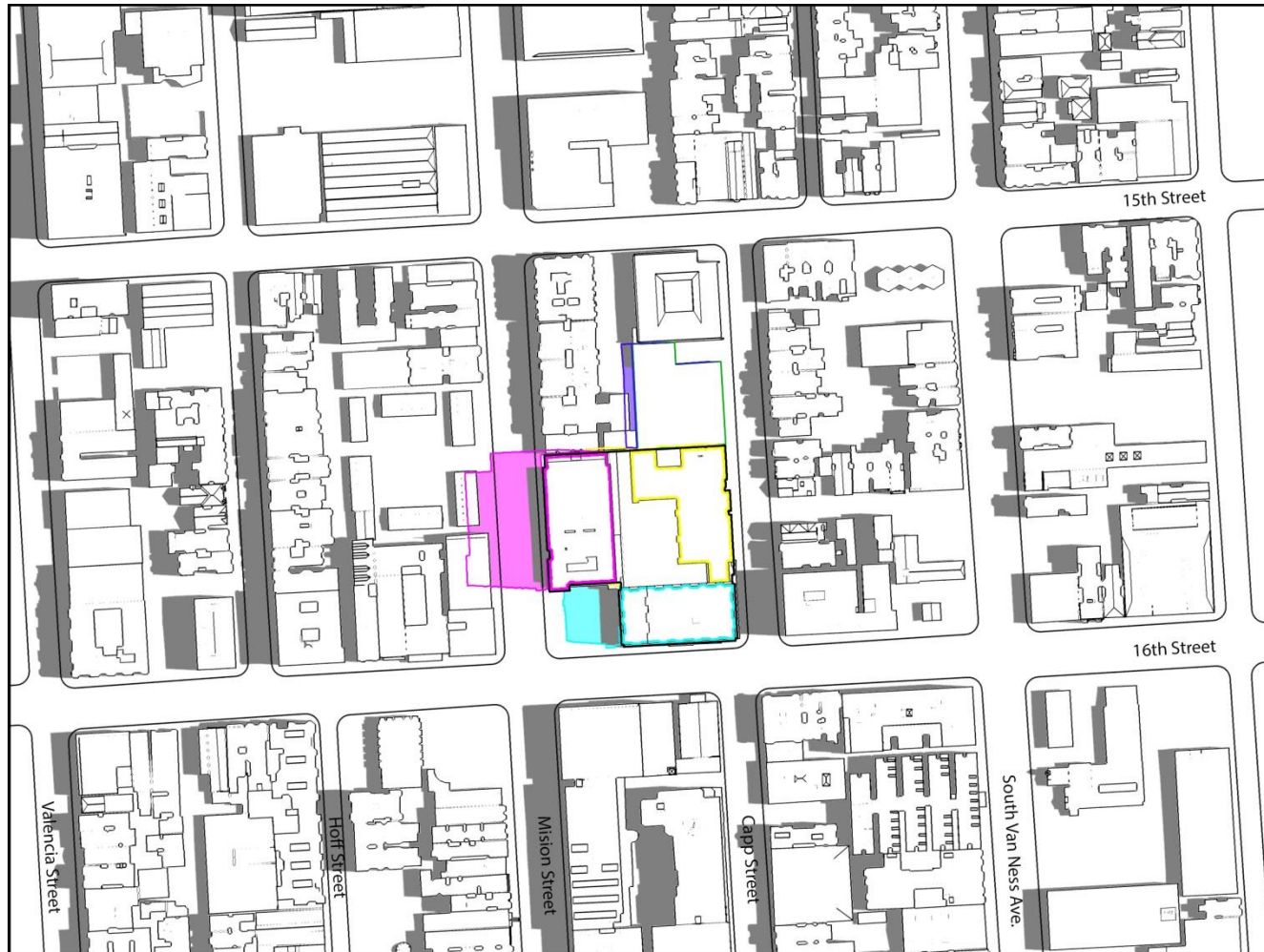




1979 Mission Street
June 21 Sunset -1 Hour

- | | | |
|--|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | Raised Playground Shadows | Existing Shadows |





1979 Mission Street
June 28 9:45 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Raised Playground Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 Sunrise +1 Hour

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Raised Playground Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 8:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
September 20 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |

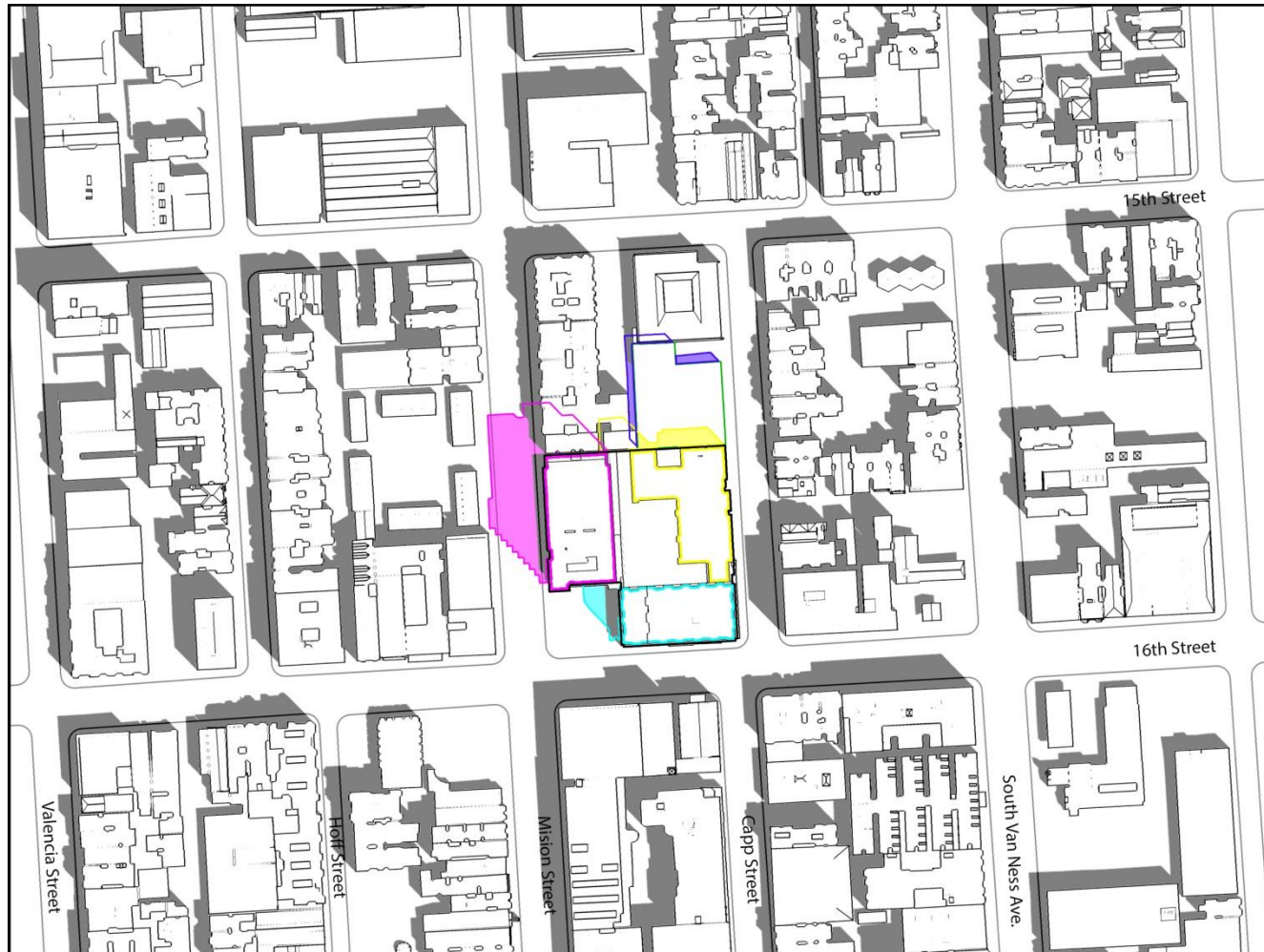




1979 Mission Street
September 20 10:00 am

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |

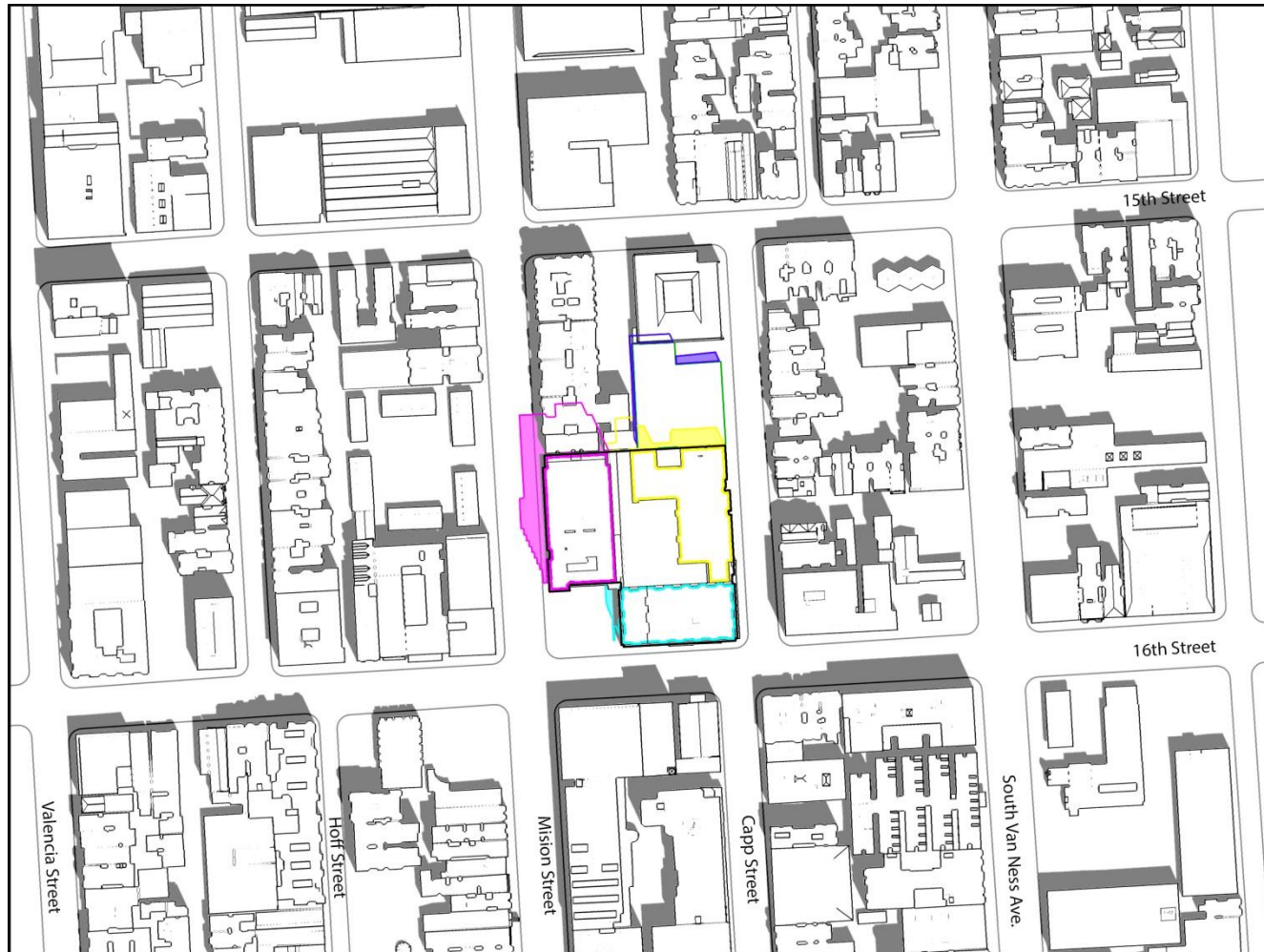




1979 Mission Street
September 20 11:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |

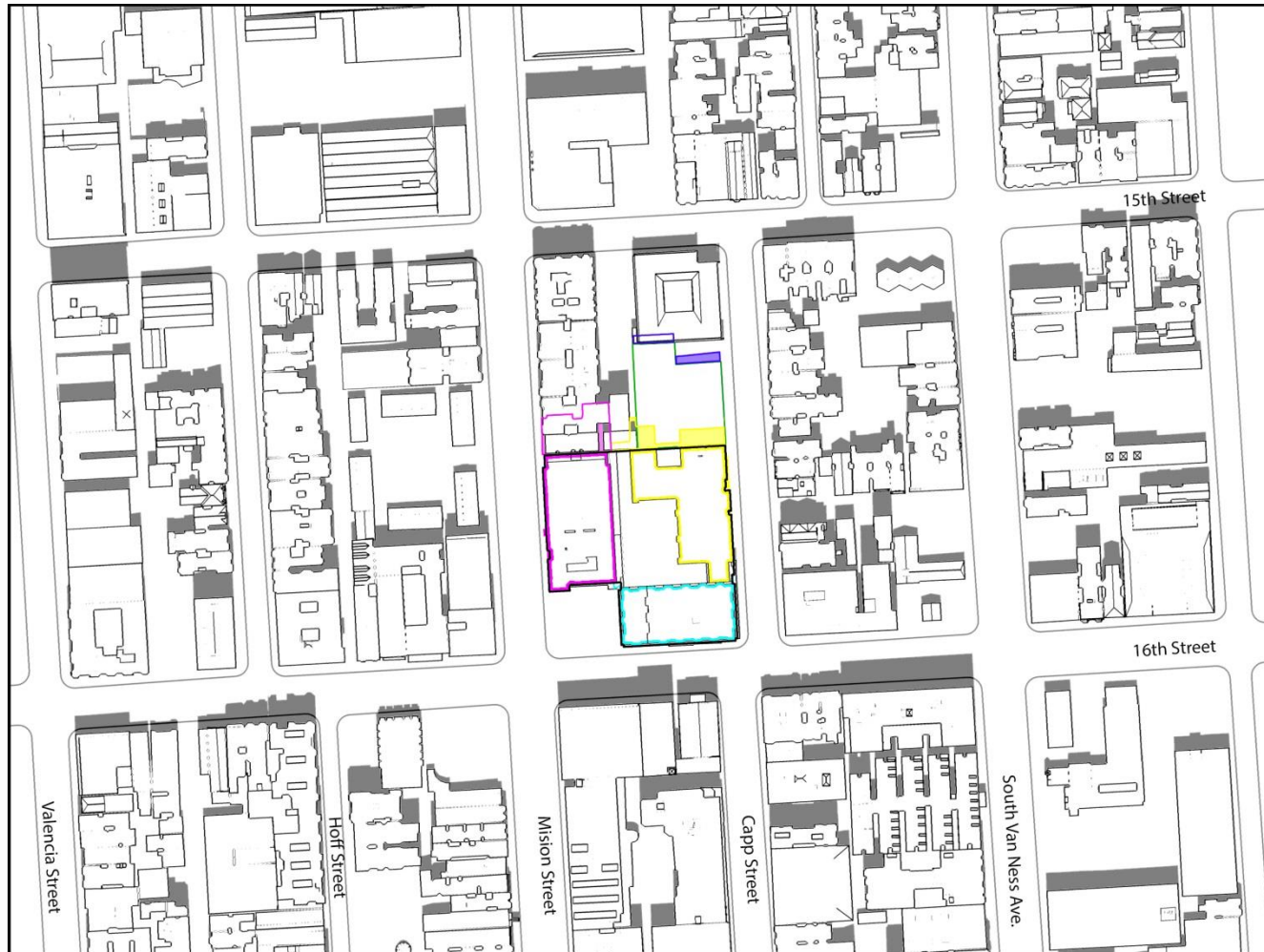




1979 Mission Street
September 20 12:00 noon

- | | | |
|---|--|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | Raised Playground Shadows | Existing Shadows |

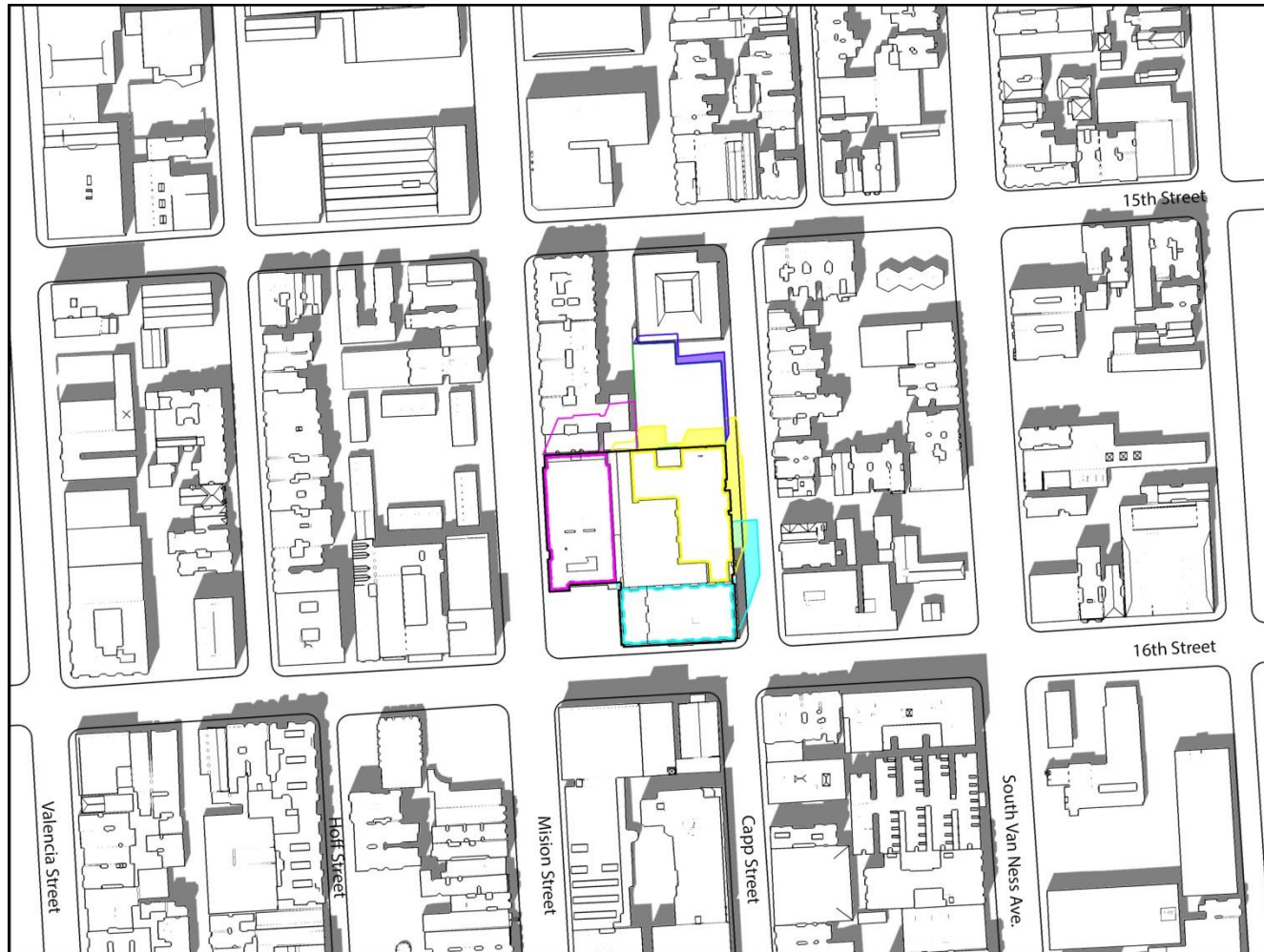




1979 Mission Street
September 20 1:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |

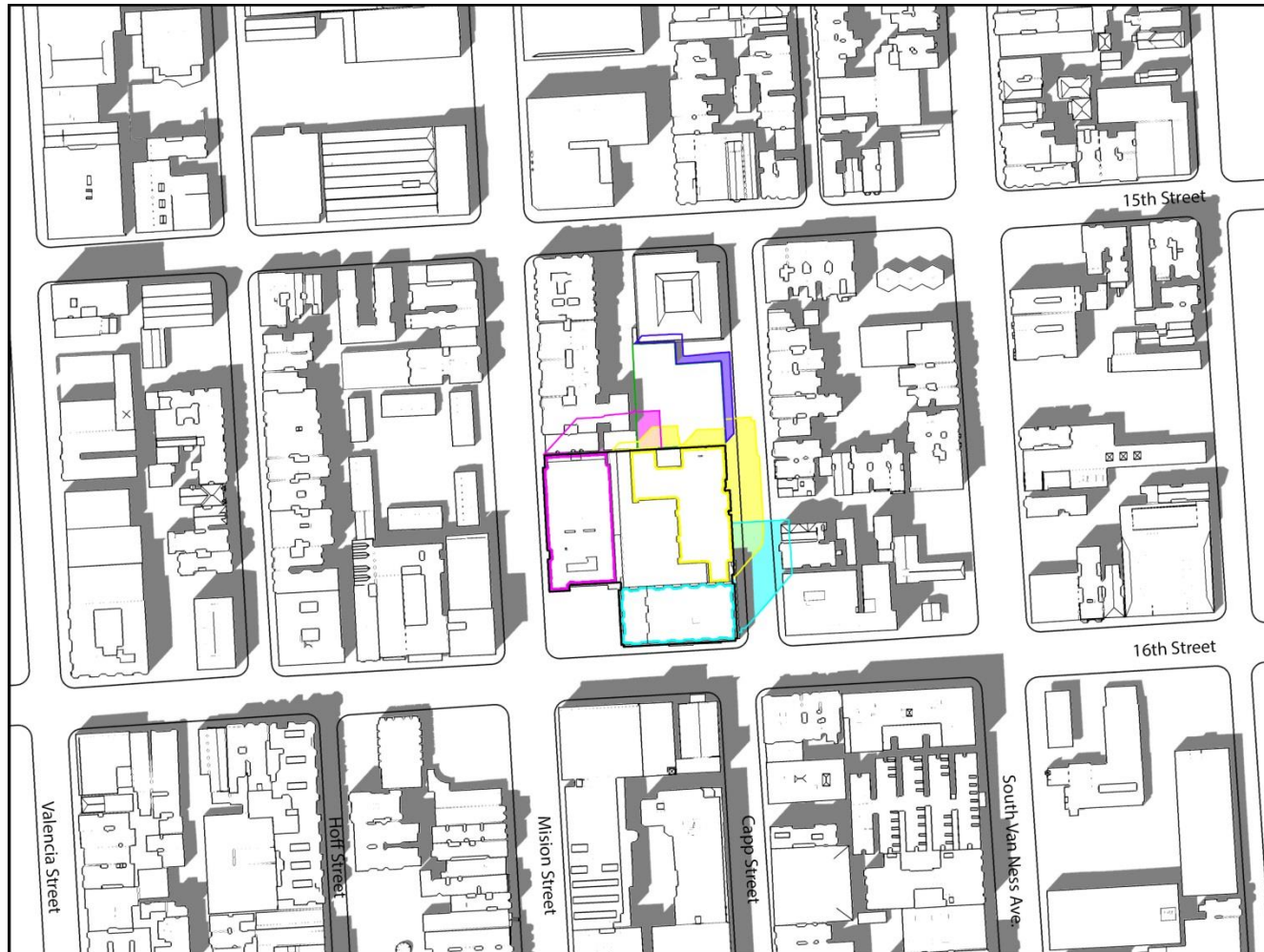




1979 Mission Street
September 20 2:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
September 20 3:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
September 20 4:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |

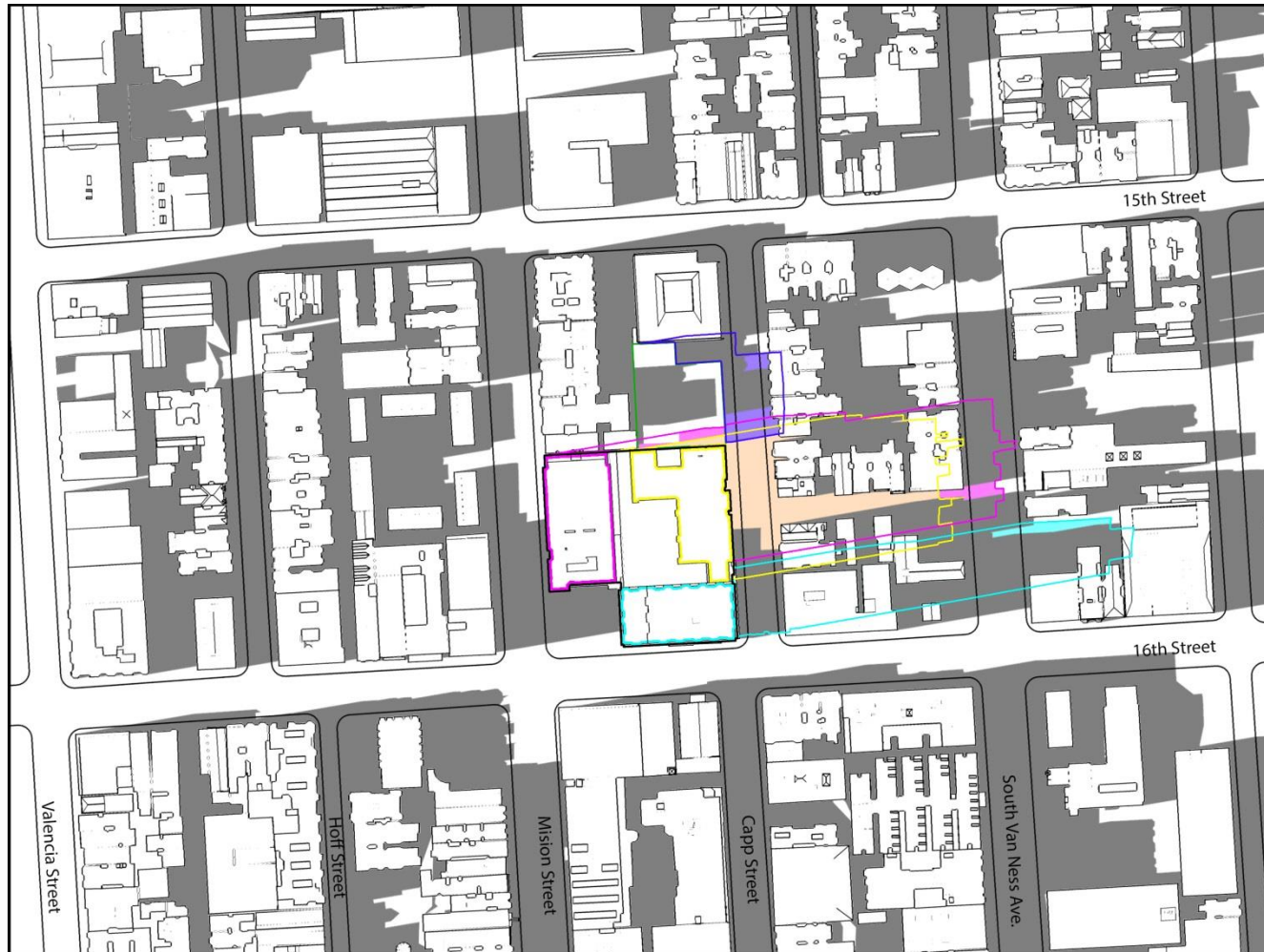




1979 Mission Street
September 20 5:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
September 20 6:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
September 20 Sunset -1 Hour

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | Raised Playground Shadows | Existing Shadows |





1979 Mission Street
November 29 8:30 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
December 20 Sunrise +1 Hour

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Raised Playground Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
December 20 10:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
December 20 11:00 am

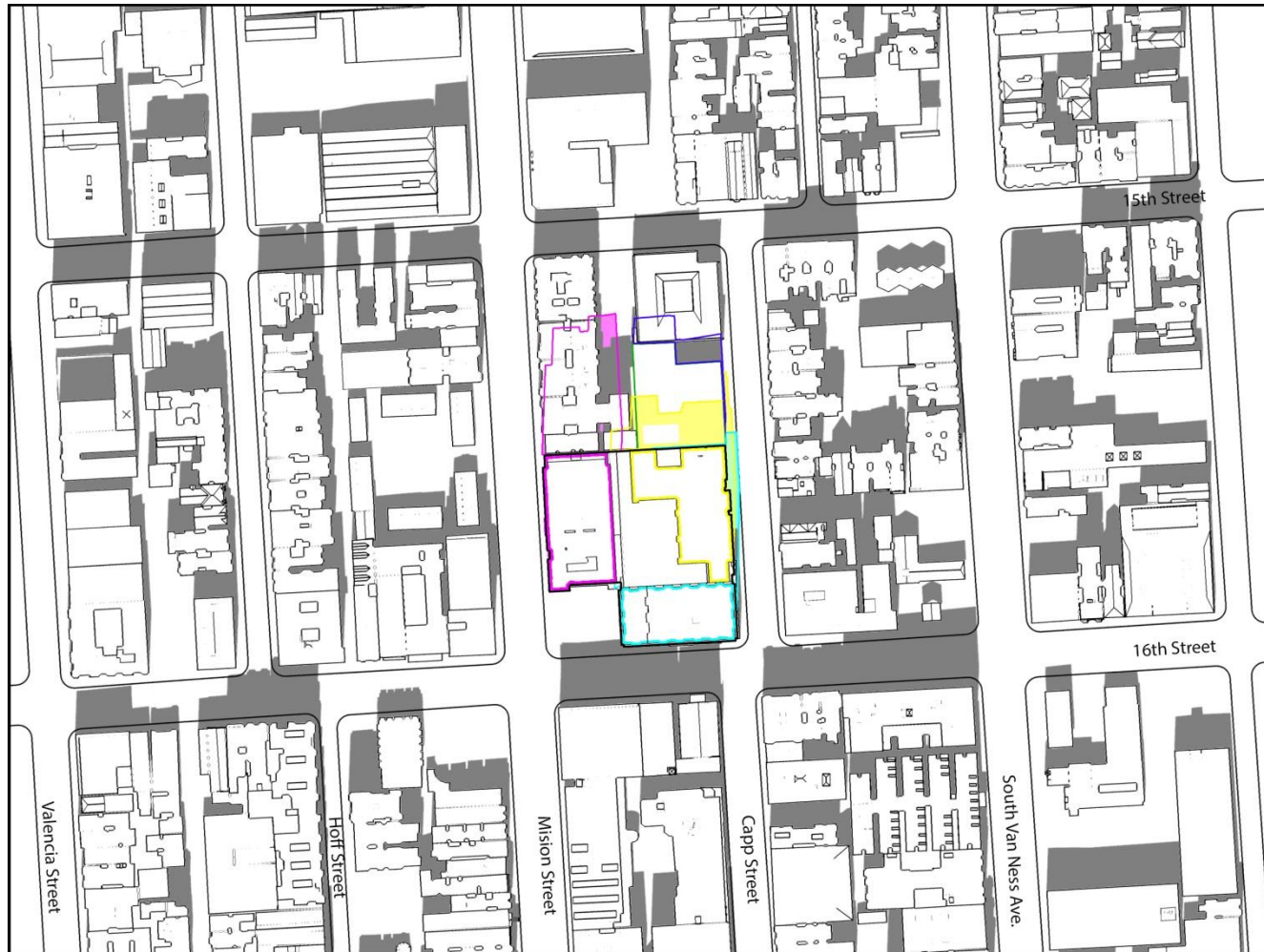
- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Raised Playground Shadows
- Sixteenth Street Building
- Sixteen Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copbined Shadows
- Existing Shadows





1979 Mission Street
December 20 12:00 noon

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |



1979 Mission Street
December 20 12:15 noon

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
December 20 1:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
December 20 2:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
December 20 2:30 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Raised Playground Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 3:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | ■ Raised Playground Shadows | ■ Existing Shadows |





1979 Mission Street
December 20 Sunset -1 Hour

- | | | |
|---|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | Raised Playground Shadows | Existing Shadows |



EXHIBIT H.2

Summary of Results - 1979 Mission Street - ALTERNATIVE C RAISED
PLAYGROUND - Upper Level Only - Marshall Elementary School
Playground

cadp annualized net new shadow	11,203,056.77 Sq ft hrs
Annual Available Sunlight (AAS), based on City's AAS Factor	53,471,430.85 Sq ft hrs
Annual Shadow Increase as a Percentage of AAS	20.951%

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
21-Jun	None	06.21 09:15:00	0:15:00		6.46	1.62	3.23	0.81
		06.21 09:30:00	0:15:00		4.47	1.12	90.47	22.62
		06.21 09:45:00	0:15:00		3.23	0.81	184.68	46.17
		06.21 10:00:00	0:15:00		1.49	0.37	260.73	65.18
		06.21 10:15:00	0:15:00		0.99	0.25	332.81	83.20
		06.21 10:30:00	0:15:00		0.75	0.19	385.51	96.38
		06.21 10:45:00	0:15:00		0.50	0.12	441.93	110.48
		06.21 11:00:00	0:15:00		0.50	0.12	480.70	120.18
		06.21 11:15:00	0:15:00		0.25	0.06	530.91	132.73
		06.21 11:30:00	0:15:00		0.25	0.06	557.01	139.25
		06.21 11:45:00	0:15:00		0.25	0.06	598.02	149.51
		06.21 12:00:00	0:15:00		0.25	0.06	608.71	152.18
		06.21 12:15:00	0:15:00		0.00	0.00	641.27	160.32
		06.21 12:30:00	0:15:00		0.00	0.00	638.04	159.51
		06.21 12:45:00	0:15:00		0.00	0.00	666.87	166.72
		06.21 13:00:00	0:15:00		0.00	0.00	650.47	162.62
		06.21 13:15:00	0:15:00		0.00	0.00	670.10	167.53
		06.21 13:30:00	0:15:00		0.00	0.00	651.96	162.99
		06.21 13:45:00	0:15:00		0.00	0.00	669.11	167.28
		06.21 14:00:00	0:15:00		0.25	0.06	636.55	159.14
		06.21 14:15:00	0:15:00		0.25	0.06	636.30	159.07
		06.21 14:30:00	0:15:00		23.36	5.84	589.32	147.33
		06.21 14:45:00	0:15:00		112.60	28.15	563.47	140.87
		06.21 15:00:00	0:15:00		207.05	51.76	498.85	124.71
		06.21 15:15:00	0:15:00		301.99	75.50	446.40	111.60
		06.21 15:30:00	0:15:00		404.40	101.10	361.15	90.29
		06.21 15:45:00	0:15:00		511.28	127.82	278.63	69.66
		06.21 16:00:00	0:15:00		621.88	155.47	178.96	44.74
		06.21 16:15:00	0:15:00	7:15:00	739.94	184.99	65.87	16.47
								3,329.50
28-Jun	14-Jun	06.28 09:15:00	0:15:00		6.21	1.55	2.49	0.62
		06.28 09:30:00	0:15:00		4.72	1.18	91.22	22.81
		06.28 09:45:00	0:15:00		3.48	0.87	186.17	46.54
		06.28 10:00:00	0:15:00		1.74	0.44	262.97	65.74
		06.28 10:15:00	0:15:00		0.99	0.25	335.30	83.83
		06.28 10:30:00	0:15:00		0.75	0.19	388.99	97.25
		06.28 10:45:00	0:15:00		0.50	0.12	445.66	111.41
		06.28 11:00:00	0:15:00		0.50	0.12	484.93	121.23
		06.28 11:15:00	0:15:00		0.25	0.06	534.89	133.72
		06.28 11:30:00	0:15:00		0.25	0.06	562.23	140.56
		06.28 11:45:00	0:15:00		0.25	0.06	603.24	150.81
		06.28 12:00:00	0:15:00		0.25	0.06	615.92	153.98
		06.28 12:15:00	0:15:00		0.00	0.00	649.72	162.43
		06.28 12:30:00	0:15:00		0.00	0.00	647.23	161.81
		06.28 12:45:00	0:15:00		0.00	0.00	674.08	168.52
		06.28 13:00:00	0:15:00		0.00	0.00	659.66	164.92
		06.28 13:15:00	0:15:00		0.00	0.00	676.81	169.20
		06.28 13:30:00	0:15:00		0.00	0.00	661.15	165.29
		06.28 13:45:00	0:15:00		0.00	0.00	679.55	169.89
		06.28 14:00:00	0:15:00		0.25	0.06	646.99	161.75
		06.28 14:15:00	0:15:00		0.25	0.06	647.48	161.87
		06.28 14:30:00	0:15:00		17.15	4.29	602.25	150.56
		06.28 14:45:00	0:15:00		105.64	26.41	577.39	144.35
		06.28 15:00:00	0:15:00		196.61	49.15	514.75	128.69
		06.28 15:15:00	0:15:00		292.80	73.20	464.55	116.14
		06.28 15:30:00	0:15:00		395.70	98.92	381.53	95.38
		06.28 15:45:00	0:15:00		501.83	125.46	301.00	75.25
		06.28 16:00:00	0:15:00		616.66	154.17	201.58	50.39
		06.28 16:15:00	0:15:00	7:15:00	731.49	182.87	91.47	22.87
								3,397.79
5-Jul	7-Jul	07.05 09:15:00	0:15:00		5.47	1.37	10.94	2.73

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day	
		07.05 09:30:00	0:15:00		4.97	1.24	107.38	26.84	
		07.05 09:45:00	0:15:00		2.73	0.68	209.28	52.32	
		07.05 10:00:00	0:15:00		1.74	0.44	286.33	71.58	
		07.05 10:15:00	0:15:00		0.75	0.19	359.66	89.91	
		07.05 10:30:00	0:15:00		0.75	0.19	413.35	103.34	
		07.05 10:45:00	0:15:00		0.50	0.12	471.26	117.81	
		07.05 11:00:00	0:15:00		0.50	0.12	512.27	128.07	
		07.05 11:15:00	0:15:00		0.25	0.06	559.25	139.81	
		07.05 11:30:00	0:15:00		0.25	0.06	588.58	147.14	
		07.05 11:45:00	0:15:00		0.25	0.06	629.34	157.33	
		07.05 12:00:00	0:15:00		0.25	0.06	640.27	160.07	
		07.05 12:15:00	0:15:00		0.00	0.00	674.33	168.58	
		07.05 12:30:00	0:15:00		0.00	0.00	673.58	168.40	
		07.05 12:45:00	0:15:00		0.00	0.00	701.17	175.29	
		07.05 13:00:00	0:15:00		0.00	0.00	685.76	171.44	
		07.05 13:15:00	0:15:00		0.00	0.00	704.90	176.22	
		07.05 13:30:00	0:15:00		0.00	0.00	690.48	172.62	
		07.05 13:45:00	0:15:00		0.00	0.00	708.38	177.09	
		07.05 14:00:00	0:15:00		0.25	0.06	679.79	169.95	
		07.05 14:15:00	0:15:00		0.25	0.06	682.03	170.51	
		07.05 14:30:00	0:15:00		12.93	3.23	638.04	159.51	
		07.05 14:45:00	0:15:00		99.42	24.86	615.67	153.92	
		07.05 15:00:00	0:15:00		195.86	48.97	553.28	138.32	
		07.05 15:15:00	0:15:00		293.05	73.26	505.56	126.39	
		07.05 15:30:00	0:15:00		393.96	98.49	423.78	105.95	
		07.05 15:45:00	0:15:00		500.84	125.21	345.99	86.50	
		07.05 16:00:00	0:15:00		613.18	153.30	250.79	62.70	
		07.05 16:15:00	0:15:00		732.74	183.18	145.16	36.29	
		07.05 16:30:00	0:15:00	7:30:00	857.26	214.32	13.67	3.42	3,616.64
		12-Jul	31-May	07.12 09:15:00	0:15:00		5.72	1.43	49.96
		07.12 09:30:00	0:15:00		4.97	1.24	154.60	38.65	
		07.12 09:45:00	0:15:00		1.99	0.50	255.51	63.88	
		07.12 10:00:00	0:15:00		0.99	0.25	332.81	83.20	
		07.12 10:15:00	0:15:00		0.75	0.19	405.64	101.41	
		07.12 10:30:00	0:15:00		0.50	0.12	457.84	114.46	
		07.12 10:45:00	0:15:00		0.50	0.12	516.74	129.19	
		07.12 11:00:00	0:15:00		0.25	0.06	555.52	138.88	
		07.12 11:15:00	0:15:00		0.25	0.06	603.24	150.81	
		07.12 11:30:00	0:15:00		0.25	0.06	632.07	158.02	
		07.12 11:45:00	0:15:00		0.25	0.06	673.33	168.33	
		07.12 12:00:00	0:15:00		0.25	0.06	684.52	171.13	
		07.12 12:15:00	0:15:00		0.00	0.00	719.56	179.89	
		07.12 12:30:00	0:15:00		0.00	0.00	719.07	179.77	
		07.12 12:45:00	0:15:00		0.00	0.00	745.16	186.29	
		07.12 13:00:00	0:15:00		0.00	0.00	730.75	182.69	
		07.12 13:15:00	0:15:00		0.00	0.00	753.86	188.47	
		07.12 13:30:00	0:15:00		0.00	0.00	737.71	184.43	
		07.12 13:45:00	0:15:00		0.00	0.00	758.34	189.58	
		07.12 14:00:00	0:15:00		0.25	0.06	731.74	182.94	
		07.12 14:15:00	0:15:00		0.25	0.06	736.22	184.05	
		07.12 14:30:00	0:15:00		11.19	2.80	694.21	173.55	
		07.12 14:45:00	0:15:00		98.68	24.67	675.57	168.89	
		07.12 15:00:00	0:15:00		193.62	48.41	615.17	153.79	
		07.12 15:15:00	0:15:00		292.80	73.20	568.44	142.11	
		07.12 15:30:00	0:15:00		397.19	99.30	489.15	122.29	
		07.12 15:45:00	0:15:00		503.57	125.89	414.84	103.71	
		07.12 16:00:00	0:15:00		617.90	154.48	325.11	81.28	
		07.12 16:15:00	0:15:00		742.68	185.67	225.94	56.48	
07.12 16:30:00	0:15:00		869.44	217.36	83.27	20.82			

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSfHr	NewSF	NewSFHr	New SFHR Total/day	
		07.19 09:00:00	0:15:00	7:45:00	6.96	1.74	5.47	1.37	4,012.84
19-Jul	24-May	07.19 09:15:00	0:15:00		5.47	1.37	128.25	32.06	
		07.19 09:30:00	0:15:00		2.98	0.75	235.13	58.78	
		07.19 09:45:00	0:15:00		1.74	0.44	332.57	83.14	
		07.19 10:00:00	0:15:00		0.99	0.25	405.64	101.41	
		07.19 10:15:00	0:15:00		0.75	0.19	475.48	118.87	
		07.19 10:30:00	0:15:00		0.50	0.12	526.19	131.55	
		07.19 10:45:00	0:15:00		0.50	0.12	579.88	144.97	
		07.19 11:00:00	0:15:00		0.25	0.06	616.91	154.23	
		07.19 11:15:00	0:15:00		0.25	0.06	667.37	166.84	
		07.19 11:30:00	0:15:00		0.25	0.06	694.71	173.68	
		07.19 11:45:00	0:15:00		0.25	0.06	735.22	183.81	
		07.19 12:00:00	0:15:00		0.25	0.06	748.89	187.22	
		07.19 12:15:00	0:15:00		0.00	0.00	780.71	195.18	
		07.19 12:30:00	0:15:00		0.00	0.00	780.96	195.24	
		07.19 12:45:00	0:15:00		0.00	0.00	808.79	202.20	
		07.19 13:00:00	0:15:00		0.00	0.00	796.86	199.22	
		07.19 13:15:00	0:15:00		0.00	0.00	817.00	204.25	
		07.19 13:30:00	0:15:00		0.00	0.00	805.81	201.45	
		07.19 13:45:00	0:15:00		0.00	0.00	825.45	206.36	
		07.19 14:00:00	0:15:00		0.25	0.06	804.32	201.08	
		07.19 14:15:00	0:15:00		0.25	0.06	808.30	202.07	
		07.19 14:30:00	0:15:00		15.41	3.85	772.01	193.00	
		07.19 14:45:00	0:15:00		105.14	26.29	753.37	188.34	
		07.19 15:00:00	0:15:00		202.07	50.52	694.71	173.68	
		07.19 15:15:00	0:15:00		301.74	75.44	653.94	163.49	
		07.19 15:30:00	0:15:00		406.14	101.53	574.66	143.66	
		07.19 15:45:00	0:15:00		519.97	129.99	505.56	126.39	
		07.19 16:00:00	0:15:00		636.55	159.14	425.03	106.26	
		07.19 16:15:00	0:15:00		758.83	189.71	333.06	83.27	
		07.19 16:30:00	0:15:00		892.56	223.14	195.86	48.97	
		07.19 16:45:00	0:15:00	7:45:00	1,035.23	258.81	36.04	9.01	4,579.66
26-Jul	17-May	07.26 09:00:00	0:15:00		5.22	1.31	94.95	23.74	
		07.26 09:15:00	0:15:00		4.72	1.18	231.90	57.98	
		07.26 09:30:00	0:15:00		1.99	0.50	338.03	84.51	
		07.26 09:45:00	0:15:00		0.99	0.25	432.73	108.18	
		07.26 10:00:00	0:15:00		0.75	0.19	501.33	125.33	
		07.26 10:15:00	0:15:00		0.50	0.12	567.95	141.99	
		07.26 10:30:00	0:15:00		0.50	0.12	616.41	154.10	
		07.26 10:45:00	0:15:00		0.25	0.06	667.12	166.78	
		07.26 11:00:00	0:15:00		0.25	0.06	702.16	175.54	
		07.26 11:15:00	0:15:00		0.25	0.06	748.40	187.10	
		07.26 11:30:00	0:15:00		0.25	0.06	776.23	194.06	
		07.26 11:45:00	0:15:00		0.25	0.06	819.73	204.93	
		07.26 12:00:00	0:15:00		0.00	0.00	831.41	207.85	
		07.26 12:15:00	0:15:00		0.00	0.00	865.71	216.43	
		07.26 12:30:00	0:15:00		0.00	0.00	865.46	216.37	
		07.26 12:45:00	0:15:00		0.00	0.00	893.55	223.39	
		07.26 13:00:00	0:15:00		0.00	0.00	881.62	220.41	
		07.26 13:15:00	0:15:00		0.00	0.00	901.75	225.44	
		07.26 13:30:00	0:15:00		0.00	0.00	893.30	223.33	
		07.26 13:45:00	0:15:00		0.00	0.00	915.92	228.98	
		07.26 14:00:00	0:15:00		0.25	0.06	895.04	223.76	
		07.26 14:15:00	0:15:00		0.25	0.06	905.98	226.49	
		07.26 14:30:00	0:15:00		22.62	5.66	869.19	217.30	
		07.26 14:45:00	0:15:00		115.83	28.96	858.01	214.50	
		07.26 15:00:00	0:15:00		213.26	53.32	807.30	201.83	
		07.26 15:15:00	0:15:00		315.17	78.79	767.78	191.95	
		07.26 15:30:00	0:15:00		425.03	106.26	686.51	171.63	

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		07.26 15:45:00	0:15:00		537.87	134.47	623.62	155.91
		07.26 16:00:00	0:15:00		661.15	165.29	552.29	138.07
		07.26 16:15:00	0:15:00		790.90	197.72	471.76	117.94
		07.26 16:30:00	0:15:00		929.59	232.40	341.26	85.32
		07.26 16:45:00	0:15:00		1,077.73	269.43	188.16	47.04
		07.26 17:00:00	0:15:00	8:15:00	1,238.29	309.57	8.20	2.05
								5,380.19
2-Aug	10-May	08.02 08:45:00	0:15:00		5.72	1.43	77.05	19.26
		08.02 09:00:00	0:15:00		5.47	1.37	238.86	59.72
		08.02 09:15:00	0:15:00		1.99	0.50	373.08	93.27
		08.02 09:30:00	0:15:00		1.24	0.31	472.25	118.06
		08.02 09:45:00	0:15:00		0.75	0.19	562.73	140.68
		08.02 10:00:00	0:15:00		0.50	0.12	625.36	156.34
		08.02 10:15:00	0:15:00		0.50	0.12	687.25	171.81
		08.02 10:30:00	0:15:00		0.50	0.12	726.27	181.57
		08.02 10:45:00	0:15:00		0.25	0.06	780.71	195.18
		08.02 11:00:00	0:15:00		0.25	0.06	813.27	203.32
		08.02 11:15:00	0:15:00		0.25	0.06	860.99	215.25
		08.02 11:30:00	0:15:00		0.25	0.06	885.10	221.28
		08.02 11:45:00	0:15:00		0.25	0.06	925.37	231.34
		08.02 12:00:00	0:15:00		0.00	0.00	937.05	234.26
		08.02 12:15:00	0:15:00		0.00	0.00	969.61	242.40
		08.02 12:30:00	0:15:00		0.00	0.00	968.37	242.09
		08.02 12:45:00	0:15:00		0.00	0.00	994.46	248.62
		08.02 13:00:00	0:15:00		0.00	0.00	984.27	246.07
		08.02 13:15:00	0:15:00		0.00	0.00	1,004.65	251.16
		08.02 13:30:00	0:15:00		0.00	0.00	1,001.67	250.42
		08.02 13:45:00	0:15:00		0.00	0.00	1,025.04	256.26
		08.02 14:00:00	0:15:00		0.25	0.06	1,009.13	252.28
		08.02 14:15:00	0:15:00		0.25	0.06	1,021.80	255.45
		08.02 14:30:00	0:15:00		34.30	8.58	989.24	247.31
		08.02 14:45:00	0:15:00		131.49	32.87	989.74	247.44
		08.02 15:00:00	0:15:00		232.90	58.22	952.21	238.05
		08.02 15:15:00	0:15:00		339.77	84.94	921.89	230.47
		08.02 15:30:00	0:15:00		452.62	113.15	844.09	211.02
		08.02 15:45:00	0:15:00		574.41	143.60	784.44	196.11
		08.02 16:00:00	0:15:00		698.68	174.67	707.88	176.97
		08.02 16:15:00	0:15:00		836.13	209.03	636.79	159.20
		08.02 16:30:00	0:15:00		979.05	244.76	517.99	129.50
		08.02 16:45:00	0:15:00		1,137.13	284.28	374.32	93.58
		08.02 17:00:00	0:15:00	8:30:00	1,310.87	327.72	171.25	42.81
								6,458.54
9-Aug	3-May	08.09 08:30:00	0:15:00		5.97	1.49	67.11	16.78
		08.09 08:45:00	0:15:00		5.22	1.31	258.25	64.56
		08.09 09:00:00	0:15:00		2.24	0.56	427.02	106.75
		08.09 09:15:00	0:15:00		1.24	0.31	548.81	137.20
		08.09 09:30:00	0:15:00		0.99	0.25	640.27	160.07
		08.09 09:45:00	0:15:00		0.75	0.19	717.08	179.27
		08.09 10:00:00	0:15:00		0.50	0.12	773.50	193.38
		08.09 10:15:00	0:15:00		0.50	0.12	833.40	208.35
		08.09 10:30:00	0:15:00		0.25	0.06	873.42	218.35
		08.09 10:45:00	0:15:00		0.25	0.06	924.37	231.09
		08.09 11:00:00	0:15:00		0.25	0.06	948.73	237.18
		08.09 11:15:00	0:15:00		0.25	0.06	993.97	248.49
		08.09 11:30:00	0:15:00		0.25	0.06	1,012.36	253.09
		08.09 11:45:00	0:15:00		0.00	0.00	1,053.37	263.34
		08.09 12:00:00	0:15:00		0.00	0.00	1,060.33	265.08
		08.09 12:15:00	0:15:00		0.00	0.00	1,093.14	273.29
		08.09 12:30:00	0:15:00		0.00	0.00	1,091.40	272.85
		08.09 12:45:00	0:15:00		0.00	0.00	1,112.77	278.19
		08.09 13:00:00	0:15:00		0.00	0.00	1,103.08	275.77

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		08.09 13:15:00	0:15:00		0.00	0.00	1,128.93	282.23
		08.09 13:30:00	0:15:00		0.00	0.00	1,126.20	281.55
		08.09 13:45:00	0:15:00		0.00	0.00	1,154.78	288.70
		08.09 14:00:00	0:15:00		0.25	0.06	1,145.34	286.33
		08.09 14:15:00	0:15:00		0.25	0.06	1,163.23	290.81
		08.09 14:30:00	0:15:00		52.45	13.11	1,130.42	282.61
		08.09 14:45:00	0:15:00		154.35	38.59	1,153.29	288.32
		08.09 15:00:00	0:15:00		260.73	65.18	1,132.66	283.17
		08.09 15:15:00	0:15:00		370.35	92.59	1,118.74	279.69
		08.09 15:30:00	0:15:00		489.90	122.48	1,046.41	261.60
		08.09 15:45:00	0:15:00		617.16	154.29	998.69	249.67
		08.09 16:00:00	0:15:00		748.15	187.04	911.69	227.92
		08.09 16:15:00	0:15:00		891.56	222.89	838.87	209.72
		08.09 16:30:00	0:15:00		1,048.15	262.04	728.01	182.00
		08.09 16:45:00	0:15:00		1,214.68	303.67	599.26	149.82
		08.09 17:00:00	0:15:00		1,398.86	349.72	406.88	101.72
		08.09 17:15:00	0:15:00		1,604.91	401.23	168.52	42.13
16-Aug	26-May	08.16 08:15:00	0:15:00		6.21	1.55	79.79	19.95
		08.16 08:30:00	0:15:00		4.97	1.24	286.09	71.52
		08.16 08:45:00	0:15:00		2.49	0.62	478.22	119.55
		08.16 09:00:00	0:15:00		1.24	0.31	638.78	159.70
		08.16 09:15:00	0:15:00		0.99	0.25	758.59	189.65
		08.16 09:30:00	0:15:00		0.75	0.19	835.89	208.97
		08.16 09:45:00	0:15:00		0.50	0.12	904.49	226.12
		08.16 10:00:00	0:15:00		0.50	0.12	957.18	239.30
		08.16 10:15:00	0:15:00		0.25	0.06	1,018.82	254.71
		08.16 10:30:00	0:15:00		0.25	0.06	1,052.13	263.03
		08.16 10:45:00	0:15:00		0.25	0.06	1,090.41	272.60
		08.16 11:00:00	0:15:00		0.25	0.06	1,110.04	277.51
		08.16 11:15:00	0:15:00		0.25	0.06	1,145.83	286.46
		08.16 11:30:00	0:15:00		0.25	0.06	1,162.73	290.68
		08.16 11:45:00	0:15:00		0.00	0.00	1,198.03	299.51
		08.16 12:00:00	0:15:00		0.00	0.00	1,205.98	301.50
		08.16 12:15:00	0:15:00		0.00	0.00	1,233.82	308.46
		08.16 12:30:00	0:15:00		0.00	0.00	1,231.58	307.90
		08.16 12:45:00	0:15:00		0.00	0.00	1,251.96	312.99
		08.16 13:00:00	0:15:00		0.00	0.00	1,243.02	310.75
		08.16 13:15:00	0:15:00		0.00	0.00	1,267.13	316.78
		08.16 13:30:00	0:15:00		0.00	0.00	1,273.59	318.40
		08.16 13:45:00	0:15:00		0.00	0.00	1,306.65	326.66
		08.16 14:00:00	0:15:00		0.25	0.06	1,303.66	325.92
		08.16 14:15:00	0:15:00		0.50	0.12	1,322.06	330.51
		08.16 14:30:00	0:15:00		77.30	19.33	1,296.21	324.05
		08.16 14:45:00	0:15:00		181.20	45.30	1,353.37	338.34
		08.16 15:00:00	0:15:00		290.31	72.58	1,351.88	337.97
		08.16 15:15:00	0:15:00		410.86	102.72	1,370.03	342.51
		08.16 15:30:00	0:15:00		535.88	133.97	1,325.29	331.32
		08.16 15:45:00	0:15:00		670.85	167.71	1,290.24	322.56
		08.16 16:00:00	0:15:00		809.54	202.39	1,191.81	297.95
		08.16 16:15:00	0:15:00		964.64	241.16	1,098.11	274.53
		08.16 16:30:00	0:15:00		1,130.42	282.61	984.27	246.07
		08.16 16:45:00	0:15:00		1,315.84	328.96	871.43	217.86
		08.16 17:00:00	0:15:00		1,516.67	379.17	694.46	173.62
		08.16 17:15:00	0:15:00		1,741.86	435.47	468.77	117.19
		08.16 17:30:00	0:15:00	9:30:00	2,029.69	507.42	150.38	37.59
23-Aug	19-Apr	08.23 08:00:00	0:15:00		64.62	16.16	101.41	25.35
		08.23 08:15:00	0:15:00		5.22	1.31	340.02	85.01
		08.23 08:30:00	0:15:00		2.49	0.62	550.05	137.51
		08.23 08:45:00	0:15:00		1.24	0.31	733.98	183.50

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		08.23 09:00:00	0:15:00		0.99	0.25	888.33	222.08
		08.23 09:15:00	0:15:00		0.75	0.19	1,006.15	251.54
		08.23 09:30:00	0:15:00		0.50	0.12	1,068.04	267.01
		08.23 09:45:00	0:15:00		0.50	0.12	1,133.90	283.48
		08.23 10:00:00	0:15:00		0.25	0.06	1,182.12	295.53
		08.23 10:15:00	0:15:00		0.25	0.06	1,232.08	308.02
		08.23 10:30:00	0:15:00		0.25	0.06	1,252.96	313.24
		08.23 10:45:00	0:15:00		0.25	0.06	1,280.05	320.01
		08.23 11:00:00	0:15:00		0.25	0.06	1,290.49	322.62
		08.23 11:15:00	0:15:00		0.25	0.06	1,320.32	330.08
		08.23 11:30:00	0:15:00		0.00	0.00	1,333.99	333.50
		08.23 11:45:00	0:15:00		0.00	0.00	1,365.55	341.39
		08.23 12:00:00	0:15:00		0.00	0.00	1,369.03	342.26
		08.23 12:15:00	0:15:00		0.00	0.00	1,392.89	348.22
		08.23 12:30:00	0:15:00		0.00	0.00	1,388.42	347.11
		08.23 12:45:00	0:15:00		0.00	0.00	1,408.80	352.20
		08.23 13:00:00	0:15:00		0.00	0.00	1,401.10	350.27
		08.23 13:15:00	0:15:00		0.00	0.00	1,431.67	357.92
		08.23 13:30:00	0:15:00		0.00	0.00	1,442.36	360.59
		08.23 13:45:00	0:15:00		0.00	0.00	1,481.13	370.28
		08.23 14:00:00	0:15:00		0.25	0.06	1,481.38	370.35
		08.23 14:15:00	0:15:00		6.46	1.62	1,504.74	376.19
		08.23 14:30:00	0:15:00		109.86	27.47	1,503.00	375.75
		08.23 14:45:00	0:15:00		218.73	54.68	1,590.49	397.62
		08.23 15:00:00	0:15:00		336.79	84.20	1,625.54	406.39
		08.23 15:15:00	0:15:00		461.56	115.39	1,670.53	417.63
		08.23 15:30:00	0:15:00		593.55	148.39	1,662.58	415.64
		08.23 15:45:00	0:15:00		737.96	184.49	1,658.10	414.53
		08.23 16:00:00	0:15:00		889.82	222.46	1,581.55	395.39
		08.23 16:15:00	0:15:00		1,057.35	264.34	1,495.05	373.76
		08.23 16:30:00	0:15:00		1,237.80	309.45	1,330.01	332.50
		08.23 16:45:00	0:15:00		1,442.61	360.65	1,227.61	306.90
		08.23 17:00:00	0:15:00		1,660.34	415.08	1,033.98	258.50
		08.23 17:15:00	0:15:00		1,918.59	479.65	832.41	208.10
		08.23 17:30:00	0:15:00		2,418.43	604.61	533.15	133.29
		08.23 17:45:00	0:15:00	10:00:00	3,256.80	814.20	137.20	34.30
30-Aug	12-Apr	08.30 07:37:48	0:03:36		2,148.50	128.91	12.93	0.78
		08.30 07:45:00	0:11:24		1,421.73	270.13	121.29	23.05
		08.30 08:00:00	0:15:00		318.89	79.72	382.52	95.63
		08.30 08:15:00	0:15:00		2.24	0.56	639.28	159.82
		08.30 08:30:00	0:15:00		1.24	0.31	845.08	211.27
		08.30 08:45:00	0:15:00		0.99	0.25	1,023.54	255.89
		08.30 09:00:00	0:15:00		0.75	0.19	1,167.95	291.99
		08.30 09:15:00	0:15:00		0.50	0.12	1,292.48	323.12
		08.30 09:30:00	0:15:00		0.50	0.12	1,348.16	337.04
		08.30 09:45:00	0:15:00		0.25	0.06	1,407.31	351.83
		08.30 10:00:00	0:15:00		0.25	0.06	1,436.89	359.22
		08.30 10:15:00	0:15:00		0.25	0.06	1,474.17	368.54
		08.30 10:30:00	0:15:00		0.25	0.06	1,477.90	369.48
		08.30 10:45:00	0:15:00		0.25	0.06	1,495.05	373.76
		08.30 11:00:00	0:15:00		0.25	0.06	1,492.32	373.08
		08.30 11:15:00	0:15:00		0.25	0.06	1,517.17	379.29
		08.30 11:30:00	0:15:00		0.00	0.00	1,522.64	380.66
		08.30 11:45:00	0:15:00		0.00	0.00	1,549.23	387.31
		08.30 12:00:00	0:15:00		0.00	0.00	1,550.48	387.62
		08.30 12:15:00	0:15:00		0.00	0.00	1,571.36	392.84
		08.30 12:30:00	0:15:00		0.00	0.00	1,563.90	390.98
		08.30 12:45:00	0:15:00		0.00	0.00	1,581.55	395.39
		08.30 13:00:00	0:15:00		0.00	0.00	1,573.84	393.46

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		08.30 13:15:00	0:15:00		0.00	0.00	1,614.60	403.65
		08.30 13:30:00	0:15:00		0.00	0.00	1,631.26	407.81
		08.30 13:45:00	0:15:00		0.25	0.06	1,674.01	418.50
		08.30 14:00:00	0:15:00		0.25	0.06	1,686.19	421.55
		08.30 14:15:00	0:15:00		37.03	9.26	1,711.54	427.89
		08.30 14:30:00	0:15:00		146.90	36.72	1,760.01	440.00
		08.30 14:45:00	0:15:00		261.73	65.43	1,880.56	470.14
		08.30 15:00:00	0:15:00		388.74	97.18	1,951.64	487.91
		08.30 15:15:00	0:15:00		521.96	130.49	2,042.37	510.59
		08.30 15:30:00	0:15:00		663.14	165.79	2,078.65	519.66
		08.30 15:45:00	0:15:00		818.49	204.62	2,100.53	525.13
		08.30 16:00:00	0:15:00		981.54	245.39	2,048.83	512.21
		08.30 16:15:00	0:15:00		1,166.96	291.74	2,001.35	500.34
		08.30 16:30:00	0:15:00		1,367.79	341.95	1,908.89	477.22
		08.30 16:45:00	0:15:00		1,595.71	398.93	1,771.94	442.99
		08.30 17:00:00	0:15:00		1,841.04	460.26	1,544.26	386.07
		08.30 17:15:00	0:15:00		2,191.50	547.87	1,295.21	323.80
		08.30 17:30:00	0:15:00		2,953.81	738.45	1,022.30	255.58
		08.30 17:45:00	0:15:00		3,939.08	984.77	652.45	163.11
08.30 18:00:00	0:15:00	10:30:00	5,209.19	1,302.30	99.17	24.79	15,120.97	
6-Sep	5-Apr	09.06 07:44:24	0:07:48		2,123.39	276.04	394.95	51.34
		09.06 08:00:00	0:15:00		678.30	169.58	684.52	171.13
		09.06 08:15:00	0:15:00		1.24	0.31	960.41	240.10
		09.06 08:30:00	0:15:00		0.99	0.25	1,169.94	292.49
		09.06 08:45:00	0:15:00		0.75	0.19	1,345.67	336.42
		09.06 09:00:00	0:15:00		0.50	0.12	1,480.14	370.03
		09.06 09:15:00	0:15:00		0.50	0.12	1,602.67	400.67
		09.06 09:30:00	0:15:00		0.25	0.06	1,656.11	414.03
		09.06 09:45:00	0:15:00		0.25	0.06	1,711.79	427.95
		09.06 10:00:00	0:15:00		0.25	0.06	1,721.73	430.43
		09.06 10:15:00	0:15:00		0.25	0.06	1,739.88	434.97
		09.06 10:30:00	0:15:00		0.25	0.06	1,731.18	432.79
		09.06 10:45:00	0:15:00		0.25	0.06	1,734.16	433.54
		09.06 11:00:00	0:15:00		0.25	0.06	1,718.75	429.69
		09.06 11:15:00	0:15:00		0.00	0.00	1,735.40	433.85
		09.06 11:30:00	0:15:00		0.00	0.00	1,735.90	433.98
		09.06 11:45:00	0:15:00		0.00	0.00	1,762.99	440.75
		09.06 12:00:00	0:15:00		0.00	0.00	1,755.04	438.76
		09.06 12:15:00	0:15:00		0.00	0.00	1,777.41	444.35
		09.06 12:30:00	0:15:00		0.00	0.00	1,761.00	440.25
		09.06 12:45:00	0:15:00		0.00	0.00	1,782.63	445.66
		09.06 13:00:00	0:15:00		0.00	0.00	1,772.19	443.05
		09.06 13:15:00	0:15:00		0.00	0.00	1,821.40	455.35
		09.06 13:30:00	0:15:00		0.00	0.00	1,845.01	461.25
		09.06 13:45:00	0:15:00		0.25	0.06	1,896.22	474.05
		09.06 14:00:00	0:15:00		0.25	0.06	1,914.11	478.53
		09.06 14:15:00	0:15:00		73.08	18.27	1,942.70	485.67
		09.06 14:30:00	0:15:00		190.39	47.60	2,072.19	518.05
		09.06 14:45:00	0:15:00		315.41	78.85	2,229.77	557.44
		09.06 15:00:00	0:15:00		448.64	112.16	2,345.85	586.46
		09.06 15:15:00	0:15:00		592.30	148.08	2,494.98	623.75
		09.06 15:30:00	0:15:00		744.42	186.10	2,576.51	644.13
		09.06 15:45:00	0:15:00		913.19	228.30	2,630.44	657.61
09.06 16:00:00	0:15:00		1,098.36	274.59	2,614.54	653.63		
09.06 16:15:00	0:15:00		1,299.94	324.98	2,639.89	659.97		
09.06 16:30:00	0:15:00		1,522.14	380.54	2,611.55	652.89		
09.06 16:45:00	0:15:00		1,780.39	445.10	2,531.27	632.82		
09.06 17:00:00	0:15:00		2,075.17	518.79	2,223.06	555.77		
09.06 17:15:00	0:15:00		2,704.51	676.13	1,909.39	477.35		

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		09.06 17:30:00	0:15:00	3,610.49	902.62	1,635.98	409.00	
		09.06 17:45:00	0:15:00	4,774.47	1,193.62	1,307.89	326.97	
		09.06 18:00:00	0:15:00	6,344.58	1,586.15	748.89	187.22	
		09.06 18:15:00	0:16:12	10:39:00	8,723.49	2,355.34	1.99	0.54
13-Sep	29-Mar	09.13 07:50:24	0:04:48		2,119.42	169.55	822.22	65.78
		09.13 08:00:00	0:12:36		1,139.62	239.32	1,000.93	210.19
		09.13 08:15:00	0:15:00		116.82	29.21	1,295.21	323.80
		09.13 08:30:00	0:15:00		0.75	0.19	1,524.88	381.22
		09.13 08:45:00	0:15:00		0.50	0.12	1,696.13	424.03
		09.13 09:00:00	0:15:00		0.50	0.12	1,823.64	455.91
		09.13 09:15:00	0:15:00		0.25	0.06	1,934.74	483.69
		09.13 09:30:00	0:15:00		0.25	0.06	908.00	497.98
		09.13 09:45:00	0:15:00		0.25	0.06	2,042.12	510.53
		09.13 10:00:00	0:15:00		0.25	0.06	2,041.87	510.47
		09.13 10:15:00	0:15:00		0.25	0.06	2,036.65	509.16
		09.13 10:30:00	0:15:00		0.25	0.06	2,007.82	501.95
		09.13 10:45:00	0:15:00		0.25	0.06	2,003.59	500.90
		09.13 11:00:00	0:15:00		0.00	0.00	1,985.94	496.49
		09.13 11:15:00	0:15:00		0.00	0.00	2,001.60	500.40
		09.13 11:30:00	0:15:00		0.00	0.00	2,002.60	500.65
		09.13 11:45:00	0:15:00		0.00	0.00	2,036.40	509.10
		09.13 12:00:00	0:15:00		0.00	0.00	2,030.68	507.67
		09.13 12:15:00	0:15:00		0.00	0.00	2,061.01	515.25
		09.13 12:30:00	0:15:00		0.00	0.00	2,051.56	512.89
		09.13 12:45:00	0:15:00		0.00	0.00	2,075.42	518.86
		09.13 13:00:00	0:15:00		0.00	0.00	2,074.43	518.61
		09.13 13:15:00	0:15:00		0.00	0.00	2,126.13	531.53
		09.13 13:30:00	0:15:00		0.00	0.00	2,144.27	536.07
		09.13 13:45:00	0:15:00		0.25	0.06	2,193.73	548.43
		09.13 14:00:00	0:15:00		4.97	1.24	2,201.94	550.48
		09.13 14:15:00	0:15:00		116.82	29.21	2,269.29	567.32
		09.13 14:30:00	0:15:00		241.10	60.27	2,436.82	609.21
		09.13 14:45:00	0:15:00		375.07	93.77	2,631.93	657.98
		09.13 15:00:00	0:15:00		518.98	129.75	2,792.00	698.00
		09.13 15:15:00	0:15:00		673.08	168.27	2,992.83	748.21
		09.13 15:30:00	0:15:00		840.36	210.09	3,141.97	785.49
		09.13 15:45:00	0:15:00		1,028.27	257.07	3,262.02	815.50
		09.13 16:00:00	0:15:00		1,229.10	307.27	3,293.58	823.40
		09.13 16:15:00	0:15:00		1,459.76	364.94	3,438.49	859.62
		09.13 16:30:00	0:15:00		1,715.02	428.76	3,472.54	868.14
		09.13 16:45:00	0:15:00		2,004.59	501.15	3,380.58	845.14
		09.13 17:00:00	0:15:00		2,489.51	622.38	2,979.91	744.98
		09.13 17:15:00	0:15:00		3,336.83	834.21	2,634.67	658.67
		09.13 17:30:00	0:15:00		4,416.30	1,104.08	2,412.21	603.05
		09.13 17:45:00	0:15:00		5,828.58	1,457.15	2,102.52	525.63
		09.13 18:00:00	0:15:00		7,834.66	1,958.66	1,482.62	370.66
		09.13 18:15:00	0:10:48		10,562.04	1,901.17	682.78	122.90
		09.13 18:21:00	0:03:00	10:31:12	11,405.88	570.29	344.99	17.25
20-Sep	22-Mar	09.20 07:57:00	0:01:12		2,031.18	40.62	1,262.16	25.24
		09.20 08:00:00	0:09:00		1,683.45	252.52	1,324.54	198.68
		09.20 08:15:00	0:15:00		440.19	110.05	1,629.52	407.38
		09.20 08:30:00	0:15:00		0.50	0.12	1,894.72	473.68
		09.20 08:45:00	0:15:00		0.50	0.12	2,074.43	518.61
		09.20 09:00:00	0:15:00		0.25	0.06	2,189.01	547.25
		09.20 09:15:00	0:15:00		0.25	0.06	2,295.14	573.79
		09.20 09:30:00	0:15:00		0.25	0.06	2,351.81	587.95
		09.20 09:45:00	0:15:00		0.25	0.06	2,398.05	599.51
		09.20 10:00:00	0:15:00		0.25	0.06	2,389.10	597.27
		09.20 10:15:00	0:15:00		0.25	0.06	2,364.49	591.12

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		09.20 10:30:00	0:15:00		0.25	0.06	2,318.26	579.57
		09.20 10:45:00	0:15:00		0.00	0.00	2,307.82	576.96
		09.20 11:00:00	0:15:00		0.00	0.00	2,281.23	570.31
		09.20 11:15:00	0:15:00		0.00	0.00	2,298.38	574.59
		09.20 11:30:00	0:15:00		0.00	0.00	2,300.12	575.03
		09.20 11:45:00	0:15:00		0.00	0.00	2,336.65	584.16
		09.20 12:00:00	0:15:00		0.00	0.00	2,339.14	584.78
		09.20 12:15:00	0:15:00		0.00	0.00	2,368.96	592.24
		09.20 12:30:00	0:15:00		0.00	0.00	2,364.24	591.06
		09.20 12:45:00	0:15:00		0.00	0.00	2,396.55	599.14
		09.20 13:00:00	0:15:00		0.00	0.00	2,404.51	601.13
		09.20 13:15:00	0:15:00		0.00	0.00	2,458.94	614.74
		09.20 13:30:00	0:15:00		0.25	0.06	2,478.33	619.58
		09.20 13:45:00	0:15:00		0.25	0.06	2,533.01	633.25
		09.20 14:00:00	0:15:00		40.51	10.13	2,535.00	633.75
		09.20 14:15:00	0:15:00		165.04	41.26	2,683.38	670.85
		09.20 14:30:00	0:15:00		296.52	74.13	2,876.26	719.07
		09.20 14:45:00	0:15:00		444.41	111.10	3,110.90	777.72
		09.20 15:00:00	0:15:00		599.01	149.75	3,313.97	828.49
		09.20 15:15:00	0:15:00		771.51	192.88	3,571.47	892.87
		09.20 15:30:00	0:15:00		955.69	238.92	3,778.76	944.69
		09.20 15:45:00	0:15:00		1,162.24	290.56	4,002.96	1,000.74
		09.20 16:00:00	0:15:00		1,387.68	346.92	4,149.85	1,037.46
		09.20 16:15:00	0:15:00		1,649.90	412.48	4,379.02	1,094.75
		09.20 16:30:00	0:15:00		1,940.21	485.05	4,517.46	1,129.37
		09.20 16:45:00	0:15:00		2,316.77	579.19	4,175.45	1,043.86
		09.20 17:00:00	0:15:00		3,095.74	773.93	3,764.59	941.15
		09.20 17:15:00	0:15:00		4,099.15	1,024.79	3,491.18	872.80
		09.20 17:30:00	0:15:00		5,385.16	1,346.29	3,367.65	841.91
		09.20 17:45:00	0:15:00		7,173.01	1,793.25	2,973.45	743.36
		09.20 18:00:00	0:12:36		9,440.07	1,982.41	2,206.16	463.29
		09.20 18:09:36	0:04:48	10:12:36	10,827.24	866.18	1,596.46	127.72
27-Sep	15-Mar	09.27 08:03:00	0:06:00		1,786.60	178.66	1,716.51	171.65
		09.27 08:15:00	0:13:12		762.56	167.76	1,967.55	432.86
		09.27 08:30:00	0:15:00		11.93	2.98	2,273.02	568.26
		09.27 08:45:00	0:15:00		0.25	0.06	2,475.10	618.77
		09.27 09:00:00	0:15:00		0.25	0.06	2,593.16	648.29
		09.27 09:15:00	0:15:00		0.25	0.06	2,682.89	670.72
		09.27 09:30:00	0:15:00		0.25	0.06	2,734.09	683.52
		09.27 09:45:00	0:15:00		0.25	0.06	2,778.83	694.71
		09.27 10:00:00	0:15:00		0.25	0.06	2,775.35	693.84
		09.27 10:15:00	0:15:00		0.25	0.06	2,724.15	681.04
		09.27 10:30:00	0:15:00		0.25	0.06	2,658.78	664.69
		09.27 10:45:00	0:15:00		0.00	0.00	2,639.39	659.85
		09.27 11:00:00	0:15:00		0.00	0.00	2,606.58	651.65
		09.27 11:15:00	0:15:00		0.00	0.00	2,622.74	655.68
		09.27 11:30:00	0:15:00		0.00	0.00	2,625.97	656.49
		09.27 11:45:00	0:15:00		0.00	0.00	2,663.25	665.81
		09.27 12:00:00	0:15:00		0.00	0.00	2,664.74	666.19
		09.27 12:15:00	0:15:00		0.00	0.00	2,702.52	675.63
		09.27 12:30:00	0:15:00		0.00	0.00	2,706.50	676.63
		09.27 12:45:00	0:15:00		0.00	0.00	2,750.25	687.56
		09.27 13:00:00	0:15:00		0.25	0.06	2,760.44	690.11
		09.27 13:15:00	0:15:00		0.00	0.00	2,819.10	704.77
		09.27 13:30:00	0:15:00		0.25	0.06	2,840.22	710.06
		09.27 13:45:00	0:15:00		0.25	0.06	2,897.39	724.35
		09.27 14:00:00	0:15:00		85.50	21.38	2,898.38	724.60
		09.27 14:15:00	0:15:00		218.48	54.62	3,151.16	787.79
		09.27 14:30:00	0:15:00		364.13	91.03	3,379.83	844.96

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		09.27 14:45:00	0:15:00		523.70	130.93	3,668.40	917.10
		09.27 15:00:00	0:15:00		692.22	173.06	3,923.92	980.98
		09.27 15:15:00	0:15:00		883.86	220.96	4,253.25	1,063.31
		09.27 15:30:00	0:15:00		1,083.45	270.86	4,532.13	1,133.03
		09.27 15:45:00	0:15:00		1,315.84	328.96	4,833.62	1,208.41
		09.27 16:00:00	0:15:00		1,579.56	394.89	5,173.39	1,293.35
		09.27 16:15:00	0:15:00		1,872.85	468.21	5,540.01	1,385.00
		09.27 16:30:00	0:15:00		2,215.11	553.78	5,406.29	1,351.57
		09.27 16:45:00	0:15:00		2,863.83	715.96	4,956.41	1,239.10
		09.27 17:00:00	0:15:00		3,794.17	948.54	4,533.87	1,133.47
		09.27 17:15:00	0:15:00		4,996.92	1,249.23	4,346.21	1,086.55
		09.27 17:30:00	0:15:00		6,572.75	1,643.19	4,267.67	1,066.92
		09.27 17:45:00	0:13:48		8,655.13	1,990.68	3,774.04	868.03
09.27 17:58:11	0:06:36	9:54:36	10,373.88	1,141.13	2,862.84	314.91	32,752.19	
4-Oct	8-Mar	10.04 08:09:36	0:02:24		1,588.51	63.54	2,165.15	86.61
		10.04 08:15:00	0:10:12		1,112.53	189.13	2,295.89	390.30
		10.04 08:30:00	0:15:00		148.88	37.22	2,633.92	658.48
		10.04 08:45:00	0:15:00		0.25	0.06	2,887.45	721.86
		10.04 09:00:00	0:15:00		0.25	0.06	3,021.67	755.42
		10.04 09:15:00	0:15:00		0.25	0.06	3,110.40	777.60
		10.04 09:30:00	0:15:00		0.25	0.06	3,139.73	784.93
		10.04 09:45:00	0:15:00		0.25	0.06	3,179.50	794.87
		10.04 10:00:00	0:15:00		0.25	0.06	3,181.98	795.50
		10.04 10:15:00	0:15:00		0.25	0.06	3,120.34	780.09
		10.04 10:30:00	0:15:00		0.00	0.00	3,038.82	759.70
		10.04 10:45:00	0:15:00		0.00	0.00	3,005.76	751.44
		10.04 11:00:00	0:15:00		0.00	0.00	2,962.01	740.50
		10.04 11:15:00	0:15:00		0.00	0.00	2,970.96	742.74
		10.04 11:30:00	0:15:00		0.00	0.00	2,972.70	743.18
		10.04 11:45:00	0:15:00		0.00	0.00	3,018.93	754.73
		10.04 12:00:00	0:15:00		0.00	0.00	3,026.64	756.66
		10.04 12:15:00	0:15:00		0.00	0.00	3,068.39	767.10
		10.04 12:30:00	0:15:00		0.00	0.00	3,075.35	768.84
		10.04 12:45:00	0:15:00		0.00	0.00	3,128.05	782.01
		10.04 13:00:00	0:15:00		0.25	0.06	3,140.47	785.12
		10.04 13:15:00	0:15:00		0.00	0.00	3,210.57	802.64
		10.04 13:30:00	0:15:00		0.25	0.06	3,232.94	808.23
		10.04 13:45:00	0:15:00		5.22	1.31	3,291.84	822.96
		10.04 14:00:00	0:15:00		134.97	33.74	3,351.00	837.75
		10.04 14:15:00	0:15:00		279.13	69.78	3,672.63	918.16
		10.04 14:30:00	0:15:00		435.47	108.87	3,956.23	989.06
		10.04 14:45:00	0:15:00		608.21	152.05	4,306.69	1,076.67
		10.04 15:00:00	0:15:00		793.88	198.47	4,630.30	1,157.58
		10.04 15:15:00	0:15:00		1,005.90	251.47	5,049.37	1,262.34
		10.04 15:30:00	0:15:00		1,232.83	308.21	5,400.08	1,350.02
		10.04 15:45:00	0:15:00		1,497.29	374.32	5,861.64	1,465.41
		10.04 16:00:00	0:15:00		1,792.07	448.02	6,330.16	1,582.54
		10.04 16:15:00	0:15:00		2,129.61	532.40	6,680.62	1,670.16
10.04 16:30:00	0:15:00		2,628.45	657.11	6,230.49	1,557.62		
10.04 16:45:00	0:15:00		3,505.10	876.28	5,705.80	1,426.45		
10.04 17:00:00	0:15:00		4,600.73	1,150.18	5,242.74	1,310.69		
10.04 17:15:00	0:15:00		6,051.04	1,512.76	5,074.97	1,268.74		
10.04 17:30:00	0:16:12		7,922.15	2,138.98	4,855.00	1,310.85		
10.04 17:47:23	0:08:24	9:37:12	10,038.83	1,405.44	4,134.19	578.79	37,094.33	
11-Oct	1-Mar	10.11 08:16:11	0:07:12		1,473.92	176.87	2,614.54	313.74
		10.11 08:30:00	0:14:24		425.52	102.13	2,970.96	713.03
		10.11 08:45:00	0:15:00		0.25	0.06	3,299.55	824.89
		10.11 09:00:00	0:15:00		0.25	0.06	3,462.85	865.71
		10.11 09:15:00	0:15:00		0.25	0.06	3,590.11	897.53

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		10.11 09:30:00	0:15:00		0.25	0.06	3,626.65	906.66
		10.11 09:45:00	0:15:00		0.25	0.06	3,652.00	913.00
		10.11 10:00:00	0:15:00		0.25	0.06	3,631.37	907.84
		10.11 10:15:00	0:15:00		0.00	0.00	3,573.21	893.30
		10.11 10:30:00	0:15:00		0.00	0.00	3,454.40	863.60
		10.11 10:45:00	0:15:00		0.00	0.00	3,400.46	850.12
		10.11 11:00:00	0:15:00		0.00	0.00	3,343.79	835.95
		10.11 11:15:00	0:15:00		0.00	0.00	3,349.76	837.44
		10.11 11:30:00	0:15:00		0.00	0.00	3,348.76	837.19
		10.11 11:45:00	0:15:00		0.00	0.00	3,396.49	849.12
		10.11 12:00:00	0:15:00		0.00	0.00	3,407.17	851.79
		10.11 12:15:00	0:15:00		0.00	0.00	3,454.90	863.72
		10.11 12:30:00	0:15:00		0.00	0.00	3,473.04	868.26
		10.11 12:45:00	0:15:00		0.00	0.00	3,539.90	884.98
		10.11 13:00:00	0:15:00		0.00	0.00	3,557.05	889.26
		10.11 13:15:00	0:15:00		0.00	0.00	3,624.41	906.10
		10.11 13:30:00	0:15:00		0.25	0.06	3,654.48	913.62
		10.11 13:45:00	0:15:00		42.50	10.63	3,706.68	926.67
		10.11 14:00:00	0:15:00		183.93	45.98	3,880.17	970.04
		10.11 14:15:00	0:15:00		343.25	85.81	4,255.49	1,063.87
		10.11 14:30:00	0:15:00		514.01	128.50	4,605.95	1,151.49
		10.11 14:45:00	0:15:00		704.90	176.22	5,030.23	1,257.56
		10.11 15:00:00	0:15:00		908.22	227.05	5,445.31	1,361.33
		10.11 15:15:00	0:15:00		1,140.12	285.03	5,958.33	1,489.58
		10.11 15:30:00	0:15:00		1,400.10	350.03	6,421.63	1,605.41
		10.11 15:45:00	0:15:00		1,701.35	425.34	7,085.77	1,771.44
		10.11 16:00:00	0:15:00		2,030.19	507.55	7,746.67	1,936.67
		10.11 16:15:00	0:15:00		2,437.57	609.39	7,574.17	1,893.54
		10.11 16:30:00	0:15:00		3,190.68	797.67	6,963.73	1,740.93
		10.11 16:45:00	0:15:00		4,210.00	1,052.50	6,399.51	1,599.88
		10.11 17:00:00	0:15:00		5,481.85	1,370.46	5,841.26	1,460.31
		10.11 17:15:00	0:15:00		7,186.43	1,796.61	5,642.91	1,410.73
		10.11 17:30:00	0:11:24		9,142.05	1,736.99	5,076.71	964.57
		10.11 17:37:12	0:03:36	9:21:36	9,637.17	578.23	4,730.72	283.84
18-Oct	22-Feb	10.18 08:22:48	0:03:36		1,323.55	79.41	3,086.79	185.21
		10.18 08:30:00	0:10:48		759.33	136.68	3,291.84	592.53
		10.18 08:45:00	0:15:00		28.34	7.08	3,682.82	920.71
		10.18 09:00:00	0:15:00		0.25	0.06	3,892.10	973.03
		10.18 09:15:00	0:15:00		0.25	0.06	4,070.56	1,017.64
		10.18 09:30:00	0:15:00		0.25	0.06	4,130.46	1,032.62
		10.18 09:45:00	0:15:00		0.25	0.06	4,160.29	1,040.07
		10.18 10:00:00	0:15:00		0.25	0.06	4,137.42	1,034.36
		10.18 10:15:00	0:15:00		0.00	0.00	4,095.17	1,023.79
		10.18 10:30:00	0:15:00		0.00	0.00	3,960.45	990.11
		10.18 10:45:00	0:15:00		0.00	0.00	3,877.93	969.48
		10.18 11:00:00	0:15:00		0.00	0.00	3,785.47	946.37
		10.18 11:15:00	0:15:00		0.00	0.00	3,773.29	943.32
		10.18 11:30:00	0:15:00		0.00	0.00	3,760.86	940.22
		10.18 11:45:00	0:15:00		0.00	0.00	3,806.35	951.59
		10.18 12:00:00	0:15:00		0.00	0.00	3,811.07	952.77
		10.18 12:15:00	0:15:00		0.00	0.00	3,868.49	967.12
		10.18 12:30:00	0:15:00		0.00	0.00	3,887.88	971.97
		10.18 12:45:00	0:15:00		0.00	0.00	3,969.40	992.35
		10.18 13:00:00	0:15:00		0.00	0.00	3,988.04	997.01
		10.18 13:15:00	0:15:00		0.25	0.06	4,057.39	1,014.35
		10.18 13:30:00	0:15:00		0.25	0.06	4,094.67	1,023.67
		10.18 13:45:00	0:15:00		82.02	20.51	4,148.36	1,037.09
		10.18 14:00:00	0:15:00		237.87	59.47	4,465.02	1,116.25
		10.18 14:15:00	0:15:00		408.13	102.03	4,900.73	1,225.18

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		10.18 14:30:00	0:15:00		597.27	149.32	5,321.04	1,330.26
		10.18 14:45:00	0:15:00		803.08	200.77	5,838.52	1,459.63
		10.18 15:00:00	0:15:00		1,027.52	256.88	6,363.72	1,590.93
		10.18 15:15:00	0:15:00		1,292.23	323.06	6,969.19	1,742.30
		10.18 15:30:00	0:15:00		1,578.56	394.64	7,619.66	1,904.92
		10.18 15:45:00	0:15:00		1,921.32	480.33	8,512.46	2,128.12
		10.18 16:00:00	0:15:00		2,296.64	574.16	8,867.40	2,216.85
		10.18 16:15:00	0:15:00		2,909.57	727.39	8,389.43	2,097.36
		10.18 16:30:00	0:15:00		3,809.33	952.33	7,712.37	1,928.09
		10.18 16:45:00	0:15:00		4,926.08	1,231.52	6,901.59	1,725.40
		10.18 17:00:00	0:15:00		6,275.98	1,568.99	6,427.10	1,606.78
		10.18 17:15:00	0:13:12		7,878.90	1,733.36	6,053.77	1,331.83
10.18 17:27:00	0:06:00	9:03:36	9,077.18	907.72	5,291.46	529.15	45,450.39	
25-Oct	15-Feb	10.25 07:30:00	0:07:48		1,189.58	154.65	3,556.06	462.29
		10.25 07:45:00	0:15:00		220.47	55.12	4,001.96	1,000.49
		10.25 08:00:00	0:15:00		0.25	0.06	4,316.13	1,079.03
		10.25 08:15:00	0:15:00		0.25	0.06	4,531.13	1,132.78
		10.25 08:30:00	0:15:00		0.25	0.06	4,633.78	1,158.45
		10.25 08:45:00	0:15:00		0.25	0.06	4,678.77	1,169.69
		10.25 09:00:00	0:15:00		0.00	0.00	4,655.41	1,163.85
		10.25 09:15:00	0:15:00		0.00	0.00	4,639.25	1,159.81
		10.25 09:30:00	0:15:00		0.00	0.00	4,485.90	1,121.47
		10.25 09:45:00	0:15:00		0.00	0.00	4,390.45	1,097.61
		10.25 10:00:00	0:15:00		0.00	0.00	4,282.08	1,070.52
		10.25 10:15:00	0:15:00		0.00	0.00	4,252.01	1,063.00
		10.25 10:30:00	0:15:00		0.00	0.00	4,231.63	1,057.91
		10.25 10:45:00	0:15:00		0.00	0.00	4,280.34	1,070.09
		10.25 11:00:00	0:15:00		0.00	0.00	4,284.57	1,071.14
		10.25 11:15:00	0:15:00		0.00	0.00	4,349.69	1,087.42
		10.25 11:30:00	0:15:00		0.00	0.00	4,366.59	1,091.65
		10.25 11:45:00	0:15:00		0.00	0.00	4,456.57	1,114.14
		10.25 12:00:00	0:15:00		0.00	0.00	4,471.23	1,117.81
		10.25 12:15:00	0:15:00		0.25	0.06	4,551.02	1,137.75
		10.25 12:30:00	0:15:00		0.50	0.12	4,586.31	1,146.58
		10.25 12:45:00	0:15:00		121.54	30.39	4,672.31	1,168.08
		10.25 13:00:00	0:15:00		288.07	72.02	5,098.58	1,274.65
		10.25 13:15:00	0:15:00		475.98	119.00	5,618.80	1,404.70
		10.25 13:30:00	0:15:00		679.05	169.76	6,114.42	1,528.60
		10.25 13:45:00	0:15:00		907.97	226.99	6,749.47	1,687.37
		10.25 14:00:00	0:15:00		1,159.75	289.94	7,373.34	1,843.34
		10.25 14:15:00	0:15:00		1,453.29	363.32	8,109.56	2,027.39
		10.25 14:30:00	0:15:00		1,783.12	445.78	9,008.58	2,252.14
		10.25 14:45:00	0:15:00		2,160.18	540.05	10,120.85	2,530.21
		10.25 15:00:00	0:15:00		2,617.77	654.44	9,720.18	2,430.05
		10.25 15:15:00	0:15:00		3,415.13	853.78	9,160.44	2,290.11
		10.25 15:30:00	0:15:00		4,380.76	1,095.19	8,245.52	2,061.38
10.25 15:45:00	0:15:00		5,550.70	1,387.68	7,353.21	1,838.30		
10.25 16:00:00	0:15:00		6,979.88	1,744.97	6,891.15	1,722.79		
10.25 16:15:00	0:09:00		8,412.30	1,261.84	5,956.34	893.45		
10.25 16:18:00	0:01:48	8:48:36	8,557.45	256.72	5,811.18	174.34	49,700.37	
1-Nov	8-Feb	11.01 07:36:35	0:04:12		1,094.13	76.59	4,006.93	280.49
		11.01 07:45:00	0:11:24		441.43	83.87	4,287.05	814.54
		11.01 08:00:00	0:15:00		1.24	0.31	4,698.66	1,174.66
		11.01 08:15:00	0:15:00		0.25	0.06	4,944.48	1,236.12
		11.01 08:30:00	0:15:00		0.25	0.06	5,122.94	1,280.73
		11.01 08:45:00	0:15:00		0.25	0.06	5,197.75	1,299.44
		11.01 09:00:00	0:15:00		0.00	0.00	5,177.87	1,294.47
		11.01 09:15:00	0:15:00		0.00	0.00	5,172.90	1,293.22
		11.01 09:30:00	0:15:00		0.00	0.00	5,028.98	1,257.25

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSfHr	NewSF	NewSFHr	New SFHR Total/day
		11.01 09:45:00	0:15:00		0.00	0.00	4,924.10	1,231.02
		11.01 10:00:00	0:15:00		0.00	0.00	4,790.62	1,197.66
		11.01 10:15:00	0:15:00		0.00	0.00	4,744.39	1,186.10
		11.01 10:30:00	0:15:00		0.00	0.00	4,713.57	1,178.39
		11.01 10:45:00	0:15:00		0.00	0.00	4,764.03	1,191.01
		11.01 11:00:00	0:15:00		0.00	0.00	4,769.49	1,192.37
		11.01 11:15:00	0:15:00		0.00	0.00	4,844.56	1,211.14
		11.01 11:30:00	0:15:00		0.00	0.00	4,871.40	1,217.85
		11.01 11:45:00	0:15:00		0.00	0.00	4,967.34	1,241.84
		11.01 12:00:00	0:15:00		0.00	0.00	4,984.74	1,246.19
		11.01 12:15:00	0:15:00		0.25	0.06	5,067.26	1,266.82
		11.01 12:30:00	0:15:00		4.23	1.06	5,093.86	1,273.46
		11.01 12:45:00	0:15:00		158.33	39.58	5,282.26	1,320.57
		11.01 13:00:00	0:15:00		339.52	84.88	5,772.91	1,443.23
		11.01 13:15:00	0:15:00		541.60	135.40	6,372.91	1,593.23
		11.01 13:30:00	0:15:00		763.31	190.83	6,959.25	1,739.81
		11.01 13:45:00	0:15:00		1,010.62	252.66	7,712.12	1,928.03
		11.01 14:00:00	0:15:00		1,289.00	322.25	8,369.79	2,092.45
		11.01 14:15:00	0:15:00		1,615.85	403.96	9,135.09	2,283.77
		11.01 14:30:00	0:15:00		1,983.21	495.80	10,023.42	2,505.86
		11.01 14:45:00	0:15:00		2,400.03	600.01	10,553.59	2,638.40
		11.01 15:00:00	0:15:00		3,010.73	752.68	10,002.04	2,500.51
		11.01 15:15:00	0:15:00		3,925.66	981.41	9,361.77	2,340.44
		11.01 15:30:00	0:15:00		4,907.19	1,226.80	8,546.76	2,136.69
		11.01 15:45:00	0:15:00		6,051.04	1,512.76	7,781.22	1,945.31
		11.01 16:00:00	0:12:36		7,336.06	1,540.57	7,032.58	1,476.84
		11.01 16:10:12	0:05:24	8:33:36	8,052.14	724.69	6,316.49	568.48
8-Nov	1-Feb	11.08 07:43:48	0:00:36		954.45	9.54	4,459.80	44.60
		11.08 07:45:00	0:07:48		864.97	112.45	4,503.54	585.46
		11.08 08:00:00	0:15:00		78.79	19.70	4,984.49	1,246.12
		11.08 08:15:00	0:15:00		0.25	0.06	5,320.29	1,330.07
		11.08 08:30:00	0:15:00		0.25	0.06	5,565.86	1,391.47
		11.08 08:45:00	0:15:00		0.00	0.00	5,693.87	1,423.47
		11.08 09:00:00	0:15:00		0.00	0.00	5,690.39	1,422.60
		11.08 09:15:00	0:15:00		0.00	0.00	5,690.39	1,422.60
		11.08 09:30:00	0:15:00		0.00	0.00	5,582.02	1,395.50
		11.08 09:45:00	0:15:00		0.00	0.00	5,465.94	1,366.49
		11.08 10:00:00	0:15:00		0.00	0.00	5,305.13	1,326.28
		11.08 10:15:00	0:15:00		0.00	0.00	5,240.26	1,310.06
		11.08 10:30:00	0:15:00		0.00	0.00	5,193.53	1,298.38
		11.08 10:45:00	0:15:00		0.00	0.00	5,245.48	1,311.37
		11.08 11:00:00	0:15:00		0.00	0.00	5,255.91	1,313.98
		11.08 11:15:00	0:15:00		0.00	0.00	5,336.69	1,334.17
		11.08 11:30:00	0:15:00		0.00	0.00	5,368.26	1,342.07
		11.08 11:45:00	0:15:00		0.00	0.00	5,478.12	1,369.53
		11.08 12:00:00	0:15:00		0.00	0.00	5,497.51	1,374.38
		11.08 12:15:00	0:15:00		0.25	0.06	5,581.52	1,395.38
		11.08 12:30:00	0:15:00		20.13	5.03	5,604.39	1,401.10
		11.08 12:45:00	0:15:00		189.40	47.35	5,905.88	1,476.47
		11.08 13:00:00	0:15:00		381.53	95.38	6,479.79	1,619.95
		11.08 13:15:00	0:15:00		600.26	150.06	7,191.65	1,797.91
		11.08 13:30:00	0:15:00		837.38	209.34	7,876.17	1,969.04
		11.08 13:45:00	0:15:00		1,109.30	277.32	8,678.00	2,169.50
		11.08 14:00:00	0:15:00		1,413.03	353.26	9,213.38	2,303.35
		11.08 14:15:00	0:15:00		1,771.69	442.92	9,978.43	2,494.61
		11.08 14:30:00	0:15:00		2,170.37	542.59	10,860.30	2,715.08
		11.08 14:45:00	0:15:00		2,658.03	664.51	10,668.67	2,667.17
		11.08 15:00:00	0:15:00		3,394.75	848.69	9,992.35	2,498.09
		11.08 15:15:00	0:15:00		4,345.96	1,086.49	9,404.77	2,351.19

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		11.08 15:30:00	0:15:00	5,290.71	1,322.68	8,717.77	2,179.44	
		11.08 15:45:00	0:15:00	6,328.42	1,582.11	7,973.60	1,993.40	
		11.08 16:00:00	0:09:00	7,407.15	1,111.07	6,961.49	1,044.22	
		11.08 16:03:00	0:01:48	8:19:12	7,566.97	227.01	6,801.67	204.05
15-Nov	25-Jan	11.15 07:51:00	0:04:48		1,222.88	97.83	4,523.92	361.91
		11.15 08:00:00	0:12:00		245.07	49.02	5,194.52	1,038.90
		11.15 08:15:00	0:15:00		0.25	0.06	5,659.57	1,414.89
		11.15 08:30:00	0:15:00		0.25	0.06	5,930.24	1,482.56
		11.15 08:45:00	0:15:00		0.00	0.00	6,144.49	1,536.12
		11.15 09:00:00	0:15:00		0.00	0.00	6,179.04	1,544.76
		11.15 09:15:00	0:15:00		0.00	0.00	6,185.50	1,546.38
		11.15 09:30:00	0:15:00		0.00	0.00	6,105.22	1,526.31
		11.15 09:45:00	0:15:00		0.00	0.00	6,001.57	1,500.39
		11.15 10:00:00	0:15:00		0.00	0.00	5,825.10	1,456.28
		11.15 10:15:00	0:15:00		0.00	0.00	5,725.68	1,431.42
		11.15 10:30:00	0:15:00		0.00	0.00	5,646.64	1,411.66
		11.15 10:45:00	0:15:00		0.00	0.00	5,705.30	1,426.33
		11.15 11:00:00	0:15:00		0.00	0.00	5,724.93	1,431.23
		11.15 11:15:00	0:15:00		0.00	0.00	5,805.71	1,451.43
		11.15 11:30:00	0:15:00		0.00	0.00	5,846.48	1,461.62
		11.15 11:45:00	0:15:00		0.00	0.00	5,964.79	1,491.20
		11.15 12:00:00	0:15:00		0.00	0.00	5,976.47	1,494.12
		11.15 12:15:00	0:15:00		0.25	0.06	6,070.42	1,517.61
		11.15 12:30:00	0:15:00		31.82	7.95	6,090.06	1,522.52
		11.15 12:45:00	0:15:00		210.03	52.51	6,505.14	1,626.29
		11.15 13:00:00	0:15:00		414.09	103.52	7,163.56	1,790.89
		11.15 13:15:00	0:15:00		647.73	161.93	7,985.28	1,996.32
		11.15 13:30:00	0:15:00		903.24	225.81	8,780.90	2,195.23
		11.15 13:45:00	0:15:00		1,195.05	298.76	9,569.56	2,392.39
		11.15 14:00:00	0:15:00		1,521.65	380.41	10,098.48	2,524.62
		11.15 14:15:00	0:15:00		1,916.35	479.09	10,846.63	2,711.66
		11.15 14:30:00	0:15:00		2,338.89	584.72	11,459.31	2,864.83
		11.15 14:45:00	0:15:00		2,910.81	727.70	10,719.62	2,679.91
		11.15 15:00:00	0:15:00		3,744.46	936.12	9,963.52	2,490.88
		11.15 15:15:00	0:15:00		4,638.01	1,159.50	9,372.71	2,343.18
		11.15 15:30:00	0:15:00		5,491.54	1,372.89	8,732.68	2,183.17
		11.15 15:45:00	0:13:48		6,397.27	1,471.37	7,971.36	1,833.41
		11.15 15:57:36	0:06:36		7,126.28	783.89	7,242.35	796.66
		11.22 07:57:36	0:01:12	8:08:24	2,302.10	46.04	3,705.69	74.11
22-Nov	18-Jan	11.22 08:00:00	0:09:00		1,656.86	248.53	4,272.39	640.86
		11.22 08:15:00	0:15:00		21.13	5.28	5,882.02	1,470.51
		11.22 08:30:00	0:15:00		0.25	0.06	6,198.18	1,549.55
		11.22 08:45:00	0:15:00		0.00	0.00	6,518.57	1,629.64
		11.22 09:00:00	0:15:00		0.00	0.00	6,597.11	1,649.28
		11.22 09:15:00	0:15:00		0.00	0.00	6,633.90	1,658.47
		11.22 09:30:00	0:15:00		0.00	0.00	6,578.96	1,644.74
		11.22 09:45:00	0:15:00		0.00	0.00	6,505.39	1,626.35
		11.22 10:00:00	0:15:00		0.00	0.00	6,299.84	1,574.96
		11.22 10:15:00	0:15:00		0.00	0.00	6,195.20	1,548.80
		11.22 10:30:00	0:15:00		0.00	0.00	6,079.62	1,519.91
		11.22 10:45:00	0:15:00		0.00	0.00	6,126.35	1,531.59
		11.22 11:00:00	0:15:00		0.00	0.00	6,144.49	1,536.12
		11.22 11:15:00	0:15:00		0.00	0.00	6,233.97	1,558.49
		11.22 11:30:00	0:15:00		0.00	0.00	6,281.94	1,570.49
		11.22 11:45:00	0:15:00		0.00	0.00	6,412.43	1,603.11
		11.22 12:00:00	0:15:00		0.00	0.00	6,418.40	1,604.60
		11.22 12:15:00	0:15:00		0.25	0.06	6,516.83	1,629.21
		11.22 12:30:00	0:15:00		33.06	8.26	6,531.49	1,632.87
		11.22 12:45:00	0:15:00		219.72	54.93	7,019.40	1,754.85

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		11.22 13:00:00	0:15:00	433.98	108.49	7,747.91	1,936.98	
		11.22 13:15:00	0:15:00	678.80	169.70	8,687.94	2,171.99	
		11.22 13:30:00	0:15:00	946.49	236.62	9,493.75	2,373.44	
		11.22 13:45:00	0:15:00	1,258.92	314.73	10,187.47	2,546.87	
		11.22 14:00:00	0:15:00	1,606.90	401.73	10,725.34	2,681.33	
		11.22 14:15:00	0:15:00	2,026.71	506.68	11,427.00	2,856.75	
		11.22 14:30:00	0:15:00	2,480.07	620.02	11,518.97	2,879.74	
		11.22 14:45:00	0:15:00	3,117.86	779.46	10,745.47	2,686.37	
		11.22 15:00:00	0:15:00	3,970.40	992.60	9,960.04	2,490.01	
		11.22 15:15:00	0:15:00	4,801.56	1,200.39	9,378.42	2,344.61	
		11.22 15:30:00	0:15:00	5,550.95	1,387.74	8,767.48	2,191.87	
		11.22 15:45:00	0:12:00	6,277.47	1,255.49	8,091.16	1,618.23	
		11.22 15:54:00	0:04:48	7:55:48	6,771.35	541.71	7,597.29	607.78
29-Nov	11-Jan	11.29 08:04:12	0:05:24	3,356.22	302.06	3,048.51	274.37	
		11.29 08:15:00	0:12:36	234.64	49.27	5,883.26	1,235.49	
		11.29 08:30:00	0:15:00	0.00	0.00	6,416.66	1,604.17	
		11.29 08:45:00	0:15:00	0.00	0.00	6,783.52	1,695.88	
		11.29 09:00:00	0:15:00	0.00	0.00	6,954.03	1,738.51	
		11.29 09:15:00	0:15:00	0.00	0.00	7,012.69	1,753.17	
		11.29 09:30:00	0:15:00	0.00	0.00	6,957.01	1,739.25	
		11.29 09:45:00	0:15:00	0.00	0.00	6,924.21	1,731.05	
		11.29 10:00:00	0:15:00	0.00	0.00	6,724.12	1,681.03	
		11.29 10:15:00	0:15:00	0.00	0.00	6,598.60	1,649.65	
		11.29 10:30:00	0:15:00	0.00	0.00	6,463.39	1,615.85	
		11.29 10:45:00	0:15:00	0.00	0.00	6,485.76	1,621.44	
		11.29 11:00:00	0:15:00	0.00	0.00	6,499.68	1,624.92	
		11.29 11:15:00	0:15:00	0.00	0.00	6,598.10	1,649.53	
		11.29 11:30:00	0:15:00	0.00	0.00	6,646.07	1,661.52	
		11.29 11:45:00	0:15:00	0.00	0.00	6,779.05	1,694.76	
		11.29 12:00:00	0:15:00	0.25	0.06	6,809.87	1,702.47	
		11.29 12:15:00	0:15:00	0.25	0.06	6,898.11	1,724.53	
		11.29 12:30:00	0:15:00	24.36	6.09	6,923.46	1,730.87	
		11.29 12:45:00	0:15:00	214.01	53.50	7,390.99	1,847.75	
		11.29 13:00:00	0:15:00	435.71	108.93	8,136.15	2,034.04	
		11.29 13:15:00	0:15:00	689.99	172.50	8,993.91	2,248.48	
		11.29 13:30:00	0:15:00	970.35	242.59	9,811.65	2,452.91	
		11.29 13:45:00	0:15:00	1,294.22	323.56	10,533.70	2,633.43	
		11.29 14:00:00	0:15:00	1,658.85	414.71	10,993.28	2,748.32	
		11.29 14:15:00	0:15:00	2,093.32	523.33	11,574.15	2,893.54	
		11.29 14:30:00	0:15:00	2,566.32	641.58	11,536.86	2,884.22	
		11.29 14:45:00	0:15:00	3,246.36	811.59	10,776.29	2,694.07	
		11.29 15:00:00	0:15:00	4,126.98	1,031.75	9,962.03	2,490.51	
		11.29 15:15:00	0:15:00	4,844.56	1,211.14	9,434.85	2,358.71	
		11.29 15:30:00	0:15:00	5,491.54	1,372.89	8,867.40	2,216.85	
		11.29 15:45:00	0:10:48	6,126.85	1,102.83	8,241.79	1,483.52	
		11.29 15:51:36	0:03:00	7:46:48	6,487.25	324.36	7,881.39	394.07
6-Dec	4-Jan	12.06 08:10:12	0:02:24	4,094.17	163.77	2,695.56	107.82	
		12.06 08:15:00	0:10:12	2,636.16	448.15	3,952.50	671.93	
		12.06 08:30:00	0:15:00	0.25	0.06	6,549.64	1,637.41	
		12.06 08:45:00	0:15:00	0.00	0.00	6,913.77	1,728.44	
		12.06 09:00:00	0:15:00	0.00	0.00	7,189.16	1,797.29	
		12.06 09:15:00	0:15:00	0.00	0.00	7,299.77	1,824.94	
		12.06 09:30:00	0:15:00	0.00	0.00	7,268.45	1,817.11	
		12.06 09:45:00	0:15:00	0.00	0.00	7,244.84	1,811.21	
		12.06 10:00:00	0:15:00	0.00	0.00	7,077.07	1,769.27	
		12.06 10:15:00	0:15:00	0.00	0.00	6,940.86	1,735.22	
		12.06 10:30:00	0:15:00	0.00	0.00	6,767.87	1,691.97	
		12.06 10:45:00	0:15:00	0.00	0.00	6,764.88	1,691.22	
		12.06 11:00:00	0:15:00	0.00	0.00	6,770.85	1,692.71	

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		12.06 11:15:00	0:15:00		0.00	0.00	6,875.24	1,718.81
		12.06 11:30:00	0:15:00		0.00	0.00	6,928.93	1,732.23
		12.06 11:45:00	0:15:00		0.00	0.00	7,077.31	1,769.33
		12.06 12:00:00	0:15:00		0.25	0.06	7,107.89	1,776.97
		12.06 12:15:00	0:15:00		0.25	0.06	7,188.67	1,797.17
		12.06 12:30:00	0:15:00		7.46	1.86	7,217.50	1,804.38
		12.06 12:45:00	0:15:00		195.86	48.97	7,602.51	1,900.63
		12.06 13:00:00	0:15:00		421.05	105.26	8,331.27	2,082.82
		12.06 13:15:00	0:15:00		678.80	169.70	9,164.42	2,291.11
		12.06 13:30:00	0:15:00		964.39	241.10	9,973.21	2,493.30
		12.06 13:45:00	0:15:00		1,297.45	324.36	10,661.95	2,665.49
		12.06 14:00:00	0:15:00		1,668.54	417.14	11,067.59	2,766.90
		12.06 14:15:00	0:15:00		2,115.44	528.86	11,613.17	2,903.29
		12.06 14:30:00	0:15:00		2,596.39	649.10	11,583.09	2,895.77
		12.06 14:45:00	0:15:00		3,288.86	822.22	10,823.27	2,705.82
		12.06 15:00:00	0:15:00		4,171.72	1,042.93	10,021.93	2,505.48
		12.06 15:15:00	0:15:00		4,789.38	1,197.35	9,535.26	2,383.82
		12.06 15:30:00	0:15:00		5,380.19	1,345.05	8,988.44	2,247.11
12.06 15:45:00	0:10:12		5,944.16	1,010.51	8,424.48	1,432.16		
12.06 15:51:00	0:03:00	7:40:48	6,273.00	313.65	8,095.64	404.78	62,253.89	
13-Dec	27-Dec	12.13 08:15:36	0:07:12		4,670.57	560.47	2,418.68	290.24
		12.13 08:30:00	0:15:00		304.23	76.06	6,302.57	1,575.64
		12.13 08:45:00	0:15:00		0.00	0.00	6,955.52	1,738.88
		12.13 09:00:00	0:15:00		0.00	0.00	7,302.50	1,825.63
		12.13 09:15:00	0:15:00		0.00	0.00	7,472.52	1,868.13
		12.13 09:30:00	0:15:00		0.00	0.00	7,458.60	1,864.65
		12.13 09:45:00	0:15:00		0.00	0.00	7,454.12	1,863.53
		12.13 10:00:00	0:15:00		0.00	0.00	7,338.05	1,834.51
		12.13 10:15:00	0:15:00		0.00	0.00	7,177.73	1,794.43
		12.13 10:30:00	0:15:00		0.00	0.00	6,981.37	1,745.34
		12.13 10:45:00	0:15:00		0.00	0.00	6,948.07	1,737.02
		12.13 11:00:00	0:15:00		0.00	0.00	6,951.55	1,737.89
		12.13 11:15:00	0:15:00		0.00	0.00	7,048.73	1,762.18
		12.13 11:30:00	0:15:00		0.00	0.00	7,094.71	1,773.68
		12.13 11:45:00	0:15:00		0.00	0.00	7,239.87	1,809.97
		12.13 12:00:00	0:15:00		0.00	0.00	7,281.87	1,820.47
		12.13 12:15:00	0:15:00		0.25	0.06	7,373.84	1,843.46
		12.13 12:30:00	0:15:00		0.50	0.12	7,399.44	1,849.86
		12.13 12:45:00	0:15:00		163.55	40.89	7,661.66	1,915.42
		12.13 13:00:00	0:15:00		385.26	96.32	8,381.97	2,095.49
		12.13 13:15:00	0:15:00		644.75	161.19	9,198.97	2,299.74
		12.13 13:30:00	0:15:00		930.09	232.52	9,992.85	2,498.21
		12.13 13:45:00	0:15:00		1,261.41	315.35	10,711.42	2,677.85
		12.13 14:00:00	0:15:00		1,630.01	407.50	11,066.85	2,766.71
		12.13 14:15:00	0:15:00		2,080.15	520.04	11,575.39	2,893.85
		12.13 14:30:00	0:15:00		2,562.09	640.52	11,700.66	2,925.17
		12.13 14:45:00	0:15:00		3,233.19	808.30	10,918.71	2,729.68
12.13 15:00:00	0:15:00		4,090.94	1,022.74	10,137.75	2,534.44		
12.13 15:15:00	0:15:00		4,697.41	1,174.35	9,646.86	2,411.72		
12.13 15:30:00	0:15:00		5,249.20	1,312.30	9,119.43	2,279.86		
12.13 15:45:00	0:10:48		5,754.02	1,035.72	8,614.62	1,550.63		
12.13 15:52:11	0:03:36		6,148.47	368.91	8,220.16	493.21		
20-Dec	No Mirror	12.20 08:19:48	0:04:48		4,786.89	382.95	2,396.55	191.72
		12.20 08:30:00	0:12:36		1,625.04	341.26	5,071.74	1,065.06
		12.20 08:45:00	0:15:00		0.00	0.00	6,927.19	1,731.80
		12.20 09:00:00	0:15:00		0.00	0.00	7,297.28	1,824.32
		12.20 09:15:00	0:15:00		0.00	0.00	7,522.72	1,880.68
		12.20 09:30:00	0:15:00		0.00	0.00	7,529.68	1,882.42
		12.20 09:45:00	0:15:00		0.00	0.00	7,538.88	1,884.72

Quantitative Shadow Results - Impact Times

1979 Mission Street - ALTERNATIVE C RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School Playground

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		12.20 10:00:00	0:15:00		0.00	0.00	7,447.66	1,861.92
		12.20 10:15:00	0:15:00		0.00	0.00	7,298.78	1,824.69
		12.20 10:30:00	0:15:00		0.00	0.00	7,093.72	1,773.43
		12.20 10:45:00	0:15:00		0.00	0.00	7,026.36	1,756.59
		12.20 11:00:00	0:15:00		0.00	0.00	7,017.66	1,754.42
		12.20 11:15:00	0:15:00		0.00	0.00	7,106.40	1,776.60
		12.20 11:30:00	0:15:00		0.00	0.00	7,148.90	1,787.22
		12.20 11:45:00	0:15:00		0.00	0.00	7,286.35	1,821.59
		12.20 12:00:00	0:15:00		0.00	0.00	7,343.52	1,835.88
		12.20 12:15:00	0:15:00		0.00	0.00	7,435.73	1,858.93
		12.20 12:30:00	0:15:00		0.25	0.06	7,465.56	1,866.39
		12.20 12:45:00	0:15:00		122.04	30.51	7,588.09	1,897.02
		12.20 13:00:00	0:15:00		339.77	84.94	8,296.97	2,074.24
		12.20 13:15:00	0:15:00		593.05	148.26	9,101.04	2,275.26
		12.20 13:30:00	0:15:00		873.42	218.35	9,880.50	2,470.13
		12.20 13:45:00	0:15:00		1,198.53	299.63	10,678.36	2,669.59
		12.20 14:00:00	0:15:00		1,565.39	391.35	11,024.35	2,756.09
		12.20 14:15:00	0:15:00		2,002.60	500.65	11,482.43	2,870.61
		12.20 14:30:00	0:15:00		2,476.09	619.02	11,838.61	2,959.65
		12.20 14:45:00	0:15:00		3,103.44	775.86	11,063.12	2,765.78
		12.20 15:00:00	0:15:00		3,932.12	983.03	10,290.86	2,572.72
		12.20 15:15:00	0:15:00		4,582.83	1,145.71	9,751.75	2,437.94
		12.20 15:30:00	0:15:00		5,128.16	1,282.04	9,240.48	2,310.12
		12.20 15:45:00	0:12:36		5,593.20	1,174.57	8,775.43	1,842.84
		12.20 15:54:36	0:04:48	7:34:48	6,101.49	488.12	8,267.14	661.37
								62,941.73
			234:59:24				3,440,948.07	829,767.86



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	06.21 06:46:48	0:06:36	3718.113	408.992	0	0	10650.52	1171.557
172	06.21 07:00:00	0:13:48	2018.255	464.199	0	0	12350.378	2840.587
172	06.21 07:15:00	0:15:00	753.863	188.466	0	0	13614.77	3403.693
172	06.21 07:30:00	0:15:00	332.813	83.203	0	0	14035.82	3508.955
172	06.21 07:45:00	0:15:00	221.213	55.303	0	0	14147.421	3536.855
172	06.21 08:00:00	0:15:00	163.3	40.825	0	0	14205.334	3551.333
172	06.21 08:15:00	0:15:00	111.352	27.838	0	0	14257.281	3564.32
172	06.21 08:30:00	0:15:00	68.104	17.026	0	0	14300.53	3575.132
172	06.21 08:45:00	0:15:00	39.023	9.756	0	0	14329.61	3582.403
172	06.21 09:00:00	0:15:00	15.659	3.915	0	0	14352.974	3588.244
172	06.21 09:15:00	0:15:00	6.462	1.616	3.231	0.808	14358.94	3589.735
172	06.21 09:30:00	0:15:00	4.474	1.118	90.473	22.618	14273.686	3568.421
172	06.21 09:45:00	0:15:00	3.231	0.808	184.675	46.169	14180.727	3545.182
172	06.21 10:00:00	0:15:00	1.491	0.373	260.733	65.183	14106.409	3526.602
172	06.21 10:15:00	0:15:00	0.994	0.249	332.813	83.203	14034.826	3508.706
172	06.21 10:30:00	0:15:00	0.746	0.186	385.507	96.377	13982.381	3495.595
172	06.21 10:45:00	0:15:00	0.497	0.124	441.928	110.482	13926.208	3481.552
172	06.21 11:00:00	0:15:00	0.497	0.124	480.703	120.176	13887.434	3471.858
172	06.21 11:15:00	0:15:00	0.249	0.062	530.91	132.728	13837.474	3459.369
172	06.21 11:30:00	0:15:00	0.249	0.062	557.009	139.252	13811.376	3452.844
172	06.21 11:45:00	0:15:00	0.249	0.062	598.02	149.505	13770.365	3442.591
172	06.21 12:00:00	0:15:00	0.249	0.062	608.708	152.177	13759.677	3439.919
172	06.21 12:15:00	0:15:00	0	0	641.268	160.317	13727.365	3431.841
172	06.21 12:30:00	0:15:00	0	0	638.037	159.509	13730.596	3432.649
172	06.21 12:45:00	0:15:00	0	0	666.869	166.717	13701.764	3425.441
172	06.21 13:00:00	0:15:00	0	0	650.465	162.616	13718.169	3429.542
172	06.21 13:15:00	0:15:00	0	0	670.1	167.525	13698.533	3424.633
172	06.21 13:30:00	0:15:00	0	0	651.956	162.989	13716.677	3429.169
172	06.21 13:45:00	0:15:00	0	0	669.106	167.277	13699.527	3424.882
172	06.21 14:00:00	0:15:00	0.249	0.062	636.546	159.136	13731.839	3432.96
172	06.21 14:15:00	0:15:00	0.249	0.062	636.297	159.074	13732.088	3433.022
172	06.21 14:30:00	0:15:00	23.364	5.841	589.321	147.33	13755.949	3438.987
172	06.21 14:45:00	0:15:00	112.595	28.149	563.471	140.868	13692.568	3423.142
172	06.21 15:00:00	0:15:00	207.045	51.761	498.847	124.712	13662.741	3415.685
172	06.21 15:15:00	0:15:00	301.993	75.498	446.402	111.601	13620.238	3405.06
172	06.21 15:30:00	0:15:00	404.397	101.099	361.148	90.287	13603.088	3400.772
172	06.21 15:45:00	0:15:00	511.275	127.819	278.629	69.657	13578.73	3394.683
172	06.21 16:00:00	0:15:00	621.881	155.47	178.959	44.74	13567.794	3391.948
172	06.21 16:15:00	0:15:00	739.944	184.986	65.867	16.467	13562.823	3390.706
172	06.21 16:30:00	0:15:00	866.458	216.614	0	0	13502.176	3375.544
172	06.21 16:45:00	0:15:00	1018.075	254.519	0	0	13350.558	3337.639
172	06.21 17:00:00	0:15:00	1203.248	300.812	0	0	13165.385	3291.346
172	06.21 17:15:00	0:15:00	1413.524	353.381	0	0	12955.109	3238.777
172	06.21 17:30:00	0:15:00	1663.818	415.954	0	0	12704.816	3176.204
172	06.21 17:45:00	0:15:00	1956.365	489.091	0	0	12412.268	3103.067
172	06.21 18:00:00	0:15:00	2335.658	583.914	0	0	12032.975	3008.244
172	06.21 18:15:00	0:15:00	3169.307	792.327	0	0	11199.327	2799.832
172	06.21 18:30:00	0:15:00	4326.572	1081.643	0	0	10042.061	2510.515
172	06.21 18:45:00	0:15:00	5798.009	1449.502	0	0	8570.624	2142.656
172	06.21 19:00:00	0:15:00	7494.387	1873.597	0	0	6874.246	1718.562
172	06.21 19:15:00	0:18:00	9421.92	2826.576	0	0	4946.713	1484.014
172	06.21 19:36:00	0:10:48	13376.656	2407.798	0	0	991.977	178.556
179	06.28 06:48:35	0:06:00	3725.818	372.582	0	0	10642.815	1064.282
179	06.28 07:00:00	0:13:12	2233.751	491.425	0	0	12134.882	2669.674
179	06.28 07:15:00	0:15:00	881.868	220.467	0	0	13486.765	3371.691
179	06.28 07:30:00	0:15:00	346.484	86.621	0	0	14022.15	3505.537
179	06.28 07:45:00	0:15:00	226.184	56.546	0	0	14142.45	3535.612



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
179	06.28 08:00:00	0:15:00	166.531	41.633	0	0	14202.102	3550.526
179	06.28 08:15:00	0:15:00	116.82	29.205	0	0	14251.813	3562.953
179	06.28 08:30:00	0:15:00	69.595	17.399	0	0	14299.038	3574.76
179	06.28 08:45:00	0:15:00	40.017	10.004	0	0	14328.616	3582.154
179	06.28 09:00:00	0:15:00	16.156	4.039	0	0	14352.477	3588.119
179	06.28 09:15:00	0:15:00	6.214	1.553	2.486	0.621	14359.934	3589.983
179	06.28 09:30:00	0:15:00	4.723	1.181	91.219	22.805	14272.692	3568.173
179	06.28 09:45:00	0:15:00	3.48	0.87	186.167	46.542	14178.987	3544.747
179	06.28 10:00:00	0:15:00	1.74	0.435	262.97	65.742	14103.924	3525.981
179	06.28 10:15:00	0:15:00	0.994	0.249	335.299	83.825	14032.34	3508.085
179	06.28 10:30:00	0:15:00	0.746	0.186	388.986	97.247	13978.901	3494.725
179	06.28 10:45:00	0:15:00	0.497	0.124	445.657	111.414	13922.48	3480.62
179	06.28 11:00:00	0:15:00	0.497	0.124	484.928	121.232	13883.208	3470.802
179	06.28 11:15:00	0:15:00	0.249	0.062	534.887	133.722	13833.497	3458.374
179	06.28 11:30:00	0:15:00	0.249	0.062	562.228	140.557	13806.157	3451.539
179	06.28 11:45:00	0:15:00	0.249	0.062	603.24	150.81	13765.145	3441.286
179	06.28 12:00:00	0:15:00	0.249	0.062	615.916	153.979	13752.469	3438.117
179	06.28 12:15:00	0:15:00	0	0	649.719	162.43	13718.914	3429.729
179	06.28 12:30:00	0:15:00	0	0	647.233	161.808	13721.4	3430.35
179	06.28 12:45:00	0:15:00	0	0	674.077	168.519	13694.556	3423.639
179	06.28 13:00:00	0:15:00	0	0	659.661	164.915	13708.972	3427.243
179	06.28 13:15:00	0:15:00	0	0	676.811	169.203	13691.822	3422.955
179	06.28 13:30:00	0:15:00	0	0	661.152	165.288	13707.481	3426.87
179	06.28 13:45:00	0:15:00	0	0	679.545	169.886	13689.088	3422.272
179	06.28 14:00:00	0:15:00	0.249	0.062	646.985	161.746	13721.4	3430.35
179	06.28 14:15:00	0:15:00	0.249	0.062	647.482	161.871	13720.903	3430.226
179	06.28 14:30:00	0:15:00	17.15	4.288	602.245	150.561	13749.238	3437.309
179	06.28 14:45:00	0:15:00	105.635	26.409	577.39	144.347	13685.608	3421.402
179	06.28 15:00:00	0:15:00	196.606	49.151	514.754	128.689	13657.273	3414.318
179	06.28 15:15:00	0:15:00	292.796	73.199	464.547	116.137	13611.291	3402.823
179	06.28 15:30:00	0:15:00	395.697	98.924	381.53	95.382	13591.406	3397.852
179	06.28 15:45:00	0:15:00	501.83	125.457	300.998	75.25	13565.805	3391.451
179	06.28 16:00:00	0:15:00	616.661	154.165	201.577	50.394	13550.395	3387.599
179	06.28 16:15:00	0:15:00	731.493	182.873	91.468	22.867	13545.672	3386.418
179	06.28 16:30:00	0:15:00	854.527	213.632	0	0	13514.106	3378.527
179	06.28 16:45:00	0:15:00	1003.411	250.853	0	0	13365.223	3341.306
179	06.28 17:00:00	0:15:00	1190.323	297.581	0	0	13178.31	3294.578
179	06.28 17:15:00	0:15:00	1394.634	348.659	0	0	12973.999	3243.5
179	06.28 17:30:00	0:15:00	1636.725	409.181	0	0	12731.908	3182.977
179	06.28 17:45:00	0:15:00	1930.018	482.505	0	0	12438.615	3109.654
179	06.28 18:00:00	0:15:00	2308.317	577.079	0	0	12060.316	3015.079
179	06.28 18:15:00	0:15:00	3099.463	774.866	0	0	11269.17	2817.293
179	06.28 18:30:00	0:15:00	4215.717	1053.929	0	0	10152.916	2538.229
179	06.28 18:45:00	0:15:00	5684.917	1421.229	0	0	8683.716	2170.929
179	06.28 19:00:00	0:15:00	7409.133	1852.283	0	0	6959.5	1739.875
179	06.28 19:15:00	0:18:00	9280.245	2784.073	0	0	5088.389	1526.517
179	06.28 19:36:36	0:10:48	13382.87	2408.917	0	0	985.763	177.437
186	07.05 06:52:12	0:03:36	3681.327	220.88	0	0	10687.306	641.238
186	07.05 07:00:00	0:11:24	2524.31	479.619	0	0	11844.323	2250.421
186	07.05 07:15:00	0:15:00	1080.711	270.178	0	0	13287.922	3321.981
186	07.05 07:30:00	0:15:00	353.94	88.485	0	0	14014.693	3503.673
186	07.05 07:45:00	0:15:00	227.427	56.857	0	0	14141.207	3535.302
186	07.05 08:00:00	0:15:00	166.282	41.571	0	0	14202.351	3550.588
186	07.05 08:15:00	0:15:00	112.843	28.211	0	0	14255.79	3563.947
186	07.05 08:30:00	0:15:00	67.358	16.84	0	0	14301.275	3575.319
186	07.05 08:45:00	0:15:00	37.283	9.321	0	0	14331.35	3582.838
186	07.05 09:00:00	0:15:00	13.173	3.293	0	0	14355.46	3588.865



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
186	07.05 09:15:00	0:15:00	5.468	1.367	10.936	2.734	14352.229	3588.057
186	07.05 09:30:00	0:15:00	4.971	1.243	107.375	26.844	14256.287	3564.072
186	07.05 09:45:00	0:15:00	2.734	0.684	209.282	52.321	14156.617	3539.154
186	07.05 10:00:00	0:15:00	1.74	0.435	286.334	71.583	14080.56	3520.14
186	07.05 10:15:00	0:15:00	0.746	0.186	359.657	89.914	14008.231	3502.058
186	07.05 10:30:00	0:15:00	0.746	0.186	413.345	103.336	13954.543	3488.636
186	07.05 10:45:00	0:15:00	0.497	0.124	471.258	117.814	13896.879	3474.22
186	07.05 11:00:00	0:15:00	0.497	0.124	512.269	128.067	13855.867	3463.967
186	07.05 11:15:00	0:15:00	0.249	0.062	559.246	139.811	13809.139	3452.285
186	07.05 11:30:00	0:15:00	0.249	0.062	588.575	147.144	13779.81	3444.952
186	07.05 11:45:00	0:15:00	0.249	0.062	629.338	157.334	13739.047	3434.762
186	07.05 12:00:00	0:15:00	0.249	0.062	640.274	160.068	13728.111	3432.028
186	07.05 12:15:00	0:15:00	0	0	674.326	168.581	13694.307	3423.577
186	07.05 12:30:00	0:15:00	0	0	673.58	168.395	13695.053	3423.763
186	07.05 12:45:00	0:15:00	0	0	701.17	175.292	13667.464	3416.866
186	07.05 13:00:00	0:15:00	0	0	685.759	171.44	13682.874	3420.718
186	07.05 13:15:00	0:15:00	0	0	704.898	176.224	13663.735	3415.934
186	07.05 13:30:00	0:15:00	0	0	690.482	172.62	13678.151	3419.538
186	07.05 13:45:00	0:15:00	0	0	708.378	177.094	13660.256	3415.064
186	07.05 14:00:00	0:15:00	0.249	0.062	679.794	169.949	13688.591	3422.148
186	07.05 14:15:00	0:15:00	0.249	0.062	682.031	170.508	13686.354	3421.588
186	07.05 14:30:00	0:15:00	12.925	3.231	638.037	159.509	13717.671	3429.418
186	07.05 14:45:00	0:15:00	99.421	24.855	615.667	153.917	13653.545	3413.386
186	07.05 15:00:00	0:15:00	195.86	48.965	553.28	138.32	13619.493	3404.873
186	07.05 15:15:00	0:15:00	293.045	73.261	505.558	126.389	13570.031	3392.508
186	07.05 15:30:00	0:15:00	393.957	98.489	423.784	105.946	13550.892	3387.723
186	07.05 15:45:00	0:15:00	500.835	125.209	345.987	86.497	13521.811	3380.453
186	07.05 16:00:00	0:15:00	613.182	153.295	250.791	62.698	13504.661	3376.165
186	07.05 16:15:00	0:15:00	732.736	183.184	145.155	36.289	13490.742	3372.686
186	07.05 16:30:00	0:15:00	857.261	214.315	13.67	3.418	13497.702	3374.425
186	07.05 16:45:00	0:15:00	995.457	248.864	0	0	13373.176	3343.294
186	07.05 17:00:00	0:15:00	1177.647	294.412	0	0	13190.986	3297.747
186	07.05 17:15:00	0:15:00	1388.669	347.167	0	0	12979.965	3244.991
186	07.05 17:30:00	0:15:00	1627.529	406.882	0	0	12741.105	3185.276
186	07.05 17:45:00	0:15:00	1921.816	480.454	0	0	12446.817	3111.704
186	07.05 18:00:00	0:15:00	2300.363	575.091	0	0	12068.27	3017.068
186	07.05 18:15:00	0:15:00	3107.417	776.854	0	0	11261.217	2815.304
186	07.05 18:30:00	0:15:00	4238.833	1059.708	0	0	10129.801	2532.45
186	07.05 18:45:00	0:15:00	5706.541	1426.635	0	0	8662.092	2165.523
186	07.05 19:00:00	0:15:00	7446.168	1861.542	0	0	6922.465	1730.616
186	07.05 19:15:00	0:18:00	9349.84	2804.952	0	0	5018.794	1505.638
186	07.05 19:36:00	0:10:48	13365.72	2405.83	0	0	1002.914	180.524
193	07.12 06:56:24	0:01:48	3567.986	107.04	0	0	10800.647	324.019
193	07.12 07:00:00	0:09:00	3021.417	453.213	0	0	11347.216	1702.082
193	07.12 07:15:00	0:15:00	1349.894	337.474	0	0	13018.739	3254.685
193	07.12 07:30:00	0:15:00	385.755	96.439	0	0	13982.878	3495.72
193	07.12 07:45:00	0:15:00	224.195	56.049	0	0	14144.438	3536.109
193	07.12 08:00:00	0:15:00	161.063	40.266	0	0	14207.571	3551.893
193	07.12 08:15:00	0:15:00	101.41	25.352	0	0	14267.223	3566.806
193	07.12 08:30:00	0:15:00	60.896	15.224	0	0	14307.738	3576.934
193	07.12 08:45:00	0:15:00	30.572	7.643	0	0	14338.061	3584.515
193	07.12 09:00:00	0:15:00	7.208	1.802	0	0	14361.425	3590.356
193	07.12 09:15:00	0:15:00	5.717	1.429	49.959	12.49	14312.957	3578.239
193	07.12 09:30:00	0:15:00	4.971	1.243	154.6	38.65	14209.062	3552.265
193	07.12 09:45:00	0:15:00	1.988	0.497	255.513	63.878	14111.132	3527.783
193	07.12 10:00:00	0:15:00	0.994	0.249	332.813	83.203	14034.826	3508.706
193	07.12 10:15:00	0:15:00	0.746	0.186	405.639	101.41	13962.248	3490.562



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
193	07.12 10:30:00	0:15:00	0.497	0.124	457.836	114.459	13910.301	3477.575
193	07.12 10:45:00	0:15:00	0.497	0.124	516.743	129.186	13851.393	3462.848
193	07.12 11:00:00	0:15:00	0.249	0.062	555.517	138.879	13812.868	3453.217
193	07.12 11:15:00	0:15:00	0.249	0.062	603.24	150.81	13765.145	3441.286
193	07.12 11:30:00	0:15:00	0.249	0.062	632.072	158.018	13736.313	3434.078
193	07.12 11:45:00	0:15:00	0.249	0.062	673.332	168.333	13695.053	3423.763
193	07.12 12:00:00	0:15:00	0.249	0.062	684.517	171.129	13683.868	3420.967
193	07.12 12:15:00	0:15:00	0	0	719.563	179.891	13649.071	3412.268
193	07.12 12:30:00	0:15:00	0	0	719.065	179.766	13649.568	3412.392
193	07.12 12:45:00	0:15:00	0	0	745.164	186.291	13623.47	3405.867
193	07.12 13:00:00	0:15:00	0	0	730.747	182.687	13637.886	3409.471
193	07.12 13:15:00	0:15:00	0	0	753.863	188.466	13614.77	3403.693
193	07.12 13:30:00	0:15:00	0	0	737.707	184.427	13630.926	3407.732
193	07.12 13:45:00	0:15:00	0	0	758.337	189.584	13610.296	3402.574
193	07.12 14:00:00	0:15:00	0.249	0.062	731.742	182.935	13636.643	3409.161
193	07.12 14:15:00	0:15:00	0.249	0.062	736.216	184.054	13632.169	3408.042
193	07.12 14:30:00	0:15:00	11.185	2.796	694.21	173.553	13663.238	3415.81
193	07.12 14:45:00	0:15:00	98.676	24.669	675.569	168.892	13594.389	3398.597
193	07.12 15:00:00	0:15:00	193.623	48.406	615.17	153.793	13559.84	3389.96
193	07.12 15:15:00	0:15:00	292.796	73.199	568.442	142.111	13507.395	3376.849
193	07.12 15:30:00	0:15:00	397.189	99.297	489.153	122.288	13482.291	3370.573
193	07.12 15:45:00	0:15:00	503.57	125.892	414.836	103.709	13450.228	3362.557
193	07.12 16:00:00	0:15:00	617.904	154.476	325.108	81.277	13425.621	3356.405
193	07.12 16:15:00	0:15:00	742.678	185.67	225.935	56.484	13400.02	3350.005
193	07.12 16:30:00	0:15:00	869.44	217.36	83.265	20.816	13415.927	3353.982
193	07.12 16:45:00	0:15:00	1007.139	251.785	0	0	13361.494	3340.374
193	07.12 17:00:00	0:15:00	1177.398	294.35	0	0	13191.235	3297.809
193	07.12 17:15:00	0:15:00	1390.657	347.664	0	0	12977.976	3244.494
193	07.12 17:30:00	0:15:00	1638.714	409.678	0	0	12729.92	3182.48
193	07.12 17:45:00	0:15:00	1925.793	481.448	0	0	12442.84	3110.71
193	07.12 18:00:00	0:15:00	2330.935	582.734	0	0	12037.698	3009.424
193	07.12 18:15:00	0:15:00	3186.705	796.676	0	0	11181.928	2795.482
193	07.12 18:30:00	0:15:00	4351.924	1087.981	0	0	10016.709	2504.177
193	07.12 18:45:00	0:15:00	5854.679	1463.67	0	0	8513.954	2128.488
193	07.12 19:00:00	0:15:00	7685.028	1921.257	0	0	6683.605	1670.901
193	07.12 19:15:00	0:16:48	9695.578	2714.762	0	0	4673.056	1308.456
193	07.12 19:33:36	0:09:00	13306.564	1995.985	0	0	1062.069	159.31
200	07.19 07:01:11	0:07:48	3426.808	445.485	0	0	10941.825	1422.437
200	07.19 07:16:11	0:14:24	1577.57	378.617	0	0	12791.064	3069.855
200	07.19 07:30:00	0:14:24	515.749	123.78	0	0	13852.885	3324.692
200	07.19 07:45:00	0:15:00	215.496	53.874	0	0	14153.137	3538.284
200	07.19 08:00:00	0:15:00	151.121	37.78	0	0	14217.513	3554.378
200	07.19 08:15:00	0:15:00	87.491	21.873	0	0	14281.142	3570.286
200	07.19 08:30:00	0:15:00	49.711	12.428	0	0	14318.923	3579.731
200	07.19 08:45:00	0:15:00	19.139	4.785	0	0	14349.495	3587.374
200	07.19 09:00:00	0:15:00	6.959	1.74	5.468	1.367	14356.206	3589.051
200	07.19 09:15:00	0:15:00	5.468	1.367	128.254	32.063	14234.911	3558.728
200	07.19 09:30:00	0:15:00	2.983	0.746	235.132	58.783	14130.519	3532.63
200	07.19 09:45:00	0:15:00	1.74	0.435	332.565	83.141	14034.329	3508.582
200	07.19 10:00:00	0:15:00	0.994	0.249	405.639	101.41	13962	3490.5
200	07.19 10:15:00	0:15:00	0.746	0.186	475.483	118.871	13892.405	3473.101
200	07.19 10:30:00	0:15:00	0.497	0.124	526.188	131.547	13841.948	3460.487
200	07.19 10:45:00	0:15:00	0.497	0.124	579.875	144.969	13788.261	3447.065
200	07.19 11:00:00	0:15:00	0.249	0.062	616.91	154.227	13751.475	3437.869
200	07.19 11:15:00	0:15:00	0.249	0.062	667.366	166.842	13701.018	3425.255
200	07.19 11:30:00	0:15:00	0.249	0.062	694.707	173.677	13673.678	3418.419
200	07.19 11:45:00	0:15:00	0.249	0.062	735.221	183.805	13633.163	3408.291



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
200	07.19 12:00:00	0:15:00	0.249	0.062	748.892	187.223	13619.493	3404.873
200	07.19 12:15:00	0:15:00	0	0	780.707	195.177	13587.927	3396.982
200	07.19 12:30:00	0:15:00	0	0	780.955	195.239	13587.678	3396.919
200	07.19 12:45:00	0:15:00	0	0	808.793	202.198	13559.84	3389.96
200	07.19 13:00:00	0:15:00	0	0	796.863	199.216	13571.771	3392.943
200	07.19 13:15:00	0:15:00	0	0	816.996	204.249	13551.638	3387.909
200	07.19 13:30:00	0:15:00	0	0	805.811	201.453	13562.823	3390.706
200	07.19 13:45:00	0:15:00	0	0	825.446	206.362	13543.187	3385.797
200	07.19 14:00:00	0:15:00	0.249	0.062	804.319	201.08	13564.065	3391.016
200	07.19 14:15:00	0:15:00	0.249	0.062	808.296	202.074	13560.089	3390.022
200	07.19 14:30:00	0:15:00	15.41	3.853	772.007	193.002	13581.216	3395.304
200	07.19 14:45:00	0:15:00	105.138	26.285	753.366	188.341	13510.129	3377.532
200	07.19 15:00:00	0:15:00	202.074	50.519	694.707	173.677	13471.852	3367.963
200	07.19 15:15:00	0:15:00	301.744	75.436	653.944	163.486	13412.945	3353.236
200	07.19 15:30:00	0:15:00	406.137	101.534	574.656	143.664	13387.841	3346.96
200	07.19 15:45:00	0:15:00	519.974	129.994	505.558	126.389	13343.101	3335.775
200	07.19 16:00:00	0:15:00	636.546	159.136	425.027	106.257	13307.061	3326.765
200	07.19 16:15:00	0:15:00	758.834	189.709	333.062	83.265	13276.737	3319.184
200	07.19 16:30:00	0:15:00	892.556	223.139	195.86	48.965	13280.217	3320.054
200	07.19 16:45:00	0:15:00	1035.226	258.806	36.04	9.01	13297.367	3324.342
200	07.19 17:00:00	0:15:00	1192.311	298.078	0	0	13176.322	3294.08
200	07.19 17:15:00	0:15:00	1403.085	350.771	0	0	12965.548	3241.387
200	07.19 17:30:00	0:15:00	1658.101	414.525	0	0	12710.532	3177.633
200	07.19 17:45:00	0:15:00	1953.383	488.346	0	0	12415.251	3103.813
200	07.19 18:00:00	0:15:00	2430.357	607.589	0	0	11938.276	2984.569
200	07.19 18:15:00	0:15:00	3358.953	839.738	0	0	11009.68	2752.42
200	07.19 18:30:00	0:15:00	4573.883	1143.471	0	0	9794.751	2448.688
200	07.19 18:45:00	0:15:00	6171.834	1542.958	0	0	8196.8	2049.2
200	07.19 19:00:00	0:15:00	8161.008	2040.252	0	0	6207.625	1551.906
200	07.19 19:15:00	0:15:00	10331.378	2582.844	0	0	4037.256	1009.314
200	07.19 19:30:00	0:07:48	13260.084	1723.811	0	0	1108.549	144.111
207	07.26 07:07:12	0:03:36	3262.266	195.736	0	0	11106.368	666.382
207	07.26 07:15:00	0:11:24	2157.445	409.915	0	0	12211.188	2320.126
207	07.26 07:30:00	0:15:00	765.794	191.448	0	0	13602.84	3400.71
207	07.26 07:45:00	0:15:00	199.837	49.959	0	0	14168.796	3542.199
207	07.26 08:00:00	0:15:00	134.219	33.555	0	0	14234.414	3558.604
207	07.26 08:15:00	0:15:00	70.341	17.585	0	0	14298.293	3574.573
207	07.26 08:30:00	0:15:00	33.306	8.327	0	0	14335.327	3583.832
207	07.26 08:45:00	0:15:00	7.208	1.802	0	0	14361.425	3590.356
207	07.26 09:00:00	0:15:00	5.22	1.305	94.947	23.737	14268.466	3567.117
207	07.26 09:15:00	0:15:00	4.723	1.181	231.9	57.975	14132.01	3533.003
207	07.26 09:30:00	0:15:00	1.988	0.497	338.033	84.508	14028.612	3507.153
207	07.26 09:45:00	0:15:00	0.994	0.249	432.732	108.183	13934.907	3483.727
207	07.26 10:00:00	0:15:00	0.746	0.186	501.333	125.333	13866.555	3466.639
207	07.26 10:15:00	0:15:00	0.497	0.124	567.945	141.986	13800.191	3450.048
207	07.26 10:30:00	0:15:00	0.497	0.124	616.413	154.103	13751.723	3437.931
207	07.26 10:45:00	0:15:00	0.249	0.062	667.118	166.779	13701.267	3425.317
207	07.26 11:00:00	0:15:00	0.249	0.062	702.164	175.541	13666.221	3416.555
207	07.26 11:15:00	0:15:00	0.249	0.062	748.395	187.099	13619.99	3404.997
207	07.26 11:30:00	0:15:00	0.249	0.062	776.233	194.058	13592.152	3398.038
207	07.26 11:45:00	0:15:00	0.249	0.062	819.73	204.932	13548.655	3387.164
207	07.26 12:00:00	0:15:00	0	0	831.412	207.853	13537.222	3384.305
207	07.26 12:15:00	0:15:00	0	0	865.712	216.428	13502.921	3375.73
207	07.26 12:30:00	0:15:00	0	0	865.464	216.366	13503.17	3375.792
207	07.26 12:45:00	0:15:00	0	0	893.55	223.388	13475.083	3368.771
207	07.26 13:00:00	0:15:00	0	0	881.62	220.405	13487.014	3371.753
207	07.26 13:15:00	0:15:00	0	0	901.752	225.438	13466.881	3366.72



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
207	07.26 13:30:00	0:15:00	0	0	893.302	223.325	13475.332	3368.833
207	07.26 13:45:00	0:15:00	0	0	915.92	228.98	13452.713	3363.178
207	07.26 14:00:00	0:15:00	0.249	0.062	895.041	223.76	13473.343	3368.336
207	07.26 14:15:00	0:15:00	0.249	0.062	905.978	226.494	13462.407	3365.602
207	07.26 14:30:00	0:15:00	22.618	5.655	869.192	217.298	13476.823	3369.206
207	07.26 14:45:00	0:15:00	115.826	28.956	858.007	214.502	13394.8	3348.7
207	07.26 15:00:00	0:15:00	213.259	53.315	807.302	201.825	13348.072	3337.018
207	07.26 15:15:00	0:15:00	315.166	78.791	767.782	191.945	13285.685	3321.421
207	07.26 15:30:00	0:15:00	425.027	106.257	686.505	171.626	13257.102	3314.275
207	07.26 15:45:00	0:15:00	537.87	134.467	623.621	155.905	13207.142	3301.786
207	07.26 16:00:00	0:15:00	661.152	165.288	552.286	138.072	13155.195	3288.799
207	07.26 16:15:00	0:15:00	790.897	197.724	471.755	117.939	13105.981	3276.495
207	07.26 16:30:00	0:15:00	929.59	232.398	341.264	85.316	13097.779	3274.445
207	07.26 16:45:00	0:15:00	1077.728	269.432	188.155	47.039	13102.75	3275.687
207	07.26 17:00:00	0:15:00	1238.294	309.573	8.202	2.051	13122.137	3280.534
207	07.26 17:15:00	0:15:00	1436.64	359.16	0	0	12931.994	3232.998
207	07.26 17:30:00	0:15:00	1701.598	425.399	0	0	12667.036	3166.759
207	07.26 17:45:00	0:15:00	2007.07	501.768	0	0	12361.563	3090.391
207	07.26 18:00:00	0:15:00	2618.76	654.69	0	0	11749.873	2937.468
207	07.26 18:15:00	0:15:00	3614.466	903.617	0	0	10754.167	2688.542
207	07.26 18:30:00	0:15:00	4925.835	1231.459	0	0	9442.799	2360.7
207	07.26 18:45:00	0:15:00	6663.97	1665.992	0	0	7704.664	1926.166
207	07.26 19:00:00	0:15:00	8935.252	2233.813	0	0	5433.381	1358.345
207	07.26 19:15:00	0:12:36	11268.425	2366.369	0	0	3100.209	651.044
207	07.26 19:25:12	0:05:24	13219.819	1189.784	0	0	1148.815	103.393
214	08.02 07:12:36	0:01:12	3025.643	60.513	0	0	11342.991	226.86
214	08.02 07:15:00	0:09:00	2678.413	401.762	0	0	11690.22	1753.533
214	08.02 07:30:00	0:15:00	1088.665	272.166	0	0	13279.969	3319.992
214	08.02 07:45:00	0:15:00	203.814	50.953	0	0	14164.819	3541.205
214	08.02 08:00:00	0:15:00	97.682	24.42	0	0	14270.952	3567.738
214	08.02 08:15:00	0:15:00	46.977	11.744	0	0	14321.657	3580.414
214	08.02 08:30:00	0:15:00	11.185	2.796	0	0	14357.448	3589.362
214	08.02 08:45:00	0:15:00	5.717	1.429	77.052	19.263	14285.865	3571.466
214	08.02 09:00:00	0:15:00	5.468	1.367	238.86	59.715	14124.305	3531.076
214	08.02 09:15:00	0:15:00	1.988	0.497	373.079	93.27	13993.566	3498.391
214	08.02 09:30:00	0:15:00	1.243	0.311	472.252	118.063	13895.139	3473.785
214	08.02 09:45:00	0:15:00	0.746	0.186	562.725	140.681	13805.162	3451.291
214	08.02 10:00:00	0:15:00	0.497	0.124	625.361	156.34	13742.775	3435.694
214	08.02 10:15:00	0:15:00	0.497	0.124	687.251	171.813	13680.886	3420.221
214	08.02 10:30:00	0:15:00	0.497	0.124	726.274	181.568	13641.863	3410.466
214	08.02 10:45:00	0:15:00	0.249	0.062	780.707	195.177	13587.678	3396.919
214	08.02 11:00:00	0:15:00	0.249	0.062	813.267	203.317	13555.117	3388.779
214	08.02 11:15:00	0:15:00	0.249	0.062	860.99	215.247	13507.395	3376.849
214	08.02 11:30:00	0:15:00	0.249	0.062	885.099	221.275	13483.285	3370.821
214	08.02 11:45:00	0:15:00	0.249	0.062	925.365	231.341	13443.02	3360.755
214	08.02 12:00:00	0:15:00	0	0	937.047	234.262	13431.586	3357.897
214	08.02 12:15:00	0:15:00	0	0	969.607	242.402	13399.026	3349.756
214	08.02 12:30:00	0:15:00	0	0	968.365	242.091	13400.269	3350.067
214	08.02 12:45:00	0:15:00	0	0	994.463	248.616	13374.17	3343.543
214	08.02 13:00:00	0:15:00	0	0	984.272	246.068	13384.361	3346.09
214	08.02 13:15:00	0:15:00	0	0	1004.654	251.163	13363.98	3340.995
214	08.02 13:30:00	0:15:00	0	0	1001.671	250.418	13366.962	3341.741
214	08.02 13:45:00	0:15:00	0	0	1025.035	256.259	13343.598	3335.9
214	08.02 14:00:00	0:15:00	0.249	0.062	1009.127	252.282	13359.257	3339.814
214	08.02 14:15:00	0:15:00	0.249	0.062	1021.804	255.451	13346.581	3336.645
214	08.02 14:30:00	0:15:00	34.3	8.575	989.243	247.311	13345.09	3336.272
214	08.02 14:45:00	0:15:00	131.485	32.871	989.74	247.435	13247.408	3311.852



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
214	08.02 15:00:00	0:15:00	232.895	58.224	952.209	238.052	13183.53	3295.882
214	08.02 15:15:00	0:15:00	339.773	84.943	921.885	230.471	13106.975	3276.744
214	08.02 15:30:00	0:15:00	452.616	113.154	844.088	211.022	13071.929	3267.982
214	08.02 15:45:00	0:15:00	574.407	143.602	784.435	196.109	13009.791	3252.448
214	08.02 16:00:00	0:15:00	698.684	174.671	707.881	176.97	12962.069	3240.517
214	08.02 16:15:00	0:15:00	836.134	209.034	636.794	159.199	12895.705	3223.926
214	08.02 16:30:00	0:15:00	979.053	244.763	517.986	129.496	12871.595	3217.899
214	08.02 16:45:00	0:15:00	1137.133	284.283	374.322	93.58	12857.179	3214.295
214	08.02 17:00:00	0:15:00	1310.872	327.718	171.253	42.813	12886.508	3221.627
214	08.02 17:15:00	0:15:00	1495.298	373.825	0	0	12873.335	3218.334
214	08.02 17:30:00	0:15:00	1753.545	438.386	0	0	12615.088	3153.772
214	08.02 17:45:00	0:15:00	2117.925	529.481	0	0	12250.708	3062.677
214	08.02 18:00:00	0:15:00	2901.863	725.466	0	0	11466.77	2866.693
214	08.02 18:15:00	0:15:00	3987.793	996.948	0	0	10380.84	2595.21
214	08.02 18:30:00	0:15:00	5418.716	1354.679	0	0	8949.917	2237.479
214	08.02 18:45:00	0:15:00	7397.948	1849.487	0	0	6970.685	1742.671
214	08.02 19:00:00	0:15:00	9886.715	2471.679	0	0	4481.918	1120.479
214	08.02 19:15:00	0:09:00	12557.672	1883.651	0	0	1810.961	271.644
214	08.02 19:18:36	0:01:48	13146.744	394.402	0	0	1221.889	36.657
221	08.09 07:19:12	0:05:24	2811.638	253.047	0	0	11556.995	1040.13
221	08.09 07:30:00	0:12:36	1479.391	310.672	0	0	12889.242	2706.741
221	08.09 07:45:00	0:15:00	359.657	89.914	0	0	14008.976	3502.244
221	08.09 08:00:00	0:15:00	64.375	16.094	0	0	14304.258	3576.064
221	08.09 08:15:00	0:15:00	17.15	4.288	0	0	14351.483	3587.871
221	08.09 08:30:00	0:15:00	5.965	1.491	67.109	16.777	14295.559	3573.89
221	08.09 08:45:00	0:15:00	5.22	1.305	258.247	64.562	14105.167	3526.292
221	08.09 09:00:00	0:15:00	2.237	0.559	427.015	106.754	13939.381	3484.845
221	08.09 09:15:00	0:15:00	1.243	0.311	548.806	137.202	13818.584	3454.646
221	08.09 09:30:00	0:15:00	0.994	0.249	640.274	160.068	13727.365	3431.841
221	08.09 09:45:00	0:15:00	0.746	0.186	717.077	179.269	13650.811	3412.703
221	08.09 10:00:00	0:15:00	0.497	0.124	773.499	193.375	13594.637	3398.659
221	08.09 10:15:00	0:15:00	0.497	0.124	833.4	208.35	13534.736	3383.684
221	08.09 10:30:00	0:15:00	0.249	0.062	873.417	218.354	13494.967	3373.742
221	08.09 10:45:00	0:15:00	0.249	0.062	924.371	231.093	13444.014	3361.004
221	08.09 11:00:00	0:15:00	0.249	0.062	948.729	237.182	13419.656	3354.914
221	08.09 11:15:00	0:15:00	0.249	0.062	993.966	248.491	13374.419	3343.605
221	08.09 11:30:00	0:15:00	0.249	0.062	1012.359	253.09	13356.026	3339.007
221	08.09 11:45:00	0:15:00	0	0	1053.37	263.343	13315.263	3328.816
221	08.09 12:00:00	0:15:00	0	0	1060.33	265.082	13308.304	3327.076
221	08.09 12:15:00	0:15:00	0	0	1093.139	273.285	13275.495	3318.874
221	08.09 12:30:00	0:15:00	0	0	1091.399	272.85	13277.235	3319.309
221	08.09 12:45:00	0:15:00	0	0	1112.774	278.194	13255.859	3313.965
221	08.09 13:00:00	0:15:00	0	0	1103.081	275.77	13265.553	3316.388
221	08.09 13:15:00	0:15:00	0	0	1128.93	282.233	13239.703	3309.926
221	08.09 13:30:00	0:15:00	0	0	1126.196	281.549	13242.437	3310.609
221	08.09 13:45:00	0:15:00	0	0	1154.78	288.695	13213.853	3303.463
221	08.09 14:00:00	0:15:00	0.249	0.062	1145.335	286.334	13223.05	3305.762
221	08.09 14:15:00	0:15:00	0.249	0.062	1163.231	290.808	13205.154	3301.289
221	08.09 14:30:00	0:15:00	52.445	13.111	1130.422	282.605	13185.767	3296.442
221	08.09 14:45:00	0:15:00	154.352	38.588	1153.289	288.322	13060.993	3265.248
221	08.09 15:00:00	0:15:00	260.733	65.183	1132.659	283.165	12975.242	3243.81
221	08.09 15:15:00	0:15:00	370.345	92.586	1118.74	279.685	12879.549	3219.887
221	08.09 15:30:00	0:15:00	489.899	122.475	1046.411	261.603	12832.324	3208.081
221	08.09 15:45:00	0:15:00	617.159	154.29	998.688	249.672	12752.787	3188.197
221	08.09 16:00:00	0:15:00	748.146	187.037	911.694	227.924	12708.793	3177.198
221	08.09 16:15:00	0:15:00	891.562	222.89	838.868	209.717	12638.203	3159.551
221	08.09 16:30:00	0:15:00	1048.15	262.038	728.013	182.003	12592.469	3148.117



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
221	08.09 16:45:00	0:15:00	1214.681	303.67	599.263	149.816	12554.689	3138.672
221	08.09 17:00:00	0:15:00	1398.859	349.715	406.882	101.721	12562.892	3140.723
221	08.09 17:15:00	0:15:00	1604.91	401.228	168.519	42.13	12595.204	3148.801
221	08.09 17:30:00	0:15:00	1832.088	458.022	0	0	12536.545	3134.136
221	08.09 17:45:00	0:15:00	2360.762	590.19	0	0	12007.871	3001.968
221	08.09 18:00:00	0:15:00	3281.404	820.351	0	0	11087.229	2771.807
221	08.09 18:15:00	0:15:00	4489.126	1122.282	0	0	9879.507	2469.877
221	08.09 18:30:00	0:15:00	6104.724	1526.181	0	0	8263.909	2065.977
221	08.09 18:45:00	0:20:24	8410.307	2859.504	0	0	5958.326	2025.831
221	08.09 19:10:48	0:12:36	13303.83	2793.804	0	0	1064.803	223.609
228	08.16 07:25:12	0:02:24	2542.454	101.698	0	0	11826.179	473.047
228	08.16 07:30:00	0:10:12	1977.244	336.131	0	0	12391.39	2106.536
228	08.16 07:45:00	0:15:00	642.262	160.566	0	0	13726.371	3431.593
228	08.16 08:00:00	0:15:00	23.861	5.965	0	0	14344.772	3586.193
228	08.16 08:15:00	0:15:00	6.214	1.553	79.786	19.946	14282.634	3570.658
228	08.16 08:30:00	0:15:00	4.971	1.243	286.085	71.521	14077.577	3519.394
228	08.16 08:45:00	0:15:00	2.486	0.621	478.217	119.554	13887.931	3471.983
228	08.16 09:00:00	0:15:00	1.243	0.311	638.783	159.696	13728.608	3432.152
228	08.16 09:15:00	0:15:00	0.994	0.249	758.585	189.646	13609.054	3402.263
228	08.16 09:30:00	0:15:00	0.746	0.186	835.886	208.971	13532.002	3383
228	08.16 09:45:00	0:15:00	0.497	0.124	904.486	226.122	13463.65	3365.912
228	08.16 10:00:00	0:15:00	0.497	0.124	957.18	239.295	13410.956	3352.739
228	08.16 10:15:00	0:15:00	0.249	0.062	1018.821	254.705	13349.564	3337.391
228	08.16 10:30:00	0:15:00	0.249	0.062	1052.127	263.032	13316.257	3329.064
228	08.16 10:45:00	0:15:00	0.249	0.062	1090.405	272.601	13277.98	3319.495
228	08.16 11:00:00	0:15:00	0.249	0.062	1110.04	277.51	13258.344	3314.586
228	08.16 11:15:00	0:15:00	0.249	0.062	1145.832	286.458	13222.553	3305.638
228	08.16 11:30:00	0:15:00	0.249	0.062	1162.734	290.683	13205.651	3301.413
228	08.16 11:45:00	0:15:00	0	0	1198.028	299.507	13170.605	3292.651
228	08.16 12:00:00	0:15:00	0	0	1205.982	301.495	13162.651	3290.663
228	08.16 12:15:00	0:15:00	0	0	1233.82	308.455	13134.813	3283.703
228	08.16 12:30:00	0:15:00	0	0	1231.583	307.896	13137.05	3284.263
228	08.16 12:45:00	0:15:00	0	0	1251.964	312.991	13116.669	3279.167
228	08.16 13:00:00	0:15:00	0	0	1243.016	310.754	13125.617	3281.404
228	08.16 13:15:00	0:15:00	0	0	1267.126	316.782	13101.507	3275.377
228	08.16 13:30:00	0:15:00	0	0	1273.588	318.397	13095.045	3273.761
228	08.16 13:45:00	0:15:00	0	0	1306.646	326.662	13061.987	3265.497
228	08.16 14:00:00	0:15:00	0.249	0.062	1303.663	325.916	13064.721	3266.18
228	08.16 14:15:00	0:15:00	0.497	0.124	1322.056	330.514	13046.08	3261.52
228	08.16 14:30:00	0:15:00	77.3	19.325	1296.207	324.052	12995.126	3248.782
228	08.16 14:45:00	0:15:00	181.196	45.299	1353.374	338.344	12834.064	3208.516
228	08.16 15:00:00	0:15:00	290.311	72.578	1351.883	337.971	12726.44	3181.61
228	08.16 15:15:00	0:15:00	410.859	102.715	1370.027	342.507	12587.747	3146.937
228	08.16 15:30:00	0:15:00	535.881	133.97	1325.288	331.322	12507.464	3126.866
228	08.16 15:45:00	0:15:00	670.846	167.712	1290.242	322.56	12407.546	3101.886
228	08.16 16:00:00	0:15:00	809.539	202.385	1191.814	297.954	12367.28	3091.82
228	08.16 16:15:00	0:15:00	964.636	241.159	1098.11	274.527	12305.887	3076.472
228	08.16 16:30:00	0:15:00	1130.422	282.605	984.272	246.068	12253.94	3063.485
228	08.16 16:45:00	0:15:00	1315.843	328.961	871.429	217.857	12181.362	3045.34
228	08.16 17:00:00	0:15:00	1516.674	379.168	694.459	173.615	12157.501	3039.375
228	08.16 17:15:00	0:15:00	1741.863	435.466	468.772	117.193	12157.998	3039.499
228	08.16 17:30:00	0:15:00	2029.688	507.422	150.375	37.594	12188.57	3047.142
228	08.16 17:45:00	0:15:00	2722.159	680.54	0	0	11646.475	2911.619
228	08.16 18:00:00	0:15:00	3750.673	937.668	0	0	10617.96	2654.49
228	08.16 18:15:00	0:15:00	5119.209	1279.802	0	0	9249.424	2312.356
228	08.16 18:30:00	0:15:00	7010.702	1752.675	0	0	7357.931	1839.483
228	08.16 18:45:00	0:16:12	9675.445	2612.37	0	0	4693.188	1267.161



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
228	08.16 19:02:23	0:08:24	13244.177	1854.185	0	0	1124.456	157.424
235	08.23 07:31:48	0:06:36	2352.56	258.782	0	0	12016.074	1321.768
235	08.23 07:45:00	0:13:48	979.053	225.182	0	0	13389.581	3079.604
235	08.23 08:00:00	0:15:00	64.624	16.156	101.41	25.352	14202.6	3550.65
235	08.23 08:15:00	0:15:00	5.22	1.305	340.021	85.005	14023.392	3505.848
235	08.23 08:30:00	0:15:00	2.486	0.621	550.049	137.512	13816.099	3454.025
235	08.23 08:45:00	0:15:00	1.243	0.311	733.979	183.495	13633.412	3408.353
235	08.23 09:00:00	0:15:00	0.994	0.249	888.33	222.083	13479.309	3369.827
235	08.23 09:15:00	0:15:00	0.746	0.186	1006.145	251.536	13361.743	3340.436
235	08.23 09:30:00	0:15:00	0.497	0.124	1068.035	267.009	13300.101	3325.025
235	08.23 09:45:00	0:15:00	0.497	0.124	1133.901	283.475	13234.235	3308.559
235	08.23 10:00:00	0:15:00	0.249	0.062	1182.121	295.53	13186.264	3296.566
235	08.23 10:15:00	0:15:00	0.249	0.062	1232.08	308.02	13136.305	3284.076
235	08.23 10:30:00	0:15:00	0.249	0.062	1252.959	313.24	13115.426	3278.857
235	08.23 10:45:00	0:15:00	0.249	0.062	1280.051	320.013	13088.334	3272.083
235	08.23 11:00:00	0:15:00	0.249	0.062	1290.49	322.623	13077.895	3269.474
235	08.23 11:15:00	0:15:00	0.249	0.062	1320.317	330.079	13048.068	3262.017
235	08.23 11:30:00	0:15:00	0	0	1333.987	333.497	13034.646	3258.662
235	08.23 11:45:00	0:15:00	0	0	1365.553	341.388	13003.08	3250.77
235	08.23 12:00:00	0:15:00	0	0	1369.033	342.258	12999.6	3249.9
235	08.23 12:15:00	0:15:00	0	0	1392.894	348.224	12975.739	3243.935
235	08.23 12:30:00	0:15:00	0	0	1388.42	347.105	12980.213	3245.053
235	08.23 12:45:00	0:15:00	0	0	1408.802	352.2	12959.832	3239.958
235	08.23 13:00:00	0:15:00	0	0	1401.096	350.274	12967.537	3241.884
235	08.23 13:15:00	0:15:00	0	0	1431.669	357.917	12936.965	3234.241
235	08.23 13:30:00	0:15:00	0	0	1442.356	360.589	12926.277	3231.569
235	08.23 13:45:00	0:15:00	0	0	1481.131	370.283	12887.503	3221.876
235	08.23 14:00:00	0:15:00	0.249	0.062	1481.379	370.345	12887.005	3221.751
235	08.23 14:15:00	0:15:00	6.462	1.616	1504.743	376.186	12857.428	3214.357
235	08.23 14:30:00	0:15:00	109.861	27.465	1503.003	375.751	12755.769	3188.942
235	08.23 14:45:00	0:15:00	218.727	54.682	1590.494	397.624	12559.412	3139.853
235	08.23 15:00:00	0:15:00	336.79	84.198	1625.54	406.385	12406.303	3101.576
235	08.23 15:15:00	0:15:00	461.564	115.391	1670.529	417.632	12236.541	3059.135
235	08.23 15:30:00	0:15:00	593.546	148.386	1662.575	415.644	12112.513	3028.128
235	08.23 15:45:00	0:15:00	737.956	184.489	1658.101	414.525	11972.577	2993.144
235	08.23 16:00:00	0:15:00	889.822	222.455	1581.546	395.387	11897.265	2974.316
235	08.23 16:15:00	0:15:00	1057.347	264.337	1495.05	373.762	11816.237	2954.059
235	08.23 16:30:00	0:15:00	1237.797	309.449	1330.01	332.503	11800.826	2950.207
235	08.23 16:45:00	0:15:00	1442.605	360.651	1227.606	306.902	11698.422	2924.606
235	08.23 17:00:00	0:15:00	1660.338	415.084	1033.983	258.496	11674.313	2918.578
235	08.23 17:15:00	0:15:00	1918.585	479.646	832.406	208.101	11617.642	2904.411
235	08.23 17:30:00	0:15:00	2418.426	604.607	533.147	133.287	11417.06	2854.265
235	08.23 17:45:00	0:15:00	3256.797	814.199	137.202	34.3	10974.634	2743.659
235	08.23 18:00:00	0:15:00	4379.265	1094.816	0	0	9989.368	2497.342
235	08.23 18:15:00	0:15:00	5958.326	1489.582	0	0	8410.307	2102.577
235	08.23 18:30:00	0:15:00	8266.395	2066.599	0	0	6102.239	1525.56
235	08.23 18:45:00	0:11:24	11410.1	2167.919	0	0	2958.533	562.121
235	08.23 18:52:48	0:03:36	13009.542	780.573	0	0	1359.091	81.545
242	08.30 07:37:48	0:03:36	2148.497	128.91	12.925	0.775	12207.211	732.433
242	08.30 07:45:00	0:11:24	1421.726	270.128	121.294	23.046	12825.613	2436.866
242	08.30 08:00:00	0:15:00	318.894	79.724	382.524	95.631	13667.215	3416.804
242	08.30 08:15:00	0:15:00	2.237	0.559	639.28	159.82	13727.117	3431.779
242	08.30 08:30:00	0:15:00	1.243	0.311	845.082	211.271	13522.308	3380.577
242	08.30 08:45:00	0:15:00	0.994	0.249	1023.544	255.886	13344.095	3336.024
242	08.30 09:00:00	0:15:00	0.746	0.186	1167.953	291.988	13199.934	3299.984
242	08.30 09:15:00	0:15:00	0.497	0.124	1292.479	323.12	13075.658	3268.914
242	08.30 09:30:00	0:15:00	0.497	0.124	1348.155	337.039	13019.982	3254.995



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
242	08.30 09:45:00	0:15:00	0.249	0.062	1407.31	351.828	12961.074	3240.269
242	08.30 10:00:00	0:15:00	0.249	0.062	1436.888	359.222	12931.497	3232.874
242	08.30 10:15:00	0:15:00	0.249	0.062	1474.171	368.543	12894.214	3223.553
242	08.30 10:30:00	0:15:00	0.249	0.062	1477.9	369.475	12890.485	3222.621
242	08.30 10:45:00	0:15:00	0.249	0.062	1495.05	373.762	12873.335	3218.334
242	08.30 11:00:00	0:15:00	0.249	0.062	1492.316	373.079	12876.069	3219.017
242	08.30 11:15:00	0:15:00	0.249	0.062	1517.171	379.293	12851.214	3212.803
242	08.30 11:30:00	0:15:00	0	0	1522.639	380.66	12845.994	3211.499
242	08.30 11:45:00	0:15:00	0	0	1549.234	387.309	12819.399	3204.85
242	08.30 12:00:00	0:15:00	0	0	1550.477	387.619	12818.156	3204.539
242	08.30 12:15:00	0:15:00	0	0	1571.356	392.839	12797.278	3199.319
242	08.30 12:30:00	0:15:00	0	0	1563.899	390.975	12804.734	3201.184
242	08.30 12:45:00	0:15:00	0	0	1581.546	395.387	12787.087	3196.772
242	08.30 13:00:00	0:15:00	0	0	1573.841	393.46	12794.792	3198.698
242	08.30 13:15:00	0:15:00	0	0	1614.604	403.651	12754.029	3188.507
242	08.30 13:30:00	0:15:00	0	0	1631.257	407.814	12737.376	3184.344
242	08.30 13:45:00	0:15:00	0.249	0.062	1674.008	418.502	12694.376	3173.594
242	08.30 14:00:00	0:15:00	0.249	0.062	1686.187	421.547	12682.197	3170.549
242	08.30 14:15:00	0:15:00	37.034	9.259	1711.54	427.885	12620.059	3155.015
242	08.30 14:30:00	0:15:00	146.895	36.724	1760.008	440.002	12461.73	3115.433
242	08.30 14:45:00	0:15:00	261.727	65.432	1880.556	470.139	12226.35	3056.588
242	08.30 15:00:00	0:15:00	388.738	97.184	1951.643	487.911	12028.253	3007.063
242	08.30 15:15:00	0:15:00	521.962	130.491	2042.365	510.591	11804.306	2951.077
242	08.30 15:30:00	0:15:00	663.141	165.785	2078.654	519.663	11626.839	2906.71
242	08.30 15:45:00	0:15:00	818.487	204.622	2100.526	525.132	11449.62	2862.405
242	08.30 16:00:00	0:15:00	981.538	245.385	2048.827	512.207	11338.268	2834.567
242	08.30 16:15:00	0:15:00	1166.959	291.74	2001.353	500.338	11200.321	2800.08
242	08.30 16:30:00	0:15:00	1367.79	341.948	1908.891	477.223	11091.952	2772.988
242	08.30 16:45:00	0:15:00	1595.714	398.928	1771.938	442.985	11000.981	2750.245
242	08.30 17:00:00	0:15:00	1841.036	460.259	1544.263	386.066	10983.334	2745.833
242	08.30 17:15:00	0:15:00	2191.497	547.874	1295.213	323.803	10881.924	2720.481
242	08.30 17:30:00	0:15:00	2953.811	738.453	1022.301	255.575	10392.522	2598.13
242	08.30 17:45:00	0:15:00	3939.077	984.769	652.453	163.113	9777.103	2444.276
242	08.30 18:00:00	0:15:00	5209.186	1302.296	99.173	24.793	9060.275	2265.069
242	08.30 18:15:00	0:15:00	7058.673	1764.668	0	0	7309.96	1827.49
242	08.30 18:30:00	0:13:48	9911.819	2279.718	0	0	4456.814	1025.067
242	08.30 18:42:36	0:06:36	12459.493	1370.544	0	0	1909.14	210.005
249	09.06 07:44:24	0:07:48	2123.393	276.041	394.952	51.344	11850.289	1540.538
249	09.06 08:00:00	0:15:00	678.303	169.576	684.517	171.129	13005.814	3251.454
249	09.06 08:15:00	0:15:00	1.243	0.311	960.411	240.103	13406.98	3351.745
249	09.06 08:30:00	0:15:00	0.994	0.249	1169.942	292.485	13197.697	3299.424
249	09.06 08:45:00	0:15:00	0.746	0.186	1345.669	336.417	13022.219	3255.555
249	09.06 09:00:00	0:15:00	0.497	0.124	1480.137	370.034	12888	3222
249	09.06 09:15:00	0:15:00	0.497	0.124	1602.673	400.668	12765.463	3191.366
249	09.06 09:30:00	0:15:00	0.249	0.062	1656.112	414.028	12712.272	3178.068
249	09.06 09:45:00	0:15:00	0.249	0.062	1711.788	427.947	12656.596	3164.149
249	09.06 10:00:00	0:15:00	0.249	0.062	1721.731	430.433	12646.654	3161.664
249	09.06 10:15:00	0:15:00	0.249	0.062	1739.875	434.969	12628.51	3157.127
249	09.06 10:30:00	0:15:00	0.249	0.062	1731.176	432.794	12637.209	3159.302
249	09.06 10:45:00	0:15:00	0.249	0.062	1734.158	433.54	12634.226	3158.557
249	09.06 11:00:00	0:15:00	0.249	0.062	1718.748	429.687	12649.637	3162.409
249	09.06 11:15:00	0:15:00	0	0	1735.401	433.85	12633.232	3158.308
249	09.06 11:30:00	0:15:00	0	0	1735.898	433.975	12632.735	3158.184
249	09.06 11:45:00	0:15:00	0	0	1762.99	440.748	12605.643	3151.411
249	09.06 12:00:00	0:15:00	0	0	1755.037	438.759	12613.597	3153.399
249	09.06 12:15:00	0:15:00	0	0	1777.407	444.352	12591.227	3147.807
249	09.06 12:30:00	0:15:00	0	0	1761.002	440.251	12607.631	3151.908



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
249	09.06 12:45:00	0:15:00	0	0	1782.626	445.657	12586.007	3146.502
249	09.06 13:00:00	0:15:00	0	0	1772.187	443.047	12596.446	3149.112
249	09.06 13:15:00	0:15:00	0	0	1821.401	455.35	12547.233	3136.808
249	09.06 13:30:00	0:15:00	0	0	1845.013	461.253	12523.62	3130.905
249	09.06 13:45:00	0:15:00	0.249	0.062	1896.215	474.054	12472.17	3118.042
249	09.06 14:00:00	0:15:00	0.249	0.062	1914.111	478.528	12454.274	3113.568
249	09.06 14:15:00	0:15:00	73.075	18.269	1942.695	485.674	12352.864	3088.216
249	09.06 14:30:00	0:15:00	190.392	47.598	2072.191	518.048	12106.05	3026.513
249	09.06 14:45:00	0:15:00	315.414	78.854	2229.774	557.444	11823.445	2955.861
249	09.06 15:00:00	0:15:00	448.639	112.16	2345.849	586.462	11574.146	2893.536
249	09.06 15:15:00	0:15:00	592.303	148.076	2494.981	623.745	11281.349	2820.337
249	09.06 15:30:00	0:15:00	744.418	186.104	2576.506	644.127	11047.709	2761.927
249	09.06 15:45:00	0:15:00	913.186	228.296	2630.442	657.611	10825.005	2706.251
249	09.06 16:00:00	0:15:00	1098.358	274.59	2614.535	653.634	10655.74	2663.935
249	09.06 16:15:00	0:15:00	1299.935	324.984	2639.887	659.972	10428.811	2607.203
249	09.06 16:30:00	0:15:00	1522.142	380.536	2611.552	652.888	10234.939	2558.735
249	09.06 16:45:00	0:15:00	1780.389	445.097	2531.27	632.817	10056.975	2514.244
249	09.06 17:00:00	0:15:00	2075.174	518.793	2223.063	555.766	10070.396	2517.599
249	09.06 17:15:00	0:15:00	2704.511	676.128	1909.389	477.347	9754.733	2438.683
249	09.06 17:30:00	0:15:00	3610.489	902.622	1635.98	408.995	9122.165	2280.541
249	09.06 17:45:00	0:15:00	4774.466	1193.616	1307.889	326.972	8286.279	2071.57
249	09.06 18:00:00	0:15:00	6344.578	1586.145	748.892	187.223	7275.163	1818.791
249	09.06 18:15:00	0:16:12	8723.485	2355.341	1.988	0.537	5643.16	1523.653
249	09.06 18:31:48	0:08:24	11881.855	1663.46	0	0	2486.778	348.149
256	09.13 07:50:24	0:04:48	2119.416	169.553	822.215	65.777	11427.002	914.16
256	09.13 08:00:00	0:12:36	1139.618	239.32	1000.925	210.194	12228.09	2567.899
256	09.13 08:15:00	0:15:00	116.82	29.205	1295.213	323.803	12956.6	3239.15
256	09.13 08:30:00	0:15:00	0.746	0.186	1524.876	381.219	12843.011	3210.753
256	09.13 08:45:00	0:15:00	0.497	0.124	1696.13	424.032	12672.007	3168.002
256	09.13 09:00:00	0:15:00	0.497	0.124	1823.638	455.909	12544.499	3136.125
256	09.13 09:15:00	0:15:00	0.249	0.062	1934.741	483.685	12433.644	3108.411
256	09.13 09:30:00	0:15:00	0.249	0.062	908	497.977	12376.476	3094.119
256	09.13 09:45:00	0:15:00	0.249	0.062	2042.116	510.529	12326.269	3081.567
256	09.13 10:00:00	0:15:00	0.249	0.062	2041.868	510.467	12326.517	3081.629
256	09.13 10:15:00	0:15:00	0.249	0.062	2036.648	509.162	12331.737	3082.934
256	09.13 10:30:00	0:15:00	0.249	0.062	2007.816	501.954	12360.569	3090.142
256	09.13 10:45:00	0:15:00	0.249	0.062	2003.59	500.898	12364.794	3091.199
256	09.13 11:00:00	0:15:00	0	0	1985.943	496.486	12382.69	3095.673
256	09.13 11:15:00	0:15:00	0	0	2001.602	500.4	12367.031	3091.758
256	09.13 11:30:00	0:15:00	0	0	2002.596	500.649	12366.037	3091.509
256	09.13 11:45:00	0:15:00	0	0	2036.399	509.1	12332.234	3083.058
256	09.13 12:00:00	0:15:00	0	0	2030.683	507.671	12337.951	3084.488
256	09.13 12:15:00	0:15:00	0	0	2061.006	515.252	12307.627	3076.907
256	09.13 12:30:00	0:15:00	0	0	2051.561	512.89	12317.072	3079.268
256	09.13 12:45:00	0:15:00	0	0	2075.422	518.856	12293.211	3073.303
256	09.13 13:00:00	0:15:00	0	0	2074.428	518.607	12294.205	3073.551
256	09.13 13:15:00	0:15:00	0	0	2126.127	531.532	12242.506	3060.627
256	09.13 13:30:00	0:15:00	0	0	2144.272	536.068	12224.362	3056.09
256	09.13 13:45:00	0:15:00	0.249	0.062	2193.734	548.433	12174.651	3043.663
256	09.13 14:00:00	0:15:00	4.971	1.243	2201.936	550.484	12161.726	3040.432
256	09.13 14:15:00	0:15:00	116.82	29.205	2269.294	567.324	11982.519	2995.63
256	09.13 14:30:00	0:15:00	241.097	60.274	2436.819	609.205	11690.717	2922.679
256	09.13 14:45:00	0:15:00	375.067	93.767	2631.934	657.983	11361.632	2840.408
256	09.13 15:00:00	0:15:00	518.98	129.745	2792.002	698.001	11057.651	2764.413
256	09.13 15:15:00	0:15:00	673.083	168.271	2992.834	748.208	10702.717	2675.679
256	09.13 15:30:00	0:15:00	840.36	210.09	3141.966	785.491	10386.308	2596.577
256	09.13 15:45:00	0:15:00	1028.266	257.067	3262.017	815.504	10078.35	2519.588



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
256	09.13 16:00:00	0:15:00	1229.097	307.274	3293.583	823.396	9845.953	2461.488
256	09.13 16:15:00	0:15:00	1459.755	364.939	3438.49	859.623	9470.388	2367.597
256	09.13 16:30:00	0:15:00	1715.02	428.755	3472.542	868.135	9181.072	2295.268
256	09.13 16:45:00	0:15:00	2004.585	501.146	3380.577	845.144	8983.472	2245.868
256	09.13 17:00:00	0:15:00	2489.513	622.378	2979.909	744.977	8899.212	2224.803
256	09.13 17:15:00	0:15:00	3336.832	834.208	2634.668	658.667	8397.134	2099.283
256	09.13 17:30:00	0:15:00	4416.3	1104.075	2412.212	603.053	7540.121	1885.03
256	09.13 17:45:00	0:15:00	5828.581	1457.145	2102.515	525.629	6437.537	1609.384
256	09.13 18:00:00	0:15:00	7834.657	1958.664	1482.622	370.656	5051.354	1262.839
256	09.13 18:15:00	0:10:48	10562.035	1901.166	682.777	122.9	3123.821	562.288
256	09.13 18:21:00	0:03:00	11405.875	570.294	344.992	17.25	2617.766	130.888
263	09.20 07:57:00	0:01:12	2031.18	40.624	1262.155	25.243	11075.298	221.506
263	09.20 08:00:00	0:09:00	1683.453	252.518	1324.542	198.681	11360.638	1704.096
263	09.20 08:15:00	0:15:00	440.188	110.047	1629.517	407.379	12298.928	3074.732
263	09.20 08:30:00	0:15:00	0.497	0.124	1894.724	473.681	12473.412	3118.353
263	09.20 08:45:00	0:15:00	0.497	0.124	2074.428	518.607	12293.708	3073.427
263	09.20 09:00:00	0:15:00	0.249	0.062	2189.011	547.253	12179.373	3044.843
263	09.20 09:15:00	0:15:00	0.249	0.062	2295.144	573.786	12073.241	3018.31
263	09.20 09:30:00	0:15:00	0.249	0.062	2351.814	587.953	12016.571	3004.143
263	09.20 09:45:00	0:15:00	0.249	0.062	2398.045	599.511	11970.34	2992.585
263	09.20 10:00:00	0:15:00	0.249	0.062	2389.097	597.274	11979.288	2994.822
263	09.20 10:15:00	0:15:00	0.249	0.062	2364.49	591.123	12003.895	3000.974
263	09.20 10:30:00	0:15:00	0.249	0.062	2318.259	579.565	12050.126	3012.531
263	09.20 10:45:00	0:15:00	0	0	2307.82	576.955	12060.813	3015.203
263	09.20 11:00:00	0:15:00	0	0	2281.225	570.306	12087.409	3021.852
263	09.20 11:15:00	0:15:00	0	0	2298.375	574.594	12070.258	3017.565
263	09.20 11:30:00	0:15:00	0	0	2300.115	575.029	12068.519	3017.13
263	09.20 11:45:00	0:15:00	0	0	2336.652	584.163	12031.981	3007.995
263	09.20 12:00:00	0:15:00	0	0	2339.138	584.784	12029.496	3007.374
263	09.20 12:15:00	0:15:00	0	0	2368.964	592.241	11999.669	2999.917
263	09.20 12:30:00	0:15:00	0	0	2364.242	591.06	12004.392	3001.098
263	09.20 12:45:00	0:15:00	0	0	2396.554	599.138	11972.08	2993.02
263	09.20 13:00:00	0:15:00	0	0	2404.507	601.127	11964.126	2991.032
263	09.20 13:15:00	0:15:00	0	0	2458.94	614.735	11909.693	2977.423
263	09.20 13:30:00	0:15:00	0.249	0.062	2478.328	619.582	11890.057	2972.514
263	09.20 13:45:00	0:15:00	0.249	0.062	2533.009	633.252	11835.375	2958.844
263	09.20 14:00:00	0:15:00	40.514	10.129	2534.998	633.749	11793.121	2948.28
263	09.20 14:15:00	0:15:00	165.04	41.26	2683.384	670.846	11520.209	2880.052
263	09.20 14:30:00	0:15:00	296.524	74.131	2876.262	719.065	11195.847	2798.962
263	09.20 14:45:00	0:15:00	444.414	111.103	3110.896	777.724	10813.323	2703.331
263	09.20 15:00:00	0:15:00	599.014	149.754	3313.965	828.491	10455.654	2613.914
263	09.20 15:15:00	0:15:00	771.51	192.878	3571.466	892.867	10025.657	2506.414
263	09.20 15:30:00	0:15:00	955.688	238.922	3778.76	944.69	9634.185	2408.546
263	09.20 15:45:00	0:15:00	1162.236	290.559	4002.955	1000.739	9203.442	2300.86
263	09.20 16:00:00	0:15:00	1387.675	346.919	4149.85	1037.463	8831.108	2207.777
263	09.20 16:15:00	0:15:00	1649.899	412.475	4379.017	1094.754	8339.718	2084.929
263	09.20 16:30:00	0:15:00	1940.209	485.052	4517.461	1129.365	7910.963	1977.741
263	09.20 16:45:00	0:15:00	2316.768	579.192	4175.451	1043.863	7876.414	1969.104
263	09.20 17:00:00	0:15:00	3095.735	773.934	3764.592	941.148	7508.306	1877.077
263	09.20 17:15:00	0:15:00	4099.145	1024.786	3491.183	872.796	6778.304	1694.576
263	09.20 17:30:00	0:15:00	5385.162	1346.29	3367.652	841.913	5615.819	1403.955
263	09.20 17:45:00	0:15:00	7173.007	1793.252	2973.446	743.362	4222.179	1055.545
263	09.20 18:00:00	0:12:36	9440.065	1982.414	2206.161	463.294	2722.407	571.706
263	09.20 18:09:36	0:04:48	10827.242	866.179	1596.46	127.717	1944.932	155.595
270	09.27 08:03:00	0:06:00	1786.603	178.66	1716.511	171.651	10865.519	1086.552
270	09.27 08:15:00	0:13:12	762.562	167.764	1967.55	432.861	11638.521	2560.475
270	09.27 08:30:00	0:15:00	11.931	2.983	2273.022	568.256	12083.68	3020.92



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
270	09.27 08:45:00	0:15:00	0.249	0.062	2475.096	618.774	11893.288	2973.322
270	09.27 09:00:00	0:15:00	0.249	0.062	2593.159	648.29	11775.225	2943.806
270	09.27 09:15:00	0:15:00	0.249	0.062	2682.887	670.722	11685.498	2921.374
270	09.27 09:30:00	0:15:00	0.249	0.062	2734.089	683.522	11634.295	2908.574
270	09.27 09:45:00	0:15:00	0.249	0.062	2778.829	694.707	11589.556	2897.389
270	09.27 10:00:00	0:15:00	0.249	0.062	2775.349	693.837	11593.036	2898.259
270	09.27 10:15:00	0:15:00	0.249	0.062	2724.147	681.037	11644.238	2911.059
270	09.27 10:30:00	0:15:00	0.249	0.062	2658.778	664.694	11709.607	2927.402
270	09.27 10:45:00	0:15:00	0	0	2639.39	659.848	11729.243	2932.311
270	09.27 11:00:00	0:15:00	0	0	2606.581	651.645	11762.052	2940.513
270	09.27 11:15:00	0:15:00	0	0	2622.737	655.684	11745.896	2936.474
270	09.27 11:30:00	0:15:00	0	0	2625.968	656.492	11742.665	2935.666
270	09.27 11:45:00	0:15:00	0	0	2663.251	665.813	11705.382	2926.345
270	09.27 12:00:00	0:15:00	0	0	2664.743	666.186	11703.89	2925.973
270	09.27 12:15:00	0:15:00	0	0	2702.523	675.631	11666.11	2916.528
270	09.27 12:30:00	0:15:00	0	0	2706.5	676.625	11662.133	2915.533
270	09.27 12:45:00	0:15:00	0	0	2750.245	687.561	11618.388	2904.597
270	09.27 13:00:00	0:15:00	0.249	0.062	2760.436	690.109	11607.949	2901.987
270	09.27 13:15:00	0:15:00	0	0	2819.095	704.774	11549.539	2887.385
270	09.27 13:30:00	0:15:00	0.249	0.062	2840.222	710.055	11528.163	2882.041
270	09.27 13:45:00	0:15:00	0.249	0.062	2897.389	724.347	11470.996	2867.749
270	09.27 14:00:00	0:15:00	85.502	21.376	2898.383	724.596	11384.748	2846.187
270	09.27 14:15:00	0:15:00	218.479	54.62	3151.162	787.791	10998.993	2749.748
270	09.27 14:30:00	0:15:00	364.131	91.033	3379.831	844.958	10624.671	2656.168
270	09.27 14:45:00	0:15:00	523.702	130.926	3668.402	917.101	10176.529	2544.132
270	09.27 15:00:00	0:15:00	692.222	173.055	3923.915	980.979	9752.496	2438.124
270	09.27 15:15:00	0:15:00	883.856	220.964	4253.249	1063.312	9231.528	2307.882
270	09.27 15:30:00	0:15:00	1083.445	270.861	4532.126	1133.031	8753.062	2188.266
270	09.27 15:45:00	0:15:00	1315.843	328.961	4833.621	1208.405	8219.169	2054.792
270	09.27 16:00:00	0:15:00	1579.558	394.889	5173.394	1293.348	7615.681	1903.92
270	09.27 16:15:00	0:15:00	1872.851	468.213	5540.011	1385.003	6955.772	1738.943
270	09.27 16:30:00	0:15:00	2215.109	553.777	5406.289	1351.572	6747.235	1686.809
270	09.27 16:45:00	0:15:00	2863.834	715.959	4956.407	1239.102	6548.392	1637.098
270	09.27 17:00:00	0:15:00	3794.17	948.543	4533.866	1133.466	6040.597	1510.149
270	09.27 17:15:00	0:15:00	4996.921	1249.23	4346.208	1086.552	5025.505	1256.376
270	09.27 17:30:00	0:15:00	6572.751	1643.188	4267.665	1066.916	3528.218	882.054
270	09.27 17:45:00	0:13:48	8655.132	1990.68	3774.037	868.029	1939.464	446.077
270	09.27 17:58:11	0:06:36	10373.88	1141.127	2862.84	314.912	1131.913	124.51
277	10.04 08:09:36	0:02:24	1588.506	63.54	2165.15	86.606	10614.977	424.599
277	10.04 08:15:00	0:10:12	1112.526	189.129	2295.889	390.301	10960.218	1863.237
277	10.04 08:30:00	0:15:00	148.884	37.221	2633.922	658.481	11585.828	2896.457
277	10.04 08:45:00	0:15:00	0.249	0.062	2887.447	721.862	11480.938	2870.234
277	10.04 09:00:00	0:15:00	0.249	0.062	3021.666	755.416	11346.719	2836.68
277	10.04 09:15:00	0:15:00	0.249	0.062	3110.399	777.6	11257.985	2814.496
277	10.04 09:30:00	0:15:00	0.249	0.062	3139.729	784.932	11228.656	2807.164
277	10.04 09:45:00	0:15:00	0.249	0.062	3179.497	794.874	11188.887	2797.222
277	10.04 10:00:00	0:15:00	0.249	0.062	3181.983	795.496	11186.402	2796.6
277	10.04 10:15:00	0:15:00	0.249	0.062	3120.342	780.085	11248.043	2812.011
277	10.04 10:30:00	0:15:00	0	0	3038.816	759.704	11329.817	2832.454
277	10.04 10:45:00	0:15:00	0	0	3005.758	751.44	11362.875	2840.719
277	10.04 11:00:00	0:15:00	0	0	2962.013	740.503	11406.62	2851.655
277	10.04 11:15:00	0:15:00	0	0	2970.961	742.74	11397.672	2849.418
277	10.04 11:30:00	0:15:00	0	0	2972.701	743.175	11395.933	2848.983
277	10.04 11:45:00	0:15:00	0	0	3018.932	754.733	11349.702	2837.425
277	10.04 12:00:00	0:15:00	0	0	3026.637	756.659	11341.996	2835.499
277	10.04 12:15:00	0:15:00	0	0	3068.394	767.098	11300.239	2825.06
277	10.04 12:30:00	0:15:00	0	0	3075.353	768.838	11293.28	2823.32



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
277	10.04 12:45:00	0:15:00	0	0	3128.047	782.012	11240.587	2810.147
277	10.04 13:00:00	0:15:00	0.249	0.062	3140.474	785.119	11227.91	2806.978
277	10.04 13:15:00	0:15:00	0	0	3210.566	802.642	11158.067	2789.517
277	10.04 13:30:00	0:15:00	0.249	0.062	3232.936	808.234	11135.448	2783.862
277	10.04 13:45:00	0:15:00	5.22	1.305	3291.843	822.961	11071.57	2767.893
277	10.04 14:00:00	0:15:00	134.965	33.741	3350.999	837.75	10882.669	2720.667
277	10.04 14:15:00	0:15:00	279.126	69.781	3672.628	918.157	10416.88	2604.22
277	10.04 14:30:00	0:15:00	435.466	108.866	3956.227	989.057	9976.94	2494.235
277	10.04 14:45:00	0:15:00	608.211	152.053	4306.688	1076.672	9453.735	2363.434
277	10.04 15:00:00	0:15:00	793.88	198.47	4630.304	1157.576	8944.449	2236.112
277	10.04 15:15:00	0:15:00	1005.896	251.474	5049.366	1262.341	8313.371	2078.343
277	10.04 15:30:00	0:15:00	1232.826	308.206	5400.075	1350.019	7735.733	1933.933
277	10.04 15:45:00	0:15:00	1497.287	374.322	5861.639	1465.41	7009.708	1752.427
277	10.04 16:00:00	0:15:00	1792.071	448.018	6330.162	1582.541	6246.4	1561.6
277	10.04 16:15:00	0:15:00	2129.607	532.402	6680.623	1670.156	5558.403	1389.601
277	10.04 16:30:00	0:15:00	2628.454	657.113	6230.492	1557.623	5509.687	1377.422
277	10.04 16:45:00	0:15:00	3505.102	876.276	5705.796	1426.449	5157.735	1289.434
277	10.04 17:00:00	0:15:00	4600.727	1150.182	5242.74	1310.685	4525.166	1131.292
277	10.04 17:15:00	0:15:00	6051.037	1512.759	5074.967	1268.742	3242.63	810.657
277	10.04 17:30:00	0:16:12	7922.148	2138.98	4854.997	1310.849	1591.489	429.702
277	10.04 17:47:23	0:08:24	10038.83	1405.436	4134.192	578.787	195.612	27.386
284	10.11 08:16:11	0:07:12	1473.923	176.871	2614.535	313.744	10280.176	1233.621
284	10.11 08:30:00	0:14:24	425.524	102.126	2970.961	713.031	10972.149	2633.316
284	10.11 08:45:00	0:15:00	0.249	0.062	3299.549	824.887	11068.836	2767.209
284	10.11 09:00:00	0:15:00	0.249	0.062	3462.848	865.712	10905.536	2726.384
284	10.11 09:15:00	0:15:00	0.249	0.062	3590.108	897.527	10778.277	2694.569
284	10.11 09:30:00	0:15:00	0.249	0.062	3626.645	906.661	10741.74	2685.435
284	10.11 09:45:00	0:15:00	0.249	0.062	3651.998	912.999	10716.387	2679.097
284	10.11 10:00:00	0:15:00	0.249	0.062	3631.368	907.842	10737.017	2684.254
284	10.11 10:15:00	0:15:00	0	0	3573.206	893.302	10795.427	2698.857
284	10.11 10:30:00	0:15:00	0	0	3454.398	863.599	10914.236	2728.559
284	10.11 10:45:00	0:15:00	0	0	3400.461	850.115	10968.172	2742.043
284	10.11 11:00:00	0:15:00	0	0	3343.791	835.948	11024.842	2756.211
284	10.11 11:15:00	0:15:00	0	0	3349.756	837.439	11018.877	2754.719
284	10.11 11:30:00	0:15:00	0	0	3348.762	837.191	11019.871	2754.968
284	10.11 11:45:00	0:15:00	0	0	3396.485	849.121	10972.149	2743.037
284	10.11 12:00:00	0:15:00	0	0	3407.172	851.793	10961.461	2740.365
284	10.11 12:15:00	0:15:00	0	0	3454.895	863.724	10913.739	2728.435
284	10.11 12:30:00	0:15:00	0	0	3473.039	868.26	10895.594	2723.899
284	10.11 12:45:00	0:15:00	0	0	3539.9	884.975	10828.733	2707.183
284	10.11 13:00:00	0:15:00	0	0	3557.05	889.263	10811.583	2702.896
284	10.11 13:15:00	0:15:00	0	0	3624.408	906.102	10744.225	2686.056
284	10.11 13:30:00	0:15:00	0.249	0.062	3654.483	913.621	10713.902	2678.475
284	10.11 13:45:00	0:15:00	42.503	10.626	3706.679	926.67	10619.451	2654.863
284	10.11 14:00:00	0:15:00	183.93	45.982	3880.17	970.042	10304.534	2576.133
284	10.11 14:15:00	0:15:00	343.252	85.813	4255.486	1063.871	9769.895	2442.474
284	10.11 14:30:00	0:15:00	514.009	128.502	4605.946	1151.487	9248.678	2312.17
284	10.11 14:45:00	0:15:00	704.898	176.224	5030.227	1257.557	8633.508	2158.377
284	10.11 15:00:00	0:15:00	908.215	227.054	5445.312	1361.328	8015.107	2003.777
284	10.11 15:15:00	0:15:00	1140.115	285.029	5958.326	1489.582	7270.192	1817.548
284	10.11 15:30:00	0:15:00	1400.102	350.026	6421.63	1605.408	6546.901	1636.725
284	10.11 15:45:00	0:15:00	1701.349	425.337	7085.765	1771.441	5581.519	1395.38
284	10.11 16:00:00	0:15:00	2030.186	507.546	7746.669	1936.667	4591.779	1147.945
284	10.11 16:15:00	0:15:00	2437.565	609.391	7574.173	1893.543	4356.896	1089.224
284	10.11 16:30:00	0:15:00	3190.682	797.671	6963.725	1740.931	4214.226	1053.556
284	10.11 16:45:00	0:15:00	4210	1052.5	6399.509	1599.877	3759.124	939.781
284	10.11 17:00:00	0:15:00	5481.849	1370.462	5841.257	1460.314	3045.527	761.382



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
284	10.11 17:15:00	0:15:00	7186.429	1796.607	5642.912	1410.728	1539.292	384.823
284	10.11 17:30:00	0:11:24	9142.049	1736.989	5076.707	964.574	149.878	28.477
284	10.11 17:37:12	0:03:36	9637.168	578.23	4730.72	283.843	0.746	0.045
291	10.18 08:22:48	0:03:36	1323.548	79.413	3086.787	185.207	9958.299	597.498
291	10.18 08:30:00	0:10:48	759.331	136.68	3291.843	592.532	10317.459	1857.143
291	10.18 08:45:00	0:15:00	28.335	7.084	3682.818	920.705	10657.48	2664.37
291	10.18 09:00:00	0:15:00	0.249	0.062	3892.1	973.025	10476.284	2619.071
291	10.18 09:15:00	0:15:00	0.249	0.062	4070.562	1017.64	10297.823	2574.456
291	10.18 09:30:00	0:15:00	0.249	0.062	4130.463	1032.616	10237.922	2559.48
291	10.18 09:45:00	0:15:00	0.249	0.062	4160.29	1040.072	10208.095	2552.024
291	10.18 10:00:00	0:15:00	0.249	0.062	4137.423	1034.356	10230.962	2557.741
291	10.18 10:15:00	0:15:00	0	0	4095.169	1023.792	10273.465	2568.366
291	10.18 10:30:00	0:15:00	0	0	3960.453	990.113	10408.181	2602.045
291	10.18 10:45:00	0:15:00	0	0	3877.933	969.483	10490.701	2622.675
291	10.18 11:00:00	0:15:00	0	0	3785.471	946.368	10583.162	2645.791
291	10.18 11:15:00	0:15:00	0	0	3773.292	943.323	10595.342	2648.835
291	10.18 11:30:00	0:15:00	0	0	3760.864	940.216	10607.769	2651.942
291	10.18 11:45:00	0:15:00	0	0	3806.349	951.587	10562.284	2640.571
291	10.18 12:00:00	0:15:00	0	0	3811.072	952.768	10557.561	2639.39
291	10.18 12:15:00	0:15:00	0	0	3868.488	967.122	10500.146	2625.036
291	10.18 12:30:00	0:15:00	0	0	3887.875	971.969	10480.758	2620.19
291	10.18 12:45:00	0:15:00	0	0	3969.401	992.35	10399.233	2599.808
291	10.18 13:00:00	0:15:00	0	0	3988.042	997.011	10380.591	2595.148
291	10.18 13:15:00	0:15:00	0.249	0.062	4057.388	1014.347	10310.996	2577.749
291	10.18 13:30:00	0:15:00	0.249	0.062	4094.672	1023.668	10273.713	2568.428
291	10.18 13:45:00	0:15:00	82.023	20.506	4148.359	1037.09	10138.252	2534.563
291	10.18 14:00:00	0:15:00	237.866	59.466	4465.016	1116.254	9665.751	2416.438
291	10.18 14:15:00	0:15:00	408.125	102.031	4900.731	1225.183	9059.778	2264.944
291	10.18 14:30:00	0:15:00	597.274	149.319	5321.035	1330.259	8450.324	2112.581
291	10.18 14:45:00	0:15:00	803.077	200.769	5838.523	1459.631	7727.033	1931.758
291	10.18 15:00:00	0:15:00	1027.52	256.88	6363.717	1590.929	6977.396	1744.349
291	10.18 15:15:00	0:15:00	1292.23	323.058	6969.194	1742.298	6107.21	1526.802
291	10.18 15:30:00	0:15:00	1578.564	394.641	7619.658	1904.915	5170.411	1292.603
291	10.18 15:45:00	0:15:00	1921.319	480.33	8512.463	2128.116	3934.852	983.713
291	10.18 16:00:00	0:15:00	2296.635	574.159	8867.397	2216.849	3204.601	801.15
291	10.18 16:15:00	0:15:00	2909.568	727.392	8389.429	2097.357	3069.637	767.409
291	10.18 16:30:00	0:15:00	3809.332	952.333	7712.369	1928.092	2846.933	711.733
291	10.18 16:45:00	0:15:00	4926.083	1231.521	6901.587	1725.397	2540.963	635.241
291	10.18 17:00:00	0:15:00	6275.978	1568.994	6427.098	1606.775	1665.557	416.389
291	10.18 17:15:00	0:13:12	7878.9	1733.358	6053.771	1331.83	435.963	95.912
291	10.18 17:27:00	0:06:00	9077.176	907.718	5291.457	529.146	0	0
298	10.25 07:30:00	0:07:48	1189.577	154.645	3556.056	462.287	9623	1250.99
298	10.25 07:45:00	0:15:00	220.467	55.117	4001.961	1000.49	10146.205	2536.551
298	10.25 08:00:00	0:15:00	0.249	0.062	4316.133	1079.033	10052.252	2513.063
298	10.25 08:15:00	0:15:00	0.249	0.062	4531.132	1132.783	9837.253	2459.313
298	10.25 08:30:00	0:15:00	0.249	0.062	4633.784	1158.446	9734.601	2433.65
298	10.25 08:45:00	0:15:00	0.249	0.062	4678.772	1169.693	9689.612	2422.403
298	10.25 09:00:00	0:15:00	0	0	4655.408	1163.852	9713.225	2428.306
298	10.25 09:15:00	0:15:00	0	0	4639.252	1159.813	9729.381	2432.345
298	10.25 09:30:00	0:15:00	0	0	4485.895	1121.474	9882.738	2470.685
298	10.25 09:45:00	0:15:00	0	0	4390.45	1097.613	9978.183	2494.546
298	10.25 10:00:00	0:15:00	0	0	4282.081	1070.52	10086.552	2521.638
298	10.25 10:15:00	0:15:00	0	0	4252.006	1063.001	10116.627	2529.157
298	10.25 10:30:00	0:15:00	0	0	4231.625	1057.906	10137.009	2534.252
298	10.25 10:45:00	0:15:00	0	0	4280.341	1070.085	10088.292	2522.073
298	10.25 11:00:00	0:15:00	0	0	4284.566	1071.142	10084.067	2521.017
298	10.25 11:15:00	0:15:00	0	0	4349.687	1087.422	10018.946	2504.736



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
298	10.25 11:30:00	0:15:00	0	0	4366.589	1091.647	10002.044	2500.511
298	10.25 11:45:00	0:15:00	0	0	4456.565	1114.141	9912.068	2478.017
298	10.25 12:00:00	0:15:00	0	0	4471.23	1117.808	9897.403	2474.351
298	10.25 12:15:00	0:15:00	0.249	0.062	4551.016	1137.754	9817.369	2454.342
298	10.25 12:30:00	0:15:00	0.497	0.124	4586.31	1146.578	9781.826	2445.456
298	10.25 12:45:00	0:15:00	121.543	30.386	4672.31	1168.077	9574.781	2393.695
298	10.25 13:00:00	0:15:00	288.074	72.018	5098.579	1274.645	8981.98	2245.495
298	10.25 13:15:00	0:15:00	475.98	118.995	5618.802	1404.7	8273.851	2068.463
298	10.25 13:30:00	0:15:00	679.048	169.762	6114.418	1528.604	7575.167	1893.792
298	10.25 13:45:00	0:15:00	907.966	226.992	6749.472	1687.368	6711.195	1677.799
298	10.25 14:00:00	0:15:00	1159.751	289.938	7373.342	1843.335	5835.541	1458.885
298	10.25 14:15:00	0:15:00	1453.293	363.323	8109.557	2027.389	4805.783	1201.446
298	10.25 14:30:00	0:15:00	1783.123	445.781	9008.576	2252.144	3576.934	894.234
298	10.25 14:45:00	0:15:00	2160.179	540.045	10120.853	2530.213	2087.601	521.9
298	10.25 15:00:00	0:15:00	2617.766	654.442	9720.184	2430.046	2030.683	507.671
298	10.25 15:15:00	0:15:00	3415.126	853.782	9160.442	2290.11	1793.065	448.266
298	10.25 15:30:00	0:15:00	4380.757	1095.189	8245.516	2061.379	1742.361	435.59
298	10.25 15:45:00	0:15:00	5550.698	1387.675	7353.209	1838.302	1464.726	366.182
298	10.25 16:00:00	0:15:00	6979.881	1744.97	6891.148	1722.787	497.604	124.401
298	10.25 16:15:00	0:09:00	8412.296	1261.844	5956.338	893.451	0	0
298	10.25 16:18:00	0:01:48	8557.451	256.724	5811.182	174.335	0	0
305	11.01 07:36:35	0:04:12	1094.133	76.589	4006.932	280.485	9267.568	648.73
305	11.01 07:45:00	0:11:24	441.431	83.872	4287.052	814.54	9640.15	1831.629
305	11.01 08:00:00	0:15:00	1.243	0.311	4698.657	1174.664	9668.734	2417.183
305	11.01 08:15:00	0:15:00	0.249	0.062	4944.476	1236.119	9423.909	2355.977
305	11.01 08:30:00	0:15:00	0.249	0.062	5122.938	1280.734	9245.447	2311.362
305	11.01 08:45:00	0:15:00	0.249	0.062	5197.752	1299.438	9170.632	2292.658
305	11.01 09:00:00	0:15:00	0	0	5177.868	1294.467	9190.765	2297.691
305	11.01 09:15:00	0:15:00	0	0	5172.897	1293.224	9195.736	2298.934
305	11.01 09:30:00	0:15:00	0	0	5028.984	1257.246	9339.649	2334.912
305	11.01 09:45:00	0:15:00	0	0	4924.095	1231.024	9444.539	2361.135
305	11.01 10:00:00	0:15:00	0	0	4790.621	1197.655	9578.012	2394.503
305	11.01 10:15:00	0:15:00	0	0	4744.391	1186.098	9624.243	2406.061
305	11.01 10:30:00	0:15:00	0	0	4713.57	1178.392	9655.063	2413.766
305	11.01 10:45:00	0:15:00	0	0	4764.026	1191.007	9604.607	2401.152
305	11.01 11:00:00	0:15:00	0	0	4769.494	1192.374	9599.139	2399.785
305	11.01 11:15:00	0:15:00	0	0	4844.558	1211.139	9524.076	2381.019
305	11.01 11:30:00	0:15:00	0	0	4871.401	1217.85	9497.232	2374.308
305	11.01 11:45:00	0:15:00	0	0	4967.343	1241.836	9401.29	2350.323
305	11.01 12:00:00	0:15:00	0	0	4984.742	1246.185	9383.891	2345.973
305	11.01 12:15:00	0:15:00	0.249	0.062	5067.262	1266.815	9301.123	2325.281
305	11.01 12:30:00	0:15:00	4.225	1.056	5093.857	1273.464	9270.551	2317.638
305	11.01 12:45:00	0:15:00	158.329	39.582	5282.26	1320.565	8928.044	2232.011
305	11.01 13:00:00	0:15:00	339.524	84.881	5772.905	1443.226	8256.204	2064.051
305	11.01 13:15:00	0:15:00	541.598	135.4	6372.914	1593.228	7454.122	1863.53
305	11.01 13:30:00	0:15:00	763.308	190.827	6959.251	1739.813	6646.074	1661.518
305	11.01 13:45:00	0:15:00	1010.619	252.655	7712.12	1928.03	5645.894	1411.474
305	11.01 14:00:00	0:15:00	1288.999	322.25	8369.793	2092.448	4709.842	1177.46
305	11.01 14:15:00	0:15:00	1615.847	403.962	9135.089	2283.772	3617.697	904.424
305	11.01 14:30:00	0:15:00	1983.209	495.802	10023.42	2505.855	2362.005	590.501
305	11.01 14:45:00	0:15:00	2400.033	600.008	10553.585	2638.396	1415.015	353.754
305	11.01 15:00:00	0:15:00	3010.729	752.682	10002.044	2500.511	1355.86	338.965
305	11.01 15:15:00	0:15:00	3925.655	981.414	9361.77	2340.443	1081.208	270.302
305	11.01 15:30:00	0:15:00	4907.193	1226.798	8546.763	2136.691	914.677	228.669
305	11.01 15:45:00	0:15:00	6051.037	1512.759	7781.218	1945.305	536.379	134.095
305	11.01 16:00:00	0:12:36	7336.059	1540.572	7032.575	1476.841	0	0
305	11.01 16:10:12	0:05:24	8052.141	724.693	6316.492	568.484	0	0



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
312	11.08 07:43:48	0:00:36	954.446	9.544	4459.797	44.598	8954.391	89.544
312	11.08 07:45:00	0:07:48	864.966	112.446	4503.542	585.46	9000.125	1170.016
312	11.08 08:00:00	0:15:00	78.791	19.698	4984.493	1246.123	9305.349	2326.337
312	11.08 08:15:00	0:15:00	0.249	0.062	5320.289	1330.072	9048.096	2262.024
312	11.08 08:30:00	0:15:00	0.249	0.062	5565.86	1391.465	8802.525	2200.631
312	11.08 08:45:00	0:15:00	0	0	5693.865	1423.466	8674.768	2168.692
312	11.08 09:00:00	0:15:00	0	0	5690.385	1422.596	8678.248	2169.562
312	11.08 09:15:00	0:15:00	0	0	5690.385	1422.596	8678.248	2169.562
312	11.08 09:30:00	0:15:00	0	0	5582.016	1395.504	8786.617	2196.654
312	11.08 09:45:00	0:15:00	0	0	5465.942	1366.485	8902.692	2225.673
312	11.08 10:00:00	0:15:00	0	0	5305.127	1326.282	9063.506	2265.876
312	11.08 10:15:00	0:15:00	0	0	5240.255	1310.064	9128.378	2282.095
312	11.08 10:30:00	0:15:00	0	0	5193.527	1298.382	9175.106	2293.777
312	11.08 10:45:00	0:15:00	0	0	5245.475	1311.369	9123.159	2280.79
312	11.08 11:00:00	0:15:00	0	0	5255.914	1313.978	9112.72	2278.18
312	11.08 11:15:00	0:15:00	0	0	5336.694	1334.173	9031.94	2257.985
312	11.08 11:30:00	0:15:00	0	0	5368.26	1342.065	9000.373	2250.093
312	11.08 11:45:00	0:15:00	0	0	5478.121	1369.53	8890.513	2222.628
312	11.08 12:00:00	0:15:00	0	0	5497.508	1374.377	8871.125	2217.781
312	11.08 12:15:00	0:15:00	0.249	0.062	5581.519	1395.38	8786.866	2196.716
312	11.08 12:30:00	0:15:00	20.133	5.033	5604.386	1401.096	8744.115	2186.029
312	11.08 12:45:00	0:15:00	189.398	47.349	5905.881	1476.47	8273.354	2068.339
312	11.08 13:00:00	0:15:00	381.53	95.382	6479.792	1619.948	7507.312	1876.828
312	11.08 13:15:00	0:15:00	600.257	150.064	7191.649	1797.912	6576.727	1644.182
312	11.08 13:30:00	0:15:00	837.377	209.344	7876.166	1969.041	5655.091	1413.773
312	11.08 13:45:00	0:15:00	1109.295	277.324	8677.999	2169.5	4581.339	1145.335
312	11.08 14:00:00	0:15:00	1413.027	353.257	9213.384	2303.346	3742.223	935.556
312	11.08 14:15:00	0:15:00	1771.69	442.922	9978.432	2494.608	2618.512	654.628
312	11.08 14:30:00	0:15:00	2170.37	542.592	10860.3	2715.075	1337.964	334.491
312	11.08 14:45:00	0:15:00	2658.032	664.508	10668.665	2667.166	1041.937	260.484
312	11.08 15:00:00	0:15:00	3394.745	848.686	9992.351	2498.088	981.538	245.385
312	11.08 15:15:00	0:15:00	4345.959	1086.49	9404.77	2351.192	617.904	154.476
312	11.08 15:30:00	0:15:00	5290.711	1322.678	8717.768	2179.442	360.154	90.039
312	11.08 15:45:00	0:15:00	6328.422	1582.106	7973.599	1993.4	66.612	16.653
312	11.08 16:00:00	0:09:00	7407.145	1111.072	6961.488	1044.223	0	0
312	11.08 16:03:00	0:01:48	7566.965	227.009	6801.668	204.05	0	0
319	11.15 07:51:00	0:04:48	1222.884	97.831	4523.924	361.914	8621.826	689.746
319	11.15 08:00:00	0:12:00	245.074	49.015	5194.521	1038.904	8929.038	1785.808
319	11.15 08:15:00	0:15:00	0.249	0.062	5659.565	1414.891	8708.82	2177.205
319	11.15 08:30:00	0:15:00	0.249	0.062	5930.24	1482.56	8438.145	2109.536
319	11.15 08:45:00	0:15:00	0	0	6144.493	1536.123	8224.141	2056.035
319	11.15 09:00:00	0:15:00	0	0	6179.042	1544.76	8189.592	2047.398
319	11.15 09:15:00	0:15:00	0	0	6185.504	1546.376	8183.129	2045.782
319	11.15 09:30:00	0:15:00	0	0	6105.221	1526.305	8263.412	2065.853
319	11.15 09:45:00	0:15:00	0	0	6001.574	1500.394	8367.059	2091.765
319	11.15 10:00:00	0:15:00	0	0	5825.101	1456.275	8543.532	2135.883
319	11.15 10:15:00	0:15:00	0	0	5725.68	1431.42	8642.953	2160.738
319	11.15 10:30:00	0:15:00	0	0	5646.64	1411.66	8721.993	2180.498
319	11.15 10:45:00	0:15:00	0	0	5705.299	1426.325	8663.335	2165.834
319	11.15 11:00:00	0:15:00	0	0	5724.934	1431.234	8643.699	2160.925
319	11.15 11:15:00	0:15:00	0	0	5805.714	1451.429	8562.919	2140.73
319	11.15 11:30:00	0:15:00	0	0	5846.477	1461.619	8522.156	2130.539
319	11.15 11:45:00	0:15:00	0	0	5964.789	1491.197	8403.845	2100.961
319	11.15 12:00:00	0:15:00	0	0	5976.471	1494.118	8392.163	2098.041
319	11.15 12:15:00	0:15:00	0.249	0.062	6070.424	1517.606	8297.961	2074.49
319	11.15 12:30:00	0:15:00	31.815	7.954	6090.06	1522.515	8246.759	2061.69
319	11.15 12:45:00	0:15:00	210.028	52.507	6505.144	1626.286	7653.462	1913.365



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
319	11.15 13:00:00	0:15:00	414.09	103.523	7163.562	1790.891	6790.981	1697.745
319	11.15 13:15:00	0:15:00	647.731	161.933	7985.281	1996.32	5735.622	1433.906
319	11.15 13:30:00	0:15:00	903.244	225.811	8780.9	2195.225	4684.489	1171.122
319	11.15 13:45:00	0:15:00	1195.046	298.761	9569.561	2392.39	3604.027	901.007
319	11.15 14:00:00	0:15:00	1521.645	380.411	10098.483	2524.621	2748.505	687.126
319	11.15 14:15:00	0:15:00	1916.348	479.087	10846.629	2711.657	1605.656	401.414
319	11.15 14:30:00	0:15:00	2338.889	584.722	11459.314	2864.828	570.43	142.608
319	11.15 14:45:00	0:15:00	2910.811	727.703	10719.618	2679.905	738.204	184.551
319	11.15 15:00:00	0:15:00	3744.46	936.115	9963.518	2490.88	660.655	165.164
319	11.15 15:15:00	0:15:00	4638.01	1159.502	9372.707	2343.177	357.917	89.479
319	11.15 15:30:00	0:15:00	5491.543	1372.886	8732.681	2183.17	144.41	36.102
319	11.15 15:45:00	0:13:48	6397.272	1471.373	7971.362	1833.413	0	0
319	11.15 15:57:36	0:06:36	7126.279	783.891	7242.354	796.659	0	0
326	11.22 07:57:36	0:01:12	2302.103	46.042	3705.685	74.114	8360.845	167.217
326	11.22 08:00:00	0:09:00	1656.858	248.529	4272.387	640.858	8439.388	1265.908
326	11.22 08:15:00	0:15:00	21.127	5.282	5882.02	1470.505	8465.486	2116.372
326	11.22 08:30:00	0:15:00	0.249	0.062	6198.18	1549.545	8170.204	2042.551
326	11.22 08:45:00	0:15:00	0	0	6518.566	1629.641	7850.067	1962.517
326	11.22 09:00:00	0:15:00	0	0	6597.109	1649.277	7771.524	1942.881
326	11.22 09:15:00	0:15:00	0	0	6633.895	1658.474	7734.739	1933.685
326	11.22 09:30:00	0:15:00	0	0	6578.964	1644.741	7789.669	1947.417
326	11.22 09:45:00	0:15:00	0	0	6505.393	1626.348	7863.241	1965.81
326	11.22 10:00:00	0:15:00	0	0	6299.839	1574.96	8068.795	2017.199
326	11.22 10:15:00	0:15:00	0	0	6195.198	1548.799	8173.436	2043.359
326	11.22 10:30:00	0:15:00	0	0	6079.62	1519.905	8289.013	2072.253
326	11.22 10:45:00	0:15:00	0	0	6126.348	1531.587	8242.285	2060.571
326	11.22 11:00:00	0:15:00	0	0	6144.493	1536.123	8224.141	2056.035
326	11.22 11:15:00	0:15:00	0	0	6233.972	1558.493	8134.661	2033.665
326	11.22 11:30:00	0:15:00	0	0	6281.943	1570.486	8086.69	2021.673
326	11.22 11:45:00	0:15:00	0	0	6412.434	1603.108	7956.2	1989.05
326	11.22 12:00:00	0:15:00	0	0	6418.399	1604.6	7950.234	1987.559
326	11.22 12:15:00	0:15:00	0.249	0.062	6516.826	1629.207	7851.559	1962.89
326	11.22 12:30:00	0:15:00	33.058	8.264	6531.491	1632.873	7804.085	1951.021
326	11.22 12:45:00	0:15:00	219.721	54.93	7019.401	1754.85	7129.511	1782.378
326	11.22 13:00:00	0:15:00	433.975	108.494	7747.912	1936.978	6186.747	1546.687
326	11.22 13:15:00	0:15:00	678.8	169.7	8687.941	2171.985	5001.892	1250.473
326	11.22 13:30:00	0:15:00	946.492	236.623	9493.752	2373.438	3928.389	982.097
326	11.22 13:45:00	0:15:00	1258.924	314.731	10187.465	2546.866	2922.244	730.561
326	11.22 14:00:00	0:15:00	1606.899	401.725	10725.335	2681.334	2036.399	509.1
326	11.22 14:15:00	0:15:00	2026.706	506.676	11427.002	2856.75	914.926	228.731
326	11.22 14:30:00	0:15:00	2480.068	620.017	11518.967	2879.742	369.599	92.4
326	11.22 14:45:00	0:15:00	3117.856	779.464	10745.468	2686.367	505.309	126.327
326	11.22 15:00:00	0:15:00	3970.395	992.599	9960.039	2490.01	438.2	109.55
326	11.22 15:15:00	0:15:00	4801.558	1200.389	9378.423	2344.606	188.652	47.163
326	11.22 15:30:00	0:15:00	5550.947	1387.737	8767.479	2191.87	50.208	12.552
326	11.22 15:45:00	0:12:00	6277.469	1255.494	8091.164	1618.233	0	0
326	11.22 15:54:00	0:04:48	6771.345	541.708	7597.288	607.783	0	0
333	11.29 08:04:12	0:05:24	3356.219	302.06	3048.51	274.366	7963.905	716.751
333	11.29 08:15:00	0:12:36	234.635	49.273	5883.263	1235.485	8250.736	1732.655
333	11.29 08:30:00	0:15:00	0	0	6416.659	1604.165	7951.974	1987.994
333	11.29 08:45:00	0:15:00	0	0	6783.524	1695.881	7585.109	1896.277
333	11.29 09:00:00	0:15:00	0	0	6954.032	1738.508	7414.602	1853.65
333	11.29 09:15:00	0:15:00	0	0	7012.69	1753.173	7355.943	1838.986
333	11.29 09:30:00	0:15:00	0	0	6957.014	1739.254	7411.619	1852.905
333	11.29 09:45:00	0:15:00	0	0	6924.205	1731.051	7444.428	1861.107
333	11.29 10:00:00	0:15:00	0	0	6724.12	1681.03	7644.514	1911.128
333	11.29 10:15:00	0:15:00	0	0	6598.6	1649.65	7770.033	1942.508



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
333	11.29 10:30:00	0:15:00	0	0	6463.387	1615.847	7905.246	1976.312
333	11.29 10:45:00	0:15:00	0	0	6485.757	1621.439	7882.876	1970.719
333	11.29 11:00:00	0:15:00	0	0	6499.676	1624.919	7868.957	1967.239
333	11.29 11:15:00	0:15:00	0	0	6598.103	1649.526	7770.53	1942.633
333	11.29 11:30:00	0:15:00	0	0	6646.074	1661.518	7722.559	1930.64
333	11.29 11:45:00	0:15:00	0	0	6779.05	1694.763	7589.583	1897.396
333	11.29 12:00:00	0:15:00	0.249	0.062	6809.871	1702.468	7558.514	1889.629
333	11.29 12:15:00	0:15:00	0.249	0.062	6898.107	1724.527	7470.278	1867.569
333	11.29 12:30:00	0:15:00	24.358	6.09	6923.46	1730.865	7420.815	1855.204
333	11.29 12:45:00	0:15:00	214.005	53.501	7390.989	1847.747	6763.64	1690.91
333	11.29 13:00:00	0:15:00	435.714	108.929	8136.153	2034.038	5796.766	1449.192
333	11.29 13:15:00	0:15:00	689.985	172.496	8993.911	2248.478	4684.738	1171.184
333	11.29 13:30:00	0:15:00	970.353	242.588	9811.652	2452.913	3586.628	896.657
333	11.29 13:45:00	0:15:00	1294.218	323.555	10533.7	2633.425	2540.715	635.179
333	11.29 14:00:00	0:15:00	1658.847	414.712	10993.276	2748.319	1716.511	429.128
333	11.29 14:15:00	0:15:00	2093.318	523.33	11574.146	2893.536	701.17	175.292
333	11.29 14:30:00	0:15:00	2566.316	641.579	11536.862	2884.216	265.455	66.364
333	11.29 14:45:00	0:15:00	3246.358	811.59	10776.289	2694.072	345.987	86.497
333	11.29 15:00:00	0:15:00	4126.983	1031.746	9962.027	2490.507	279.623	69.906
333	11.29 15:15:00	0:15:00	4844.558	1211.139	9434.845	2358.711	89.231	22.308
333	11.29 15:30:00	0:15:00	5491.543	1372.886	8867.397	2216.849	9.694	2.423
333	11.29 15:45:00	0:10:48	6126.845	1102.832	8241.788	1483.522	0	0
333	11.29 15:51:36	0:03:00	6487.248	324.362	7881.385	394.069	0	0
340	12.06 08:10:12	0:02:24	4094.174	163.767	2695.563	107.823	7578.895	303.156
340	12.06 08:15:00	0:10:12	2636.159	448.147	3952.499	671.925	7779.975	1322.596
340	12.06 08:30:00	0:15:00	0.249	0.062	6549.635	1637.409	7818.75	1954.687
340	12.06 08:45:00	0:15:00	0	0	6913.766	1728.442	7454.867	1863.717
340	12.06 09:00:00	0:15:00	0	0	7189.163	1797.291	7179.47	1794.867
340	12.06 09:15:00	0:15:00	0	0	7299.77	1824.942	7068.864	1767.216
340	12.06 09:30:00	0:15:00	0	0	7268.452	1817.113	7100.181	1775.045
340	12.06 09:45:00	0:15:00	0	0	7244.839	1811.21	7123.794	1780.948
340	12.06 10:00:00	0:15:00	0	0	7077.066	1769.266	7291.568	1822.892
340	12.06 10:15:00	0:15:00	0	0	6940.858	1735.215	7427.775	1856.944
340	12.06 10:30:00	0:15:00	0	0	6767.865	1691.966	7600.768	1900.192
340	12.06 10:45:00	0:15:00	0	0	6764.882	1691.221	7603.751	1900.938
340	12.06 11:00:00	0:15:00	0	0	6770.848	1692.712	7597.786	1899.446
340	12.06 11:15:00	0:15:00	0	0	6875.24	1718.81	7493.393	1873.348
340	12.06 11:30:00	0:15:00	0	0	6928.928	1732.232	7439.705	1859.926
340	12.06 11:45:00	0:15:00	0	0	7077.314	1769.329	7291.319	1822.83
340	12.06 12:00:00	0:15:00	0.249	0.062	7107.886	1776.972	7260.498	1815.125
340	12.06 12:15:00	0:15:00	0.249	0.062	7188.666	1797.167	7179.718	1794.93
340	12.06 12:30:00	0:15:00	7.457	1.864	7217.499	1804.375	7143.678	1785.92
340	12.06 12:45:00	0:15:00	195.86	48.965	7602.508	1900.627	6570.265	1642.566
340	12.06 13:00:00	0:15:00	421.05	105.262	8331.267	2082.817	5616.316	1404.079
340	12.06 13:15:00	0:15:00	678.8	169.7	9164.419	2291.105	4525.415	1131.354
340	12.06 13:30:00	0:15:00	964.388	241.097	9973.212	2493.303	3431.033	857.758
340	12.06 13:45:00	0:15:00	1297.45	324.362	10661.954	2665.488	2409.23	602.307
340	12.06 14:00:00	0:15:00	1668.54	417.135	11067.593	2766.898	1632.5	408.125
340	12.06 14:15:00	0:15:00	2115.439	528.86	11613.168	2903.292	640.025	160.006
340	12.06 14:30:00	0:15:00	2596.391	649.098	11583.093	2895.773	189.149	47.287
340	12.06 14:45:00	0:15:00	3288.861	822.215	10823.265	2705.816	256.507	64.127
340	12.06 15:00:00	0:15:00	4171.723	1042.931	10021.928	2505.482	174.982	43.745
340	12.06 15:15:00	0:15:00	4789.379	1197.345	9535.261	2383.815	43.994	10.998
340	12.06 15:30:00	0:15:00	5380.191	1345.048	8988.443	2247.111	0	0
340	12.06 15:45:00	0:10:12	5944.159	1010.507	8424.475	1432.161	0	0
340	12.06 15:51:00	0:03:00	6272.995	313.65	8095.638	404.782	0	0
347	12.13 08:15:36	0:07:12	4670.57	560.468	2418.675	290.241	7279.388	873.527



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
347	12.13 08:30:00	0:15:00	304.23	76.057	6302.573	1575.643	7761.831	1940.458
347	12.13 08:45:00	0:15:00	0	0	6955.523	1738.881	7413.11	1853.278
347	12.13 09:00:00	0:15:00	0	0	7302.504	1825.626	7066.129	1766.532
347	12.13 09:15:00	0:15:00	0	0	7472.515	1868.129	6896.119	1724.03
347	12.13 09:30:00	0:15:00	0	0	7458.596	1864.649	6910.038	1727.509
347	12.13 09:45:00	0:15:00	0	0	7454.122	1863.53	6914.512	1728.628
347	12.13 10:00:00	0:15:00	0	0	7338.047	1834.512	7030.586	1757.647
347	12.13 10:15:00	0:15:00	0	0	7177.73	1794.432	7190.903	1797.726
347	12.13 10:30:00	0:15:00	0	0	6981.373	1745.343	7387.261	1846.815
347	12.13 10:45:00	0:15:00	0	0	6948.066	1737.017	7420.567	1855.142
347	12.13 11:00:00	0:15:00	0	0	6951.546	1737.887	7417.087	1854.272
347	12.13 11:15:00	0:15:00	0	0	7048.731	1762.183	7319.903	1829.976
347	12.13 11:30:00	0:15:00	0	0	7094.713	1773.678	7273.92	1818.48
347	12.13 11:45:00	0:15:00	0	0	7239.868	1809.967	7128.765	1782.191
347	12.13 12:00:00	0:15:00	0	0	7281.874	1820.468	7086.759	1771.69
347	12.13 12:15:00	0:15:00	0.249	0.062	7373.839	1843.46	6994.546	1748.636
347	12.13 12:30:00	0:15:00	0.497	0.124	7399.44	1849.86	6968.696	1742.174
347	12.13 12:45:00	0:15:00	163.548	40.887	7661.664	1915.416	6543.421	1635.855
347	12.13 13:00:00	0:15:00	385.258	96.315	8381.972	2095.493	5601.403	1400.351
347	12.13 13:15:00	0:15:00	644.748	161.187	9198.968	2299.742	4524.918	1131.229
347	12.13 13:30:00	0:15:00	930.087	232.522	9992.848	2498.212	3445.698	861.425
347	12.13 13:45:00	0:15:00	1261.409	315.352	10711.416	2677.854	2395.808	598.952
347	12.13 14:00:00	0:15:00	1630.014	407.504	11066.848	2766.712	1671.771	417.943
347	12.13 14:15:00	0:15:00	2080.145	520.036	11575.388	2893.847	713.1	178.275
347	12.13 14:30:00	0:15:00	2562.09	640.523	11700.659	2925.165	105.884	26.471
347	12.13 14:45:00	0:15:00	3233.185	808.296	10918.71	2729.677	216.739	54.185
347	12.13 15:00:00	0:15:00	4090.943	1022.736	10137.754	2534.439	139.936	34.984
347	12.13 15:15:00	0:15:00	4697.414	1174.353	9646.861	2411.715	24.358	6.09
347	12.13 15:30:00	0:15:00	5249.203	1312.301	9119.43	2279.858	0	0
347	12.13 15:45:00	0:10:48	5754.015	1035.723	8614.618	1550.631	0	0
347	12.13 15:52:11	0:03:36	6148.47	368.908	8220.164	493.21	0	0
354	12.20 08:19:48	0:04:48	4786.893	382.951	2396.554	191.724	7185.187	574.815
354	12.20 08:30:00	0:12:36	1625.043	341.259	5071.736	1065.064	7671.854	1611.089
354	12.20 08:45:00	0:15:00	0	0	6927.188	1731.797	7441.445	1860.361
354	12.20 09:00:00	0:15:00	0	0	7297.284	1824.321	7071.349	1767.837
354	12.20 09:15:00	0:15:00	0	0	7522.722	1880.681	6845.911	1711.478
354	12.20 09:30:00	0:15:00	0	0	7529.682	1882.42	6838.951	1709.738
354	12.20 09:45:00	0:15:00	0	0	7538.878	1884.72	6829.755	1707.439
354	12.20 10:00:00	0:15:00	0	0	7447.659	1861.915	6920.974	1730.244
354	12.20 10:15:00	0:15:00	0	0	7298.776	1824.694	7069.858	1767.464
354	12.20 10:30:00	0:15:00	0	0	7093.719	1773.43	7274.914	1818.729
354	12.20 10:45:00	0:15:00	0	0	7026.361	1756.59	7342.272	1835.568
354	12.20 11:00:00	0:15:00	0	0	7017.661	1754.415	7350.972	1837.743
354	12.20 11:15:00	0:15:00	0	0	7106.395	1776.599	7262.238	1815.56
354	12.20 11:30:00	0:15:00	0	0	7148.898	1787.224	7219.736	1804.934
354	12.20 11:45:00	0:15:00	0	0	7286.348	1821.587	7082.285	1770.571
354	12.20 12:00:00	0:15:00	0	0	7343.515	1835.879	7025.118	1756.28
354	12.20 12:15:00	0:15:00	0	0	7435.729	1858.932	6932.905	1733.226
354	12.20 12:30:00	0:15:00	0.249	0.062	7465.555	1866.389	6902.83	1725.707
354	12.20 12:45:00	0:15:00	122.04	30.51	7588.092	1897.023	6658.502	1664.625
354	12.20 13:00:00	0:15:00	339.773	84.943	8296.967	2074.242	5731.894	1432.973
354	12.20 13:15:00	0:15:00	593.049	148.262	9101.037	2275.259	4674.547	1168.637
354	12.20 13:30:00	0:15:00	873.417	218.354	9880.501	2470.125	3614.715	903.679
354	12.20 13:45:00	0:15:00	1198.525	299.631	10678.358	2669.59	2491.75	622.937
354	12.20 14:00:00	0:15:00	1565.39	391.348	11024.345	2756.086	1778.898	444.724
354	12.20 14:15:00	0:15:00	2002.596	500.649	11482.429	2870.607	883.608	220.902
354	12.20 14:30:00	0:15:00	2476.091	619.023	11838.607	2959.652	53.936	13.484



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

Summary of Results - 1979 Mission Street - RAISED PLAYGROUND - Upper Level Only - Marshall Elementary School

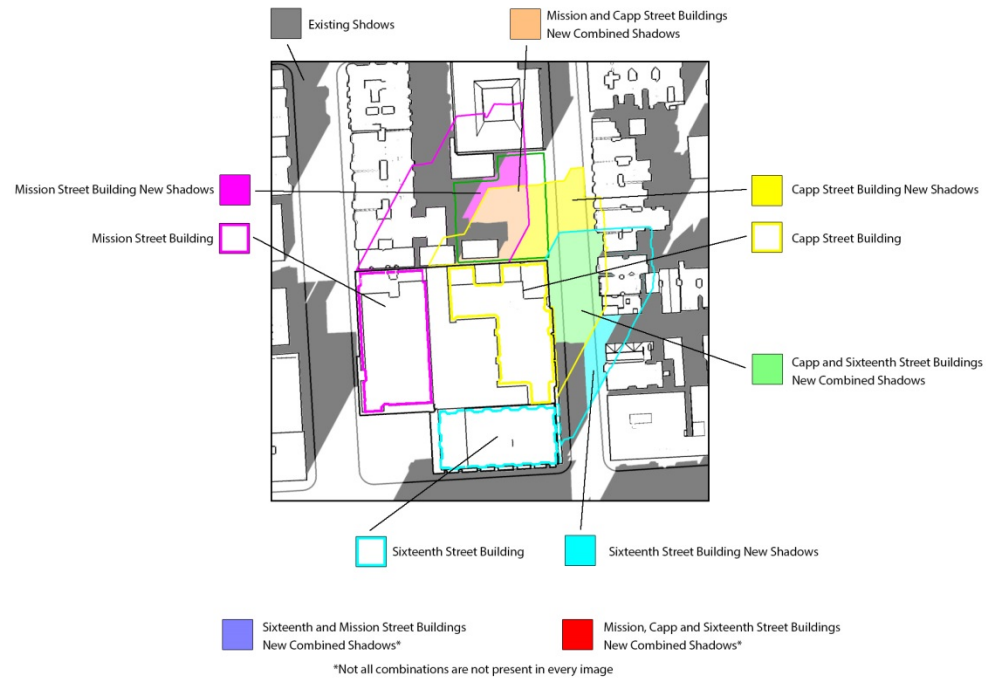
DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
354	12.20 14:45:00	0:15:00	3103.44	775.86	11063.119	2765.78	202.074	50.519
354	12.20 15:00:00	0:15:00	3932.117	983.029	10290.863	2572.716	145.652	36.413
354	12.20 15:15:00	0:15:00	4582.831	1145.708	9751.751	2437.938	34.052	8.513
354	12.20 15:30:00	0:15:00	5128.157	1282.039	9240.476	2310.119	0	0
354	12.20 15:45:00	0:12:36	5593.201	1174.572	8775.432	1842.841	0	0
354	12.20 15:54:36	0:04:48	6101.493	488.119	8267.14	661.371	0	0

EXHIBIT I.1

1979 Mission Street Shadow Projection Graphics

ALTERNATIVE D

Reduced Shadow Alternative 1
(Reduced Capp Component, Sculpted
northeast side)



1979 Mission Street
Shadow Projections Key



1979 Mission Street
June 21 Sunrise +1 Hour

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
June 21 7:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
June 21 8:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 9:45 am

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 10:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows

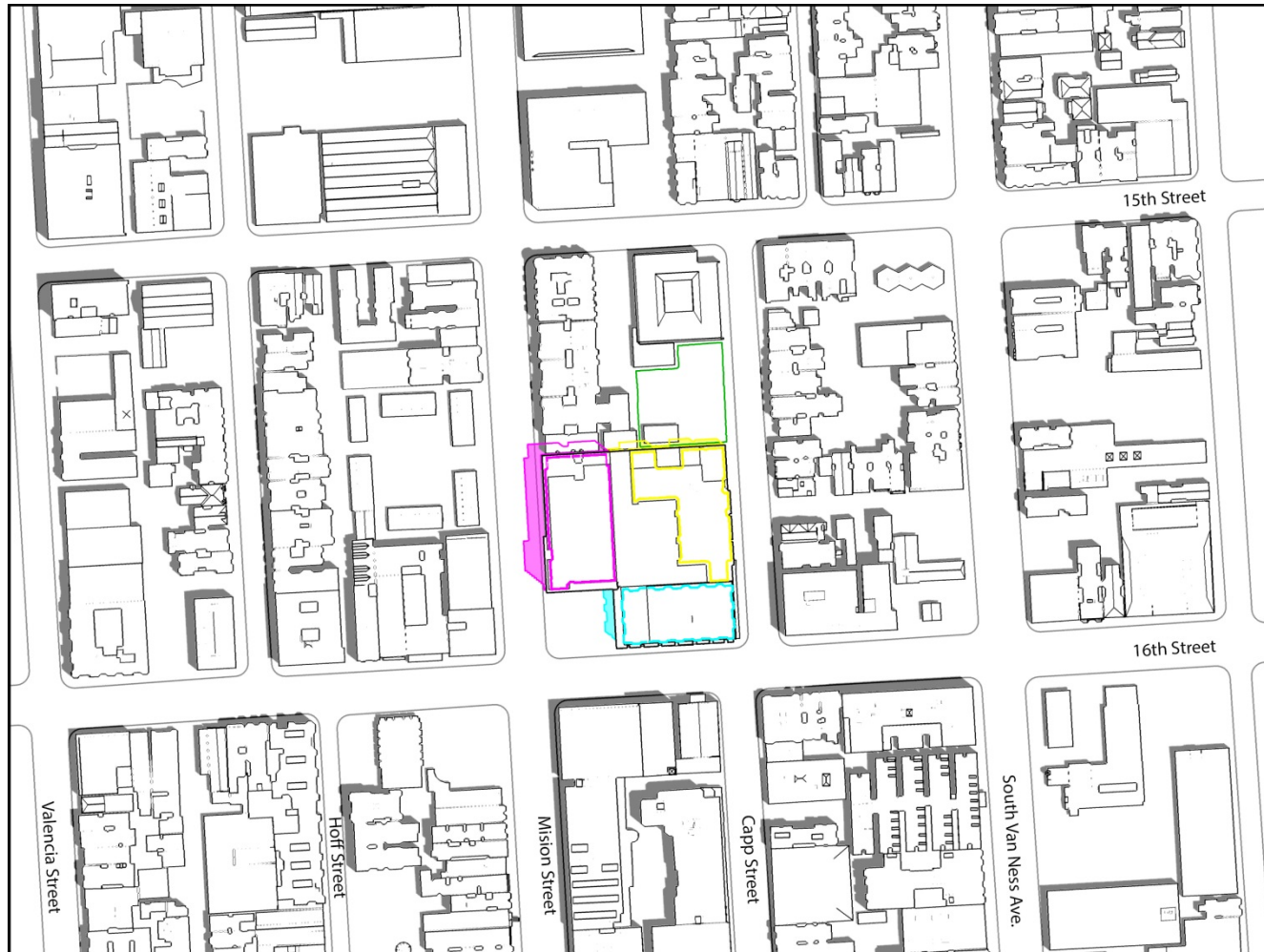




1979 Mission Street
June 21 11:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 12:00 noon

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 1:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 2:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 3:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 4:00 pm

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 5:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 6:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 7:00 pm

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 Sunset -1 Hour

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
June 28 9:45 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 Sunrise +1 Hour

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 8:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
September 20 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |

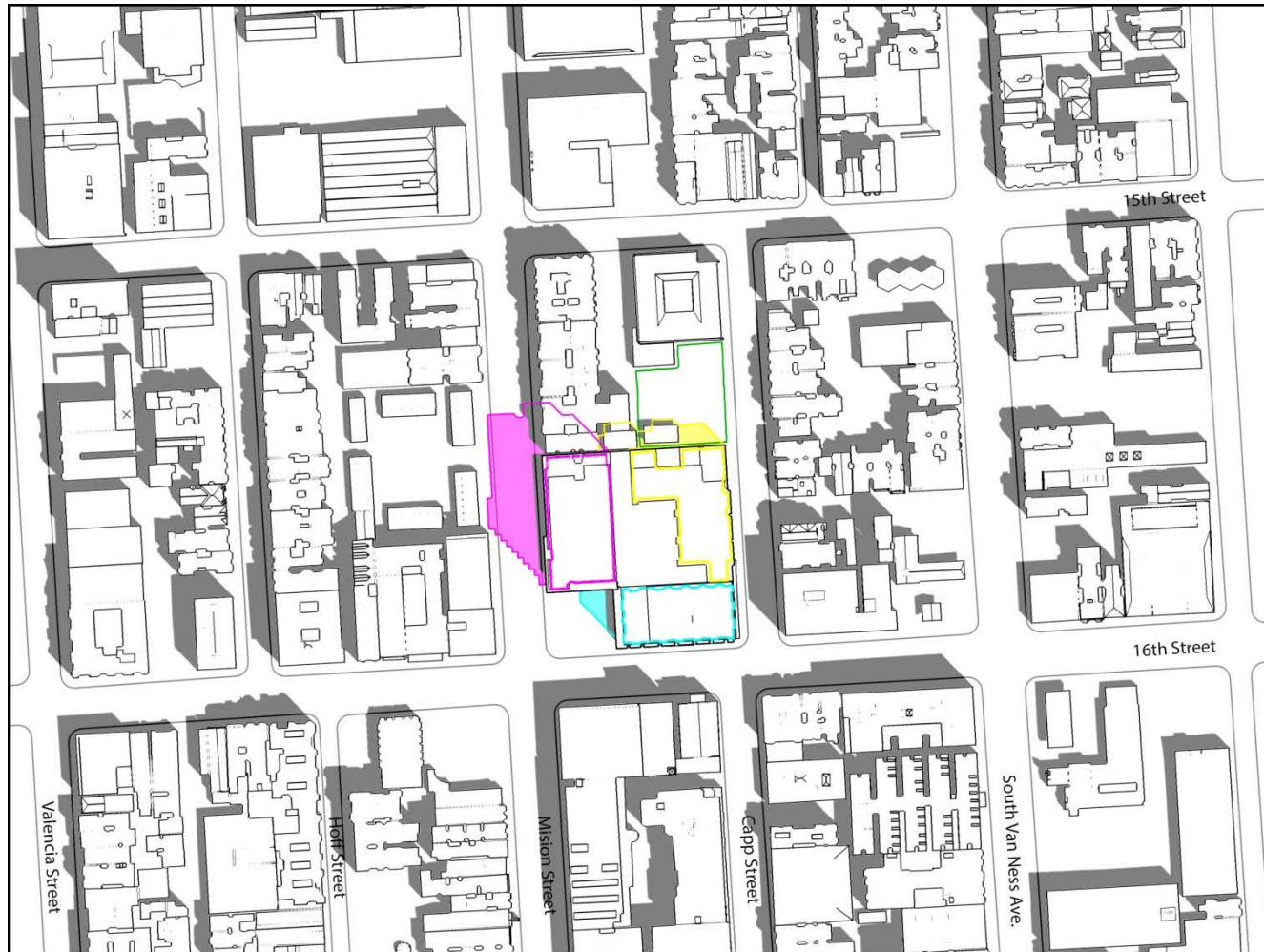




1979 Mission Street
September 20 10:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Combined Shadows
- Existing Shadows





1979 Mission Street
September 20 11:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 12:00 noon

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 1:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
September 20 2:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 3:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 4:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 5:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 6:00 pm

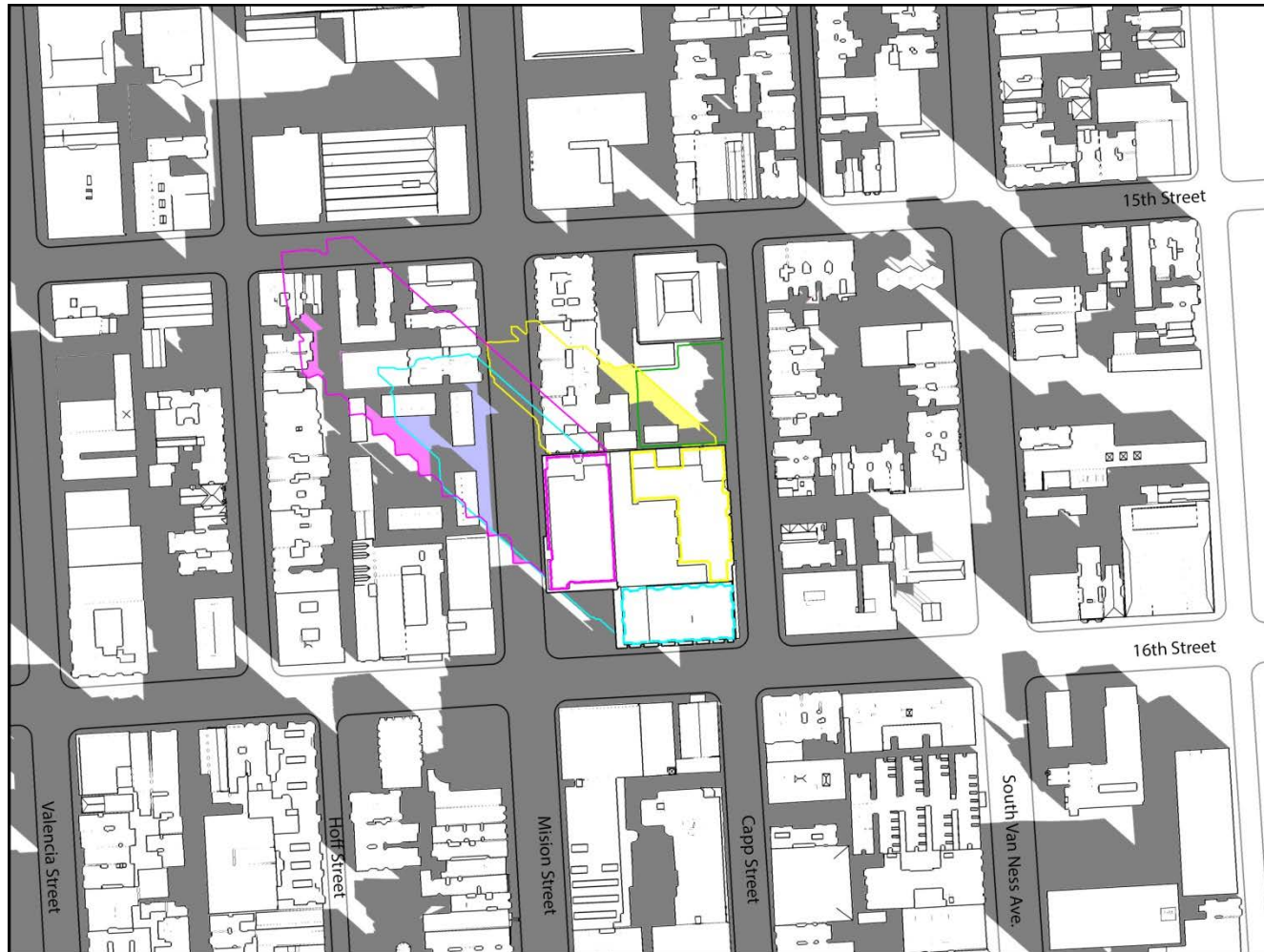
- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
September 20 Sunset -1 Hour

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
November 29 8:30 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
December 20 Sunrise +1 Hour

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 10:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 11:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |

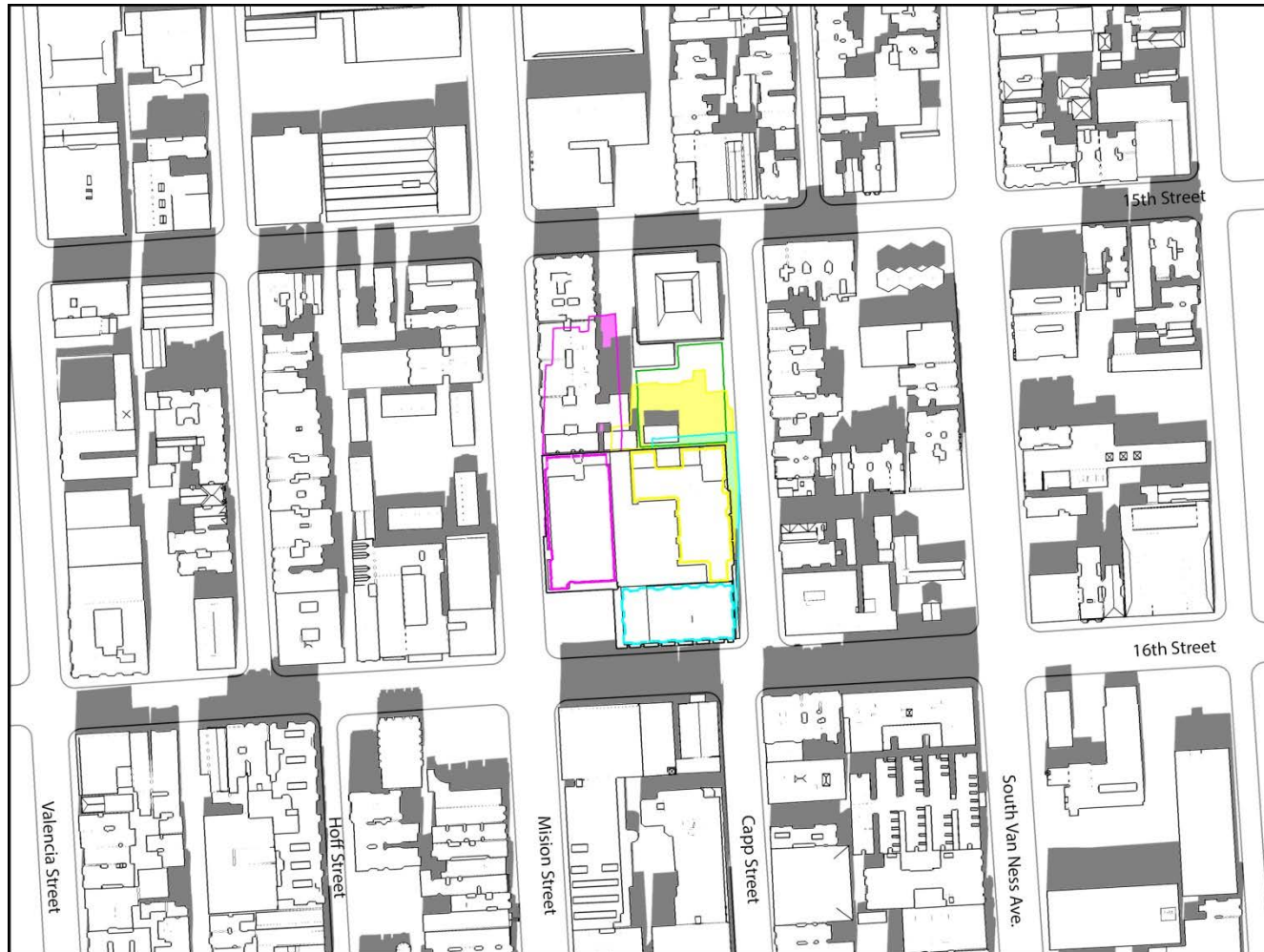




1979 Mission Street
December 20 12:00 noon

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 12:15 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteen Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 1:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 2:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 2:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 3:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 Sunset -1 Hour

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows



EXHIBIT I.2

Summary of Results - 1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

cadp annualized net new shadow	9,276,878.05 Sq ft hrs
Annual Available Sunlight (AAS), based on City's AAS Factor	54,615,712.97 Sq ft hrs
Annual Shadow Increase as a Percentage of AAS	16.986%

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
21-Jun	None	06.21 09:15:00	0:15:00	1,311.45	327.86	29.03	7.26	
		06.21 09:30:00	0:15:00	1,328.58	332.14	175.69	43.92	
		06.21 09:45:00	0:15:00	1,346.19	336.55	316.14	79.04	
		06.21 10:00:00	0:15:00	1,361.08	340.27	425.32	106.33	
		06.21 10:15:00	0:15:00	1,373.74	343.44	501.75	125.44	
		06.21 10:30:00	0:15:00	1,384.66	346.16	542.94	135.74	
		06.21 10:45:00	0:15:00	1,388.63	347.16	592.57	148.14	
		06.21 11:00:00	0:15:00	1,375.48	343.87	637.74	159.43	
		06.21 11:15:00	0:15:00	1,366.05	341.51	701.01	175.25	
		06.21 11:30:00	0:15:00	1,351.65	337.91	742.70	185.68	
		06.21 11:45:00	0:15:00	1,339.74	334.94	793.57	198.39	
		06.21 12:00:00	0:15:00	1,325.35	331.34	814.42	203.60	
		06.21 12:15:00	0:15:00	1,314.43	328.61	862.31	215.58	
		06.21 12:30:00	0:15:00	1,296.81	324.20	869.75	217.44	
		06.21 12:45:00	0:15:00	1,285.65	321.41	912.68	228.17	
		06.21 13:00:00	0:15:00	1,267.78	316.95	902.26	225.57	2,324.76
		06.21 13:15:00	0:15:00	1,266.79	316.70	939.73	234.93	
		06.21 13:30:00	0:15:00	1,289.62	322.40	917.89	229.47	
		06.21 13:45:00	0:15:00	1,339.25	334.81	915.16	228.79	
		06.21 14:00:00	0:15:00	1,404.51	351.13	858.34	214.59	
		06.21 14:15:00	0:15:00	1,599.30	399.83	833.77	208.44	
		06.21 14:30:00	0:15:00	1,815.94	453.98	770.74	192.69	
		06.21 14:45:00	0:15:00	2,036.79	509.20	735.51	183.88	
		06.21 15:00:00	0:15:00	2,257.88	564.47	671.73	167.93	
		06.21 15:15:00	0:15:00	2,464.59	616.15	625.08	156.27	
		06.21 15:30:00	0:15:00	2,660.13	665.03	543.69	135.92	
		06.21 15:45:00	0:15:00	2,867.08	716.77	435.25	108.81	
		06.21 16:00:00	0:15:00	3,068.58	767.14	299.51	74.88	
		06.21 16:15:00	0:15:00	3,275.53	818.88	149.14	37.28	4,628.86
28-Jun	14-Jun	06.28 09:15:00	0:15:00	1,310.96	327.74	26.30	6.58	
		06.28 09:30:00	0:15:00	1,328.58	332.14	175.69	43.92	
		06.28 09:45:00	0:15:00	1,345.70	336.42	318.62	79.66	
		06.28 10:00:00	0:15:00	1,361.08	340.27	429.54	107.39	
		06.28 10:15:00	0:15:00	1,373.99	343.50	504.98	126.24	
		06.28 10:30:00	0:15:00	1,385.40	346.35	546.67	136.67	
		06.28 10:45:00	0:15:00	1,391.61	347.90	594.56	148.64	
		06.28 11:00:00	0:15:00	1,379.20	344.80	640.96	160.24	
		06.28 11:15:00	0:15:00	1,368.28	342.07	703.00	175.75	
		06.28 11:30:00	0:15:00	1,354.63	338.66	746.18	186.54	
		06.28 11:45:00	0:15:00	1,342.72	335.68	798.54	199.63	
		06.28 12:00:00	0:15:00	1,328.82	332.21	820.62	205.16	
		06.28 12:15:00	0:15:00	1,317.41	329.35	869.51	217.38	
		06.28 12:30:00	0:15:00	1,301.03	325.26	876.70	219.18	
		06.28 12:45:00	0:15:00	1,287.88	321.97	920.13	230.03	
		06.28 13:00:00	0:15:00	1,270.01	317.50	912.68	228.17	
		06.28 13:15:00	0:15:00	1,268.03	317.01	947.92	236.98	
		06.28 13:30:00	0:15:00	1,288.13	322.03	930.05	232.51	
		06.28 13:45:00	0:15:00	1,335.77	333.94	928.81	232.20	
		06.28 14:00:00	0:15:00	1,397.31	349.33	871.24	217.81	
		06.28 14:15:00	0:15:00	1,582.68	395.67	849.16	212.29	
		06.28 14:30:00	0:15:00	1,800.55	450.14	785.38	196.35	
		06.28 14:45:00	0:15:00	2,022.14	505.54	748.66	187.16	
		06.28 15:00:00	0:15:00	2,244.98	561.25	685.88	171.47	
		06.28 15:15:00	0:15:00	2,449.45	612.36	641.21	160.30	
		06.28 15:30:00	0:15:00	2,650.70	662.68	566.02	141.51	
		06.28 15:45:00	0:15:00	2,855.42	713.86	462.05	115.51	
		06.28 16:00:00	0:15:00	3,055.67	763.92	327.80	81.95	
		06.28 16:15:00	0:15:00	3,269.08	817.27	181.40	45.35	
		06.28 16:30:00	0:15:00	3,471.57	867.89	5.21	1.30	4,703.86
5-Jul	7-Jul	07.05 09:15:00	0:15:00	1,314.93	328.73	51.37	12.84	
		07.05 09:30:00	0:15:00	1,333.04	333.26	206.95	51.74	
		07.05 09:45:00	0:15:00	1,349.17	337.29	355.35	88.84	
		07.05 10:00:00	0:15:00	1,364.06	341.02	463.04	115.76	
		07.05 10:15:00	0:15:00	1,377.71	344.43	524.58	131.15	
		07.05 10:30:00	0:15:00	1,388.63	347.16	565.53	141.38	
		07.05 10:45:00	0:15:00	1,397.56	349.39	616.15	154.04	
		07.05 11:00:00	0:15:00	1,386.64	346.66	661.06	165.27	
		07.05 11:15:00	0:15:00	1,373.24	343.31	724.84	181.21	
		07.05 11:30:00	0:15:00	1,360.59	340.15	769.75	192.44	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		07.05 11:45:00	0:15:00	1,349.17	337.29	821.61	205.40	
		07.05 12:00:00	0:15:00	1,334.28	333.57	845.44	211.36	
		07.05 12:15:00	0:15:00	1,324.61	331.15	895.06	223.77	
		07.05 12:30:00	0:15:00	1,307.98	327.00	905.24	226.31	
		07.05 12:45:00	0:15:00	1,293.59	323.40	948.66	237.17	
		07.05 13:00:00	0:15:00	1,275.97	318.99	941.72	235.43	
		07.05 13:15:00	0:15:00	1,271.01	317.75	979.68	244.92	
		07.05 13:30:00	0:15:00	1,289.87	322.47	962.81	240.70	
		07.05 13:45:00	0:15:00	1,337.26	334.32	963.30	240.83	
		07.05 14:00:00	0:15:00	1,397.56	349.39	905.24	226.31	
		07.05 14:15:00	0:15:00	1,578.46	394.62	884.64	221.16	
		07.05 14:30:00	0:15:00	1,790.38	447.59	819.88	204.97	
		07.05 14:45:00	0:15:00	2,016.69	504.17	780.92	195.23	
		07.05 15:00:00	0:15:00	2,241.26	560.31	716.90	179.22	
		07.05 15:15:00	0:15:00	2,453.17	613.29	672.97	168.24	
		07.05 15:30:00	0:15:00	2,655.17	663.79	603.00	150.75	
		07.05 15:45:00	0:15:00	2,861.38	715.34	520.36	130.09	
		07.05 16:00:00	0:15:00	3,067.59	766.90	388.85	97.21	
		07.05 16:15:00	0:15:00	3,283.72	820.93	247.90	61.98	
		07.05 16:30:00	0:15:00	3,490.92	872.73	63.53	15.88	
12-Jul	31-May	07.12 09:15:00	0:15:00	1,321.13	330.28	108.19	27.05	
		07.12 09:30:00	0:15:00	1,339.25	334.81	268.99	67.25	
		07.12 09:45:00	0:15:00	1,357.86	339.46	421.60	105.40	
		07.12 10:00:00	0:15:00	1,370.26	342.57	507.46	126.87	
		07.12 10:15:00	0:15:00	1,385.40	346.35	561.56	140.39	
		07.12 10:30:00	0:15:00	1,395.58	348.89	602.50	150.63	
		07.12 10:45:00	0:15:00	1,407.24	351.81	651.88	162.97	
		07.12 11:00:00	0:15:00	1,395.33	348.83	699.28	174.82	
		07.12 11:15:00	0:15:00	1,384.16	346.04	763.05	190.76	
		07.12 11:30:00	0:15:00	1,371.26	342.81	808.96	202.24	
		07.12 11:45:00	0:15:00	1,360.09	340.02	863.30	215.83	
		07.12 12:00:00	0:15:00	1,344.21	336.05	890.60	222.65	
		07.12 12:15:00	0:15:00	1,331.31	332.83	940.72	235.18	
		07.12 12:30:00	0:15:00	1,314.18	328.55	953.87	238.47	
		07.12 12:45:00	0:15:00	1,302.27	325.57	998.54	249.64	
		07.12 13:00:00	0:15:00	1,282.67	320.67	995.81	248.95	
		07.12 13:15:00	0:15:00	1,276.47	319.12	1,034.27	258.57	
		07.12 13:30:00	0:15:00	1,294.33	323.58	1,019.88	254.97	
		07.12 13:45:00	0:15:00	1,339.99	335.00	1,018.89	254.72	
		07.12 14:00:00	0:15:00	1,405.00	351.25	960.33	240.08	
19-Jul	24-May	07.12 14:15:00	0:15:00	1,583.92	395.98	937.00	234.25	
		07.12 14:30:00	0:15:00	1,797.08	449.27	872.23	218.06	
		07.12 14:45:00	0:15:00	2,024.13	506.03	831.79	207.95	
		07.12 15:00:00	0:15:00	2,253.67	563.42	765.04	191.26	
		07.12 15:15:00	0:15:00	2,467.82	616.95	722.35	180.59	
		07.12 15:30:00	0:15:00	2,675.02	668.75	654.11	163.53	
		07.12 15:45:00	0:15:00	2,888.18	722.04	593.57	148.39	
		07.12 16:00:00	0:15:00	3,098.60	774.65	480.66	120.17	
		07.12 16:15:00	0:15:00	3,322.68	830.67	347.41	86.85	
		07.12 16:30:00	0:15:00	3,542.54	885.63	162.78	40.70	
		07.19 09:00:00	0:15:00	1,309.72	327.43	27.30	6.82	
		07.19 09:15:00	0:15:00	1,331.31	332.83	202.74	50.68	
		07.19 09:30:00	0:15:00	1,348.92	337.23	369.49	92.37	
		07.19 09:45:00	0:15:00	1,366.29	341.57	511.93	127.98	
		07.19 10:00:00	0:15:00	1,381.68	345.42	564.78	141.20	
		07.19 10:15:00	0:15:00	1,394.83	348.71	610.19	152.55	
		07.19 10:30:00	0:15:00	1,406.25	351.56	653.87	163.47	
		07.19 10:45:00	0:15:00	1,417.41	354.35	706.22	176.56	
		07.19 11:00:00	0:15:00	1,408.73	352.18	755.61	188.90	
		07.19 11:15:00	0:15:00	1,398.06	349.51	820.37	205.09	
		07.19 11:30:00	0:15:00	1,381.93	345.48	867.02	216.76	
		07.19 11:45:00	0:15:00	1,371.51	342.88	924.59	231.15	
		07.19 12:00:00	0:15:00	1,355.38	338.84	953.38	238.35	
		07.19 12:15:00	0:15:00	1,344.71	336.18	1,005.74	251.43	
		07.19 12:30:00	0:15:00	1,328.33	332.08	1,022.36	255.59	
		07.19 12:45:00	0:15:00	1,315.67	328.92	1,069.26	267.32	
		07.19 13:00:00	0:15:00	1,296.32	324.08	1,070.50	267.63	
		07.19 13:15:00	0:15:00	1,289.37	322.34	1,111.94	277.99	
		07.19 13:30:00	0:15:00	1,306.49	326.62	1,099.29	274.82	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		07.19 13:45:00	0:15:00	1,353.14	338.29	1,095.57	273.89	
		07.19 14:00:00	0:15:00	1,415.68	353.92	1,035.02	258.76	
		07.19 14:15:00	0:15:00	1,597.32	399.33	1,008.72	252.18	
		07.19 14:30:00	0:15:00	1,818.42	454.60	941.47	235.37	
		07.19 14:45:00	0:15:00	2,051.43	512.86	899.28	224.82	
		07.19 15:00:00	0:15:00	2,282.70	570.67	831.54	207.89	
		07.19 15:15:00	0:15:00	2,497.84	624.46	784.14	196.04	
		07.19 15:30:00	0:15:00	2,715.71	678.93	719.38	179.84	
		07.19 15:45:00	0:15:00	2,940.53	735.13	668.01	167.00	
		07.19 16:00:00	0:15:00	3,156.92	789.23	587.61	146.90	
		07.19 16:15:00	0:15:00	3,389.93	847.48	471.73	117.93	
		07.19 16:30:00	0:15:00	3,618.47	904.62	296.78	74.20	
		07.19 16:45:00	0:15:00	3,862.15	965.54	99.51	24.88	
26-Jul	17-May	07.26 09:00:00	0:15:00	1,340.24	335.06	143.43	35.86	
		07.26 09:15:00	0:15:00	1,344.71	336.18	333.76	83.44	
		07.26 09:30:00	0:15:00	1,362.82	340.71	489.35	122.34	
		07.26 09:45:00	0:15:00	1,380.93	345.23	585.63	146.41	
		07.26 10:00:00	0:15:00	1,395.33	348.83	627.07	156.77	
		07.26 10:15:00	0:15:00	1,407.49	351.87	674.21	168.55	
		07.26 10:30:00	0:15:00	1,419.89	354.97	720.87	180.22	
		07.26 10:45:00	0:15:00	1,429.82	357.46	776.70	194.17	
		07.26 11:00:00	0:15:00	1,425.60	356.40	827.32	206.83	
		07.26 11:15:00	0:15:00	1,414.68	353.67	890.35	222.59	
		07.26 11:30:00	0:15:00	1,399.55	349.89	940.48	235.12	
		07.26 11:45:00	0:15:00	1,387.14	346.78	1,002.26	250.57	
		07.26 12:00:00	0:15:00	1,370.51	342.63	1,036.01	259.00	
		07.26 12:15:00	0:15:00	1,356.62	339.15	1,091.10	272.78	
		07.26 12:30:00	0:15:00	1,340.24	335.06	1,110.95	277.74	
		07.26 12:45:00	0:15:00	1,328.08	332.02	1,162.57	290.64	
		07.26 13:00:00	0:15:00	1,307.98	327.00	1,167.03	291.76	
		07.26 13:15:00	0:15:00	1,300.78	325.20	1,211.45	302.86	
		07.26 13:30:00	0:15:00	1,319.15	329.79	1,201.28	300.32	
		07.26 13:45:00	0:15:00	1,367.29	341.82	1,192.84	298.21	
		07.26 14:00:00	0:15:00	1,434.78	358.70	1,129.81	282.45	
		07.26 14:15:00	0:15:00	1,627.84	406.96	1,098.79	274.70	
		07.26 14:30:00	0:15:00	1,855.89	463.97	1,027.57	256.89	
		07.26 14:45:00	0:15:00	2,088.40	522.10	984.89	246.22	
		07.26 15:00:00	0:15:00	2,324.39	581.10	913.68	228.42	
		07.26 15:15:00	0:15:00	2,550.20	637.55	864.54	216.14	
		07.26 15:30:00	0:15:00	2,777.25	694.31	798.29	199.57	
		07.26 15:45:00	0:15:00	3,009.52	752.38	750.15	187.54	
		07.26 16:00:00	0:15:00	3,242.03	810.51	680.91	170.23	
		07.26 16:15:00	0:15:00	3,484.97	871.24	600.02	150.00	
		07.26 16:30:00	0:15:00	3,731.13	932.78	462.79	115.70	
		07.26 16:45:00	0:15:00	3,991.19	997.80	274.70	68.67	
		07.26 17:00:00	0:15:00	4,396.66	1,099.16	29.28	7.32	
2-Aug	10-May	08.02 08:45:00	0:15:00	1,806.51	451.63	111.17	27.79	
		08.02 09:00:00	0:15:00	1,404.76	351.19	305.96	76.49	
		08.02 09:15:00	0:15:00	1,362.08	340.52	489.59	122.40	
		08.02 09:30:00	0:15:00	1,380.19	345.05	579.42	144.86	
		08.02 09:45:00	0:15:00	1,398.80	349.70	652.63	163.16	
		08.02 10:00:00	0:15:00	1,411.46	352.86	703.50	175.87	
		08.02 10:15:00	0:15:00	1,425.10	356.28	749.15	187.29	
		08.02 10:30:00	0:15:00	1,435.78	358.94	802.51	200.63	
		08.02 10:45:00	0:15:00	1,448.18	362.05	862.06	215.52	
		08.02 11:00:00	0:15:00	1,444.71	361.18	912.68	228.17	
		08.02 11:15:00	0:15:00	1,431.56	357.89	979.43	244.86	
		08.02 11:30:00	0:15:00	1,418.16	354.54	1,031.79	257.95	
		08.02 11:45:00	0:15:00	1,406.25	351.56	1,096.06	274.02	
		08.02 12:00:00	0:15:00	1,390.12	347.53	1,131.80	282.95	
		08.02 12:15:00	0:15:00	1,375.23	343.81	1,194.33	298.58	
		08.02 12:30:00	0:15:00	1,358.85	339.71	1,219.64	304.91	
		08.02 12:45:00	0:15:00	1,343.96	335.99	1,269.52	317.38	
		08.02 13:00:00	0:15:00	1,325.60	331.40	1,284.41	321.10	
		08.02 13:15:00	0:15:00	1,318.65	329.66	1,331.80	332.95	
		08.02 13:30:00	0:15:00	1,340.74	335.18	1,322.62	330.66	
		08.02 13:45:00	0:15:00	1,392.85	348.21	1,310.71	327.68	
		08.02 14:00:00	0:15:00	1,463.57	365.89	1,242.22	310.56	
		08.02 14:15:00	0:15:00	1,671.02	417.75	1,205.25	301.31	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		08.02 14:30:00	0:15:00	1,904.52	476.13	1,131.80	282.95	
		08.02 14:45:00	0:15:00	2,146.96	536.74	1,087.38	271.84	
		08.02 15:00:00	0:15:00	2,390.89	597.72	1,006.98	251.74	
		08.02 15:15:00	0:15:00	2,619.68	654.92	959.58	239.90	
		08.02 15:30:00	0:15:00	2,856.91	714.23	893.08	223.27	
		08.02 15:45:00	0:15:00	3,107.04	776.76	843.20	210.80	
		08.02 16:00:00	0:15:00	3,350.72	837.68	772.73	193.18	
		08.02 16:15:00	0:15:00	3,617.48	904.37	706.47	176.62	
		08.02 16:30:00	0:15:00	3,870.34	967.59	606.97	151.74	
		08.02 16:45:00	0:15:00	4,176.55	1,044.14	476.94	119.23	
		08.02 17:00:00	0:15:00	4,643.56	1,160.89	240.95	60.24	
		08.02 17:15:00	0:15:00	5,188.74	1,297.19	0.25	0.06	
9-Aug	3-May	08.09 08:30:00	0:15:00	2,737.05	684.26	93.55	23.39	
		08.09 08:45:00	0:15:00	1,998.82	499.71	305.22	76.31	
		08.09 09:00:00	0:15:00	1,531.56	382.89	490.34	122.58	
		08.09 09:15:00	0:15:00	1,383.66	345.92	579.17	144.79	
		08.09 09:30:00	0:15:00	1,401.53	350.38	655.60	163.90	
		08.09 09:45:00	0:15:00	1,418.40	354.60	732.78	183.19	
		08.09 10:00:00	0:15:00	1,433.79	358.45	792.33	198.08	
		08.09 10:15:00	0:15:00	1,445.95	361.49	838.49	209.62	
		08.09 10:30:00	0:15:00	1,456.87	364.22	897.05	224.26	
		08.09 10:45:00	0:15:00	1,469.03	367.26	960.82	240.21	
		08.09 11:00:00	0:15:00	1,468.03	367.01	1,010.70	252.68	
		08.09 11:15:00	0:15:00	1,454.63	363.66	1,077.45	269.36	
		08.09 11:30:00	0:15:00	1,439.50	359.87	1,133.04	283.26	
		08.09 11:45:00	0:15:00	1,426.59	356.65	1,199.54	299.89	
		08.09 12:00:00	0:15:00	1,410.71	352.68	1,240.48	310.12	
		08.09 12:15:00	0:15:00	1,396.07	349.02	1,301.53	325.38	
		08.09 12:30:00	0:15:00	1,379.20	344.80	1,332.05	333.01	
		08.09 12:45:00	0:15:00	1,364.56	341.14	1,384.66	346.16	
		08.09 13:00:00	0:15:00	1,345.45	336.36	1,405.75	351.44	
		08.09 13:15:00	0:15:00	1,339.99	335.00	1,455.63	363.91	
		08.09 13:30:00	0:15:00	1,365.80	341.45	1,451.41	362.85	
		08.09 13:45:00	0:15:00	1,421.88	355.47	1,430.56	357.64	
		08.09 14:00:00	0:15:00	1,503.77	375.94	1,363.56	340.89	
		08.09 14:15:00	0:15:00	1,732.06	433.02	1,320.64	330.16	
		08.09 14:30:00	0:15:00	1,971.77	492.94	1,248.18	312.04	
		08.09 14:45:00	0:15:00	2,227.61	556.90	1,197.80	299.45	
		08.09 15:00:00	0:15:00	2,473.27	618.32	1,116.91	279.23	
		08.09 15:15:00	0:15:00	2,710.50	677.63	1,066.04	266.51	
		08.09 15:30:00	0:15:00	2,960.14	740.03	1,001.52	250.38	
		08.09 15:45:00	0:15:00	3,223.17	805.79	951.39	237.85	
		08.09 16:00:00	0:15:00	3,488.94	872.23	879.43	219.86	
		08.09 16:15:00	0:15:00	3,777.04	944.26	816.15	204.04	
		08.09 16:30:00	0:15:00	4,057.94	1,014.48	735.75	183.94	
		08.09 16:45:00	0:15:00	4,439.59	1,109.90	631.53	157.88	
		08.09 17:00:00	0:15:00	4,940.10	1,235.02	485.37	121.34	
		08.09 17:15:00	0:15:00	5,536.39	1,384.10	227.80	56.95	
16-Aug	26-May	08.16 08:15:00	0:15:00	4,441.57	1,110.39	92.81	23.20	
		08.16 08:30:00	0:15:00	3,132.85	783.21	317.38	79.35	
		08.16 08:45:00	0:15:00	2,244.73	561.18	486.86	121.72	
		08.16 09:00:00	0:15:00	1,694.10	423.52	573.96	143.49	
		08.16 09:15:00	0:15:00	1,414.93	353.73	661.31	165.33	
		08.16 09:30:00	0:15:00	1,428.08	357.02	743.45	185.86	
		08.16 09:45:00	0:15:00	1,444.46	361.12	823.10	205.78	
		08.16 10:00:00	0:15:00	1,458.85	364.71	888.61	222.15	
		08.16 10:15:00	0:15:00	1,470.52	367.63	941.96	235.49	
		08.16 10:30:00	0:15:00	1,483.42	370.86	1,000.03	250.01	
		08.16 10:45:00	0:15:00	1,491.61	372.90	1,066.04	266.51	
		08.16 11:00:00	0:15:00	1,493.10	373.27	1,112.44	278.11	
		08.16 11:15:00	0:15:00	1,481.43	370.36	1,179.19	294.80	
		08.16 11:30:00	0:15:00	1,466.55	366.64	1,238.50	309.63	
		08.16 11:45:00	0:15:00	1,449.92	362.48	1,309.72	327.43	
		08.16 12:00:00	0:15:00	1,434.29	358.57	1,358.60	339.65	
		08.16 12:15:00	0:15:00	1,418.40	354.60	1,424.11	356.03	
		08.16 12:30:00	0:15:00	1,401.28	350.32	1,459.10	364.78	
		08.16 12:45:00	0:15:00	1,385.65	346.41	1,518.66	379.66	
		08.16 13:00:00	0:15:00	1,367.53	341.88	1,544.46	386.12	
		08.16 13:15:00	0:15:00	1,364.81	341.20	1,598.56	399.64	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		08.16 13:30:00	0:15:00	1,395.08	348.77	1,594.34	398.59	
		08.16 13:45:00	0:15:00	1,455.38	363.85	1,563.07	390.77	
		08.16 14:00:00	0:15:00	1,570.52	392.63	1,491.61	372.90	
		08.16 14:15:00	0:15:00	1,805.51	451.38	1,446.94	361.74	
		08.16 14:30:00	0:15:00	2,056.39	514.10	1,367.53	341.88	
		08.16 14:45:00	0:15:00	2,326.12	581.53	1,312.69	328.17	
		08.16 15:00:00	0:15:00	2,575.76	643.94	1,239.49	309.87	
		08.16 15:15:00	0:15:00	2,824.65	706.16	1,186.64	296.66	
		08.16 15:30:00	0:15:00	3,084.71	771.18	1,125.34	281.34	
		08.16 15:45:00	0:15:00	3,365.11	841.28	1,069.26	267.32	
		08.16 16:00:00	0:15:00	3,650.23	912.56	1,005.74	251.43	
		08.16 16:15:00	0:15:00	3,958.68	989.67	972.24	243.06	
		08.16 16:30:00	0:15:00	4,287.97	1,071.99	907.47	226.87	
		08.16 16:45:00	0:15:00	4,762.18	1,190.54	877.62	196.90	
		08.16 17:00:00	0:15:00	5,309.34	1,327.34	657.59	164.40	
		08.16 17:15:00	0:15:00	5,967.42	1,491.86	531.53	132.88	
		08.16 17:30:00	0:15:00	6,746.85	1,686.71	207.45	51.86	
23-Aug	19-Apr	08.23 08:00:00	0:15:00	7,258.53	1,814.63	96.28	24.07	
		08.23 08:15:00	0:15:00	5,200.90	1,300.23	349.89	87.47	
		08.23 08:30:00	0:15:00	3,644.77	911.19	496.04	124.01	
		08.23 08:45:00	0:15:00	2,559.13	639.78	577.44	144.36	
		08.23 09:00:00	0:15:00	1,875.74	468.94	661.06	165.27	
		08.23 09:15:00	0:15:00	1,482.92	370.73	752.63	188.16	
		08.23 09:30:00	0:15:00	1,461.09	365.27	839.23	209.81	
		08.23 09:45:00	0:15:00	1,475.97	368.99	923.85	230.96	
		08.23 10:00:00	0:15:00	1,489.13	372.28	995.32	248.83	
		08.23 10:15:00	0:15:00	1,501.78	375.45	1,055.61	263.90	
		08.23 10:30:00	0:15:00	1,508.98	377.24	1,114.92	278.73	
		08.23 10:45:00	0:15:00	1,519.40	379.85	1,180.43	295.11	
		08.23 11:00:00	0:15:00	1,527.84	381.96	1,225.84	306.46	
		08.23 11:15:00	0:15:00	1,510.47	377.62	1,295.08	323.77	
		08.23 11:30:00	0:15:00	1,491.61	372.90	1,359.84	339.96	
		08.23 11:45:00	0:15:00	1,475.48	368.87	1,440.24	360.06	
		08.23 12:00:00	0:15:00	1,458.60	364.65	1,492.35	373.09	
		08.23 12:15:00	0:15:00	1,442.23	360.56	1,563.32	390.83	
		08.23 12:30:00	0:15:00	1,424.61	356.15	1,605.01	401.25	
		08.23 12:45:00	0:15:00	1,408.73	352.18	1,670.03	417.51	
		08.23 13:00:00	0:15:00	1,390.61	347.65	1,704.02	426.01	
		08.23 13:15:00	0:15:00	1,391.36	347.84	1,760.85	440.21	
		08.23 13:30:00	0:15:00	1,430.32	357.58	1,752.16	438.04	
		08.23 13:45:00	0:15:00	1,496.82	374.21	1,709.48	427.37	
		08.23 14:00:00	0:15:00	1,653.65	413.41	1,634.29	408.57	
		08.23 14:15:00	0:15:00	1,904.52	476.13	1,582.93	395.73	
		08.23 14:30:00	0:15:00	2,166.81	541.70	1,523.12	380.78	
		08.23 14:45:00	0:15:00	2,440.77	610.19	1,458.60	364.65	
		08.23 15:00:00	0:15:00	2,698.34	674.59	1,375.48	343.87	
		08.23 15:15:00	0:15:00	2,967.33	741.83	1,323.86	330.97	
		08.23 15:30:00	0:15:00	3,241.29	810.32	1,260.83	315.21	
		08.23 15:45:00	0:15:00	3,544.27	886.07	1,207.48	301.87	
		08.23 16:00:00	0:15:00	3,855.95	963.99	1,172.00	293.00	
		08.23 16:15:00	0:15:00	4,192.18	1,048.05	1,218.90	304.72	
		08.23 16:30:00	0:15:00	4,593.19	1,148.30	1,183.91	295.98	
		08.23 16:45:00	0:15:00	5,131.91	1,282.98	1,059.34	264.83	
		08.23 17:00:00	0:15:00	5,747.32	1,436.83	848.91	212.23	
		08.23 17:15:00	0:15:00	6,501.93	1,625.48	729.30	182.33	
		08.23 17:30:00	0:15:00	7,387.81	1,846.95	593.07	148.27	
		08.23 17:45:00	0:15:00	8,552.86	2,138.22	183.63	45.91	
30-Aug	12-Apr	08.30 07:37:48	0:03:36	13,319.25	799.16	11.91	0.72	
		08.30 07:45:00	0:11:24	12,014.00	2,282.66	97.03	18.44	
		08.30 08:00:00	0:15:00	8,459.31	2,114.83	342.69	85.67	
		08.30 08:15:00	0:15:00	6,057.75	1,514.44	494.56	123.64	
		08.30 08:30:00	0:15:00	4,266.38	1,066.60	581.41	145.35	
		08.30 08:45:00	0:15:00	2,949.47	737.37	666.77	166.69	
		08.30 09:00:00	0:15:00	2,090.63	522.66	752.63	188.16	
		08.30 09:15:00	0:15:00	1,603.03	400.76	847.67	211.92	
		08.30 09:30:00	0:15:00	1,502.77	375.69	941.96	235.49	
		08.30 09:45:00	0:15:00	1,512.20	378.05	1,034.27	258.57	
		08.30 10:00:00	0:15:00	1,522.38	380.59	1,110.95	277.74	
		08.30 10:15:00	0:15:00	1,538.26	384.57	1,185.64	296.41	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		08.30 10:30:00	0:15:00	1,545.70	386.43	1,243.71	310.93	
		08.30 10:45:00	0:15:00	1,552.90	388.23	1,307.73	326.93	
		08.30 11:00:00	0:15:00	1,556.87	389.22	1,350.41	337.60	
		08.30 11:15:00	0:15:00	1,539.75	384.94	1,422.38	355.59	
		08.30 11:30:00	0:15:00	1,518.90	379.73	1,493.59	373.40	
		08.30 11:45:00	0:15:00	1,501.04	375.26	1,582.93	395.73	
		08.30 12:00:00	0:15:00	1,483.42	370.86	1,642.23	410.56	
		08.30 12:15:00	0:15:00	1,466.79	366.70	1,719.90	429.98	
		08.30 12:30:00	0:15:00	1,449.42	362.36	1,766.55	441.64	
		08.30 12:45:00	0:15:00	1,432.80	358.20	1,839.26	459.82	
		08.30 13:00:00	0:15:00	1,416.17	354.04	1,880.45	470.11	
		08.30 13:15:00	0:15:00	1,421.63	355.41	1,946.71	486.68	
		08.30 13:30:00	0:15:00	1,469.03	367.26	1,917.92	479.48	
		08.30 13:45:00	0:15:00	1,542.23	385.56	1,870.28	467.57	
		08.30 14:00:00	0:15:00	1,746.21	436.55	1,789.88	447.47	
		08.30 14:15:00	0:15:00	2,015.44	503.86	1,739.75	434.94	
		08.30 14:30:00	0:15:00	2,299.08	574.77	1,722.14	430.53	
		08.30 14:45:00	0:15:00	2,576.50	644.13	1,686.40	421.60	
		08.30 15:00:00	0:15:00	2,844.01	711.00	1,605.26	401.32	
		08.30 15:15:00	0:15:00	3,138.31	784.58	1,541.24	385.31	
		08.30 15:30:00	0:15:00	3,436.33	859.08	1,412.70	353.17	
		08.30 15:45:00	0:15:00	3,760.41	940.10	1,365.30	341.33	
		08.30 16:00:00	0:15:00	4,094.41	1,023.60	1,429.57	357.39	
		08.30 16:15:00	0:15:00	4,477.30	1,119.33	1,559.10	389.78	
		08.30 16:30:00	0:15:00	4,953.50	1,238.37	1,579.95	394.99	
		08.30 16:45:00	0:15:00	5,552.27	1,388.07	1,464.56	366.14	
		08.30 17:00:00	0:15:00	6,249.07	1,562.27	1,159.59	289.90	
		08.30 17:15:00	0:15:00	7,109.39	1,777.35	1,006.73	251.68	
		08.30 17:30:00	0:15:00	8,155.83	2,038.96	874.47	218.62	
		08.30 17:45:00	0:15:00	9,525.59	2,381.40	633.52	158.38	
		08.30 18:00:00	0:15:00	11,519.95	2,879.99	103.23	25.81	
6-Sep	5-Apr	09.06 07:44:24	0:07:48	13,675.10	1,777.76	212.91	27.68	
		09.06 08:00:00	0:15:00	9,939.25	2,484.81	418.13	104.53	
		09.06 08:15:00	0:15:00	7,076.64	1,769.16	547.91	136.98	
		09.06 08:30:00	0:15:00	5,002.63	1,250.66	661.31	165.33	
		09.06 08:45:00	0:15:00	3,434.84	858.71	757.84	189.46	
		09.06 09:00:00	0:15:00	2,375.51	593.88	847.92	211.98	
		09.06 09:15:00	0:15:00	1,792.11	448.03	949.41	237.35	
		09.06 09:30:00	0:15:00	1,544.96	386.24	1,050.65	262.66	
		09.06 09:45:00	0:15:00	1,553.89	388.47	1,151.65	287.91	
		09.06 10:00:00	0:15:00	1,562.08	390.52	1,234.28	308.57	
		09.06 10:15:00	0:15:00	1,573.74	393.44	1,314.43	328.61	
		09.06 10:30:00	0:15:00	1,581.19	395.30	1,376.72	344.18	
		09.06 10:45:00	0:15:00	1,591.61	397.90	1,444.71	361.18	
		09.06 11:00:00	0:15:00	1,595.09	398.77	1,488.13	372.03	
		09.06 11:15:00	0:15:00	1,577.22	394.30	1,565.56	391.39	
		09.06 11:30:00	0:15:00	1,555.38	388.85	1,644.96	411.24	
		09.06 11:45:00	0:15:00	1,538.26	384.57	1,742.48	435.62	
		09.06 12:00:00	0:15:00	1,520.14	380.04	1,807.25	451.81	
		09.06 12:15:00	0:15:00	1,502.77	375.69	1,891.87	472.97	
		09.06 12:30:00	0:15:00	1,484.66	371.17	1,948.69	487.17	
		09.06 12:45:00	0:15:00	1,467.79	366.95	2,027.85	506.96	
		09.06 13:00:00	0:15:00	1,450.17	362.54	2,078.47	519.62	
		09.06 13:15:00	0:15:00	1,468.03	367.01	2,144.48	536.12	
		09.06 13:30:00	0:15:00	1,519.65	379.91	2,102.30	525.57	
		09.06 13:45:00	0:15:00	1,607.99	402.00	2,047.95	511.99	
		09.06 14:00:00	0:15:00	1,858.12	464.53	1,961.35	490.34	
		09.06 14:15:00	0:15:00	2,141.75	535.44	1,932.81	483.20	
		09.06 14:30:00	0:15:00	2,439.03	609.76	1,942.99	485.75	
		09.06 14:45:00	0:15:00	2,730.11	682.53	1,956.63	489.16	
		09.06 15:00:00	0:15:00	3,024.16	756.04	1,924.87	481.22	
		09.06 15:15:00	0:15:00	3,340.79	835.20	1,919.91	479.98	
		09.06 15:30:00	0:15:00	3,660.90	915.23	1,859.61	464.90	
		09.06 15:45:00	0:15:00	4,018.48	1,004.62	1,818.66	454.67	
		09.06 16:00:00	0:15:00	4,379.29	1,094.82	1,905.02	476.26	
		09.06 16:15:00	0:15:00	4,820.74	1,205.19	2,033.06	508.27	
		09.06 16:30:00	0:15:00	5,376.34	1,344.09	2,095.60	523.90	
		09.06 16:45:00	0:15:00	6,033.43	1,508.36	1,856.13	464.03	
		09.06 17:00:00	0:15:00	6,825.76	1,706.44	1,528.58	382.15	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		09.06 17:15:00	0:15:00	7,805.94	1,951.49	1,343.46	335.87	
		09.06 17:30:00	0:15:00	9,035.50	2,258.88	1,217.65	304.41	
		09.06 17:45:00	0:15:00	10,726.62	2,681.66	940.97	235.24	
		09.06 18:00:00	0:15:00	12,473.57	3,118.39	605.73	151.43	
13-Sep	29-Mar	09.13 07:50:24	0:04:48	13,536.13	1,082.89	231.27	18.50	
		09.13 08:00:00	0:12:36	11,474.53	2,409.65	359.81	75.56	
		09.13 08:15:00	0:15:00	8,196.03	2,049.01	576.69	144.17	
		09.13 08:30:00	0:15:00	5,813.32	1,453.33	734.02	183.50	
		09.13 08:45:00	0:15:00	4,018.73	1,004.68	852.63	213.16	
		09.13 09:00:00	0:15:00	2,739.29	684.82	947.42	236.86	
		09.13 09:15:00	0:15:00	2,000.80	500.20	1,052.64	263.16	
		09.13 09:30:00	0:15:00	1,610.97	402.74	1,161.33	290.33	
		09.13 09:45:00	0:15:00	1,602.03	400.51	1,272.74	318.19	
		09.13 10:00:00	0:15:00	1,608.48	402.12	1,364.06	341.02	
		09.13 10:15:00	0:15:00	1,617.91	404.48	1,450.66	362.67	
		09.13 10:30:00	0:15:00	1,621.39	405.35	1,519.15	379.79	
		09.13 10:45:00	0:15:00	1,628.09	407.02	1,591.11	397.78	
		09.13 11:00:00	0:15:00	1,629.33	407.33	1,641.49	410.37	
		09.13 11:15:00	0:15:00	1,612.95	403.24	1,738.76	434.69	
		09.13 11:30:00	0:15:00	1,588.39	397.10	1,826.36	456.59	
		09.13 11:45:00	0:15:00	1,571.51	392.88	1,931.57	482.89	
		09.13 12:00:00	0:15:00	1,549.18	387.29	2,001.80	500.45	
		09.13 12:15:00	0:15:00	1,534.29	383.57	2,092.37	523.09	
		09.13 12:30:00	0:15:00	1,512.45	378.11	2,156.39	539.10	
		09.13 12:45:00	0:15:00	1,497.07	374.27	2,241.26	560.31	
		09.13 13:00:00	0:15:00	1,479.95	369.99	2,301.81	575.45	
		09.13 13:15:00	0:15:00	1,510.47	377.62	2,365.08	591.27	
		09.13 13:30:00	0:15:00	1,574.24	393.56	2,304.54	576.13	
		09.13 13:45:00	0:15:00	1,710.97	427.74	2,244.48	561.12	
		09.13 14:00:00	0:15:00	126.00	497.78	2,152.17	538.04	
		09.13 14:15:00	0:15:00	2,295.85	573.96	2,172.52	543.13	
		09.13 14:30:00	0:15:00	2,609.51	652.38	2,219.92	554.98	
		09.13 14:45:00	0:15:00	2,915.97	728.99	2,289.40	572.35	
		09.13 15:00:00	0:15:00	3,227.14	806.79	2,317.69	579.42	
		09.13 15:15:00	0:15:00	3,572.07	893.02	2,374.02	593.50	
		09.13 15:30:00	0:15:00	3,929.15	982.29	2,405.28	601.32	
		09.13 15:45:00	0:15:00	4,310.05	1,077.51	2,545.98	636.50	
		09.13 16:00:00	0:15:00	4,718.75	1,179.69	2,678.74	669.69	
		09.13 16:15:00	0:15:00	5,221.99	1,305.50	2,802.32	700.58	
		09.13 16:30:00	0:15:00	5,841.86	1,460.47	2,619.18	654.80	
		09.13 16:45:00	0:15:00	6,591.01	1,647.75	2,240.27	560.07	
		09.13 17:00:00	0:15:00	7,484.84	1,871.21	1,900.80	475.20	
		09.13 17:15:00	0:15:00	8,609.19	2,152.30	1,769.78	442.45	
		09.13 17:30:00	0:15:00	10,070.27	2,517.57	1,544.71	386.18	
		09.13 17:45:00	0:15:00	11,841.29	2,960.32	1,283.66	320.92	
		09.13 18:00:00	0:15:00	13,307.09	3,326.77	870.25	217.56	
		09.13 18:15:00	0:10:48	14,041.36	2,527.45	385.87	69.46	
		09.13 18:21:00	0:03:00	14,396.21	719.81	181.89	9.10	
20-Sep	22-Mar	09.20 07:57:00	0:01:12	13,188.48	263.77	126.31	2.53	
		09.20 08:00:00	0:09:00	12,572.83	1,885.92	191.57	28.74	
		09.20 08:15:00	0:15:00	9,384.65	2,346.16	495.05	123.76	
		09.20 08:30:00	0:15:00	6,715.34	1,678.83	749.40	187.35	
		09.20 08:45:00	0:15:00	4,683.76	1,170.94	918.14	229.54	
		09.20 09:00:00	0:15:00	3,164.86	791.22	1,049.16	262.29	
		09.20 09:15:00	0:15:00	2,249.20	562.30	1,161.82	290.46	
		09.20 09:30:00	0:15:00	1,733.05	433.26	1,292.84	323.21	
		09.20 09:45:00	0:15:00	1,655.14	413.78	1,423.86	355.97	
		09.20 10:00:00	0:15:00	1,661.59	415.40	1,515.68	378.92	
		09.20 10:15:00	0:15:00	1,666.55	416.64	1,608.98	402.25	
		09.20 10:30:00	0:15:00	1,666.30	416.58	1,675.73	418.93	
		09.20 10:45:00	0:15:00	1,671.51	417.88	1,748.44	437.11	
		09.20 11:00:00	0:15:00	1,672.01	418.00	1,815.94	453.98	
		09.20 11:15:00	0:15:00	1,654.14	413.54	1,926.11	481.53	
		09.20 11:30:00	0:15:00	1,627.10	406.77	2,023.39	505.85	
		09.20 11:45:00	0:15:00	1,607.24	401.81	2,137.53	534.38	
		09.20 12:00:00	0:15:00	1,586.90	396.72	2,214.46	553.61	
		09.20 12:15:00	0:15:00	1,569.28	392.32	2,311.73	577.93	
		09.20 12:30:00	0:15:00	1,550.91	387.73	2,382.21	595.55	
		09.20 12:45:00	0:15:00	1,535.28	383.82	2,475.76	618.94	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSfHr	NewSF	NewSFHr	New SFHR Total/day
		09.20 13:00:00	0:15:00	1,523.37	380.84	2,551.44	637.86	6,596.85
		09.20 13:15:00	0:15:00	1,566.05	391.51	2,609.01	652.25	
		09.20 13:30:00	0:15:00	1,635.04	408.76	2,526.38	631.59	
		09.20 13:45:00	0:15:00	1,835.29	458.82	2,467.32	616.83	
		09.20 14:00:00	0:15:00	2,134.31	533.58	2,387.91	596.98	
		09.20 14:15:00	0:15:00	2,465.09	616.27	2,472.53	618.13	
		09.20 14:30:00	0:15:00	2,785.94	696.49	2,566.58	641.64	
		09.20 14:45:00	0:15:00	3,122.43	780.61	2,705.29	676.32	
		09.20 15:00:00	0:15:00	3,467.10	866.78	2,801.32	700.33	
		09.20 15:15:00	0:15:00	3,844.28	961.07	2,946.49	736.62	
		09.20 15:30:00	0:15:00	4,231.14	1,057.79	3,101.58	775.40	
		09.20 15:45:00	0:15:00	4,644.31	1,161.08	3,434.10	858.52	
		09.20 16:00:00	0:15:00	5,096.93	1,274.23	3,616.24	904.06	
		09.20 16:15:00	0:15:00	5,689.00	1,422.25	3,773.07	943.27	
		09.20 16:30:00	0:15:00	6,359.99	1,590.00	3,293.15	823.29	
		09.20 16:45:00	0:15:00	7,200.21	1,800.05	2,816.96	704.24	
		09.20 17:00:00	0:15:00	8,228.04	2,057.01	2,502.31	625.58	
		09.20 17:15:00	0:15:00	9,532.29	2,383.07	2,277.98	569.50	
		09.20 17:30:00	0:15:00	11,343.51	2,835.88	1,938.02	484.51	
		09.20 17:45:00	0:15:00	12,582.01	3,145.50	1,544.71	386.18	
09.20 18:00:00	0:12:36	13,441.34	2,822.68	1,035.02	217.35	21,620.20		
09.20 18:09:36	0:04:48	13,899.92	1,111.99	711.68	56.94			
27-Sep	15-Mar	09.27 08:03:00	0:06:00	12,756.95	1,275.70	152.86	15.29	
		09.27 08:15:00	0:13:12	10,524.13	2,315.31	341.45	75.12	
		09.27 08:30:00	0:15:00	7,833.73	1,958.43	690.59	172.65	
		09.27 08:45:00	0:15:00	5,483.29	1,370.82	960.57	240.14	
		09.27 09:00:00	0:15:00	3,745.52	936.38	1,144.20	286.05	
		09.27 09:15:00	0:15:00	2,561.61	640.40	1,331.06	332.76	
		09.27 09:30:00	0:15:00	1,907.75	476.94	1,502.03	375.51	
		09.27 09:45:00	0:15:00	1,713.45	428.36	1,677.22	419.31	
		09.27 10:00:00	0:15:00	1,712.95	428.24	1,804.52	451.13	
		09.27 10:15:00	0:15:00	1,713.20	428.30	1,928.10	482.02	
		09.27 10:30:00	0:15:00	1,714.44	428.61	1,978.72	494.68	
		09.27 10:45:00	0:15:00	1,717.17	429.29	2,052.17	513.04	
		09.27 11:00:00	0:15:00	1,716.18	429.05	2,108.25	527.06	
		09.27 11:15:00	0:15:00	1,699.06	424.76	2,207.26	551.82	
		09.27 11:30:00	0:15:00	1,671.02	417.75	2,289.40	572.35	
		09.27 11:45:00	0:15:00	1,648.44	412.11	2,403.55	600.89	
		09.27 12:00:00	0:15:00	1,628.83	407.21	2,477.00	619.25	
		09.27 12:15:00	0:15:00	1,610.97	402.74	2,581.71	645.43	
		09.27 12:30:00	0:15:00	1,590.62	397.65	2,652.19	663.05	
		09.27 12:45:00	0:15:00	1,573.25	393.31	2,756.91	689.23	
		09.27 13:00:00	0:15:00	1,566.55	391.64	2,845.99	711.50	
		09.27 13:15:00	0:15:00	1,622.38	405.60	2,873.53	718.38	
		09.27 13:30:00	0:15:00	1,697.82	424.45	2,781.72	695.43	
		09.27 13:45:00	0:15:00	1,957.38	489.35	2,728.87	682.22	
		09.27 14:00:00	0:15:00	2,270.04	567.51	2,688.17	672.04	
		09.27 14:15:00	0:15:00	2,607.52	651.88	2,847.73	711.93	
		09.27 14:30:00	0:15:00	2,936.56	734.14	3,004.80	751.20	
		09.27 14:45:00	0:15:00	3,288.44	822.11	3,228.88	807.22	
		09.27 15:00:00	0:15:00	3,656.44	914.11	3,405.56	851.39	
		09.27 15:15:00	0:15:00	4,059.18	1,014.79	3,691.43	922.86	
		09.27 15:30:00	0:15:00	4,488.97	1,122.24	3,987.22	996.80	
		09.27 15:45:00	0:15:00	4,945.31	1,236.33	4,413.28	1,103.32	
09.27 16:00:00	0:15:00	5,479.07	1,369.77	4,718.75	1,179.69			
09.27 16:15:00	0:15:00	6,120.53	1,530.13	4,514.53	1,128.63			
09.27 16:30:00	0:15:00	6,914.10	1,728.53	3,934.11	983.53			
09.27 16:45:00	0:15:00	7,891.05	1,972.76	3,443.78	860.94			
09.27 17:00:00	0:15:00	9,112.93	2,278.23	3,027.63	756.91			
09.27 17:15:00	0:15:00	10,705.28	2,676.32	2,701.32	675.33			
09.27 17:30:00	0:15:00	12,025.42	3,006.36	2,243.49	560.87			
09.27 17:45:00	0:13:48	13,057.46	3,003.22	1,483.92	341.30	24,937.21		
09.27 17:58:11	0:06:36	13,745.57	1,512.01	899.53	98.95			
4-Oct	8-Mar	10.04 08:09:36	0:02:24	12,400.37	496.02	180.90	7.24	
		10.04 08:15:00	0:10:12	11,439.79	1,944.77	253.36	43.07	
		10.04 08:30:00	0:15:00	8,955.10	2,238.78	582.65	145.66	
		10.04 08:45:00	0:15:00	6,376.86	1,594.22	1,044.20	261.05	
		10.04 09:00:00	0:15:00	4,378.79	1,094.70	1,414.19	353.55	
		10.04 09:15:00	0:15:00	2,991.90	747.98	1,610.47	402.62	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		10.04 09:30:00	0:15:00	2,144.73	536.18	1,759.61	439.90	
		10.04 09:45:00	0:15:00	1,779.71	444.93	1,966.81	491.70	
		10.04 10:00:00	0:15:00	1,771.77	442.94	2,125.37	531.34	
		10.04 10:15:00	0:15:00	1,771.02	442.76	2,276.74	569.19	
		10.04 10:30:00	0:15:00	1,765.81	441.45	2,359.13	589.78	
		10.04 10:45:00	0:15:00	1,765.56	441.39	2,412.98	603.24	
		10.04 11:00:00	0:15:00	1,764.07	441.02	2,438.04	609.51	
		10.04 11:15:00	0:15:00	1,746.45	436.61	2,515.96	628.99	
		10.04 11:30:00	0:15:00	1,717.67	429.42	2,590.40	647.60	
		10.04 11:45:00	0:15:00	1,694.59	423.65	2,703.55	675.89	
		10.04 12:00:00	0:15:00	1,672.01	418.00	2,788.67	697.17	
		10.04 12:15:00	0:15:00	1,653.15	413.29	2,897.61	724.40	
		10.04 12:30:00	0:15:00	1,631.07	407.77	2,977.51	744.38	
		10.04 12:45:00	0:15:00	1,615.18	403.80	3,085.45	771.36	
		10.04 13:00:00	0:15:00	1,612.95	403.24	3,191.41	797.85	
		10.04 13:15:00	0:15:00	1,678.71	419.68	3,238.56	809.64	
		10.04 13:30:00	0:15:00	1,789.14	447.28	3,155.93	788.98	
		10.04 13:45:00	0:15:00	2,083.93	520.98	3,112.00	778.00	
		10.04 14:00:00	0:15:00	2,408.76	602.19	3,153.69	788.42	
		10.04 14:15:00	0:15:00	2,744.25	686.06	3,419.95	854.99	
		10.04 14:30:00	0:15:00	3,086.69	771.67	3,638.57	909.64	
		10.04 14:45:00	0:15:00	3,452.21	863.05	3,932.87	983.22	
		10.04 15:00:00	0:15:00	3,837.83	959.46	4,189.45	1,047.36	
		10.04 15:15:00	0:15:00	4,256.45	1,064.11	4,579.54	1,144.89	
		10.04 15:30:00	0:15:00	4,712.30	1,178.08	5,016.53	1,254.13	
		10.04 15:45:00	0:15:00	5,214.55	1,303.64	5,529.94	1,382.49	
		10.04 16:00:00	0:15:00	5,788.26	1,447.07	5,660.22	1,415.05	
		10.04 16:15:00	0:15:00	6,505.40	1,626.35	5,150.53	1,287.63	
		10.04 16:30:00	0:15:00	7,422.30	1,855.58	4,519.24	1,129.81	
		10.04 16:45:00	0:15:00	8,620.60	2,155.15	3,864.38	966.10	
		10.04 17:00:00	0:15:00	10,140.75	2,535.19	3,338.56	834.64	
		10.04 17:15:00	0:15:00	11,603.32	2,900.83	2,749.71	687.43	
		10.04 17:30:00	0:16:12	12,684.99	3,424.95	1,989.89	537.27	
		10.04 17:47:23	0:08:24	14,056.99	1,967.98	616.64	86.33	28,421.50
11-Oct	1-Mar	10.11 08:16:11	0:07:12	12,039.32	1,444.72	324.08	38.89	
		10.11 08:30:00	0:14:24	9,887.39	2,372.97	424.58	101.90	
		10.11 08:45:00	0:15:00	7,290.54	1,822.64	1,158.10	289.53	
		10.11 09:00:00	0:15:00	5,059.95	1,264.99	1,691.61	422.90	
		10.11 09:15:00	0:15:00	3,428.14	857.04	1,980.21	495.05	
		10.11 09:30:00	0:15:00	2,408.51	602.13	2,125.87	531.47	
		10.11 09:45:00	0:15:00	1,896.58	474.15	2,333.57	583.39	
		10.11 10:00:00	0:15:00	1,835.29	458.82	2,496.60	624.15	
		10.11 10:15:00	0:15:00	1,831.07	457.77	2,658.14	664.54	
		10.11 10:30:00	0:15:00	1,825.36	456.34	2,765.09	691.27	
		10.11 10:45:00	0:15:00	1,820.15	455.04	2,823.41	705.85	
		10.11 11:00:00	0:15:00	1,815.69	453.92	2,800.58	700.15	
		10.11 11:15:00	0:15:00	1,797.57	449.39	2,847.23	711.81	
		10.11 11:30:00	0:15:00	1,766.06	441.51	2,910.51	727.63	
		10.11 11:45:00	0:15:00	1,741.99	435.50	3,029.12	757.28	
		10.11 12:00:00	0:15:00	1,715.68	428.92	3,115.23	778.81	
		10.11 12:15:00	0:15:00	1,697.07	424.27	3,234.34	808.59	
		10.11 12:30:00	0:15:00	1,675.24	418.81	3,323.42	830.86	
		10.11 12:45:00	0:15:00	1,658.61	414.65	3,455.93	863.98	
		10.11 13:00:00	0:15:00	1,676.23	419.06	3,587.20	896.80	
		10.11 13:15:00	0:15:00	1,749.43	437.36	3,624.67	906.17	
		10.11 13:30:00	0:15:00	1,902.04	475.51	3,578.02	894.51	
		10.11 13:45:00	0:15:00	2,208.01	552.00	3,566.86	891.71	
		10.11 14:00:00	0:15:00	2,543.00	635.75	3,713.51	928.38	
		10.11 14:15:00	0:15:00	2,886.93	721.73	4,059.18	1,014.79	
		10.11 14:30:00	0:15:00	3,240.79	810.20	4,349.01	1,087.25	
		10.11 14:45:00	0:15:00	3,613.76	903.44	4,729.42	1,182.36	
		10.11 15:00:00	0:15:00	4,012.77	1,003.19	5,098.17	1,274.54	
		10.11 15:15:00	0:15:00	4,447.53	1,111.88	5,639.13	1,409.78	
		10.11 15:30:00	0:15:00	4,924.96	1,231.24	6,180.58	1,545.15	
		10.11 15:45:00	0:15:00	5,454.75	1,363.69	6,835.19	1,708.80	
		10.11 16:00:00	0:15:00	6,072.64	1,518.16	6,364.95	1,591.24	
		10.11 16:15:00	0:15:00	6,878.62	1,719.65	5,709.60	1,427.40	
		10.11 16:30:00	0:15:00	7,956.56	1,989.14	4,940.35	1,235.09	
		10.11 16:45:00	0:15:00	9,389.61	2,347.40	4,091.19	1,022.80	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		10.11 17:00:00	0:15:00	11,151.20	2,787.80	3,383.97	845.99	
		10.11 17:15:00	0:15:00	12,023.19	3,005.80	2,613.97	653.49	
		10.11 17:30:00	0:11:24	13,235.88	2,514.82	1,439.00	273.41	
		10.11 17:37:12	0:03:36	14,053.27	843.20	621.61	37.30	32,154.98
18-Oct	22-Feb	10.18 08:22:48	0:03:36	11,875.04	712.50	463.29	27.80	
		10.18 08:30:00	0:10:48	10,629.35	1,913.28	616.40	110.95	
		10.18 08:45:00	0:15:00	8,309.68	2,077.42	1,280.44	320.11	
		10.18 09:00:00	0:15:00	5,844.34	1,461.09	1,937.53	484.38	
		10.18 09:15:00	0:15:00	3,961.16	990.29	2,338.53	584.63	
		10.18 09:30:00	0:15:00	2,696.36	674.09	2,500.57	625.14	
		10.18 09:45:00	0:15:00	2,053.41	513.35	2,700.83	675.21	
		10.18 10:00:00	0:15:00	1,903.28	475.82	2,887.18	721.80	
		10.18 10:15:00	0:15:00	1,893.61	473.40	3,061.88	765.47	
		10.18 10:30:00	0:15:00	1,883.68	470.92	3,199.35	799.84	
		10.18 10:45:00	0:15:00	1,878.72	469.68	3,288.68	822.17	
		10.18 11:00:00	0:15:00	1,869.53	467.38	3,268.09	817.02	
		10.18 11:15:00	0:15:00	1,854.89	463.72	3,294.89	823.72	
		10.18 11:30:00	0:15:00	1,816.93	454.23	3,340.30	835.07	
		10.18 11:45:00	0:15:00	1,791.37	447.84	3,454.69	863.67	
		10.18 12:00:00	0:15:00	1,763.58	440.89	3,521.69	880.42	
		10.18 12:15:00	0:15:00	1,744.47	436.12	3,645.27	911.32	
		10.18 12:30:00	0:15:00	1,721.39	430.35	3,720.95	930.24	
		10.18 12:45:00	0:15:00	1,706.25	426.56	3,891.43	972.86	
		10.18 13:00:00	0:15:00	1,735.54	433.88	4,034.12	1,008.53	
		10.18 13:15:00	0:15:00	1,817.92	454.48	4,069.85	1,017.46	
		10.18 13:30:00	0:15:00	2,011.23	502.81	4,037.84	1,009.46	
		10.18 13:45:00	0:15:00	2,327.61	581.90	4,094.91	1,023.73	
		10.18 14:00:00	0:15:00	2,670.55	667.64	4,378.79	1,094.70	
		10.18 14:15:00	0:15:00	3,017.21	754.30	4,779.30	1,194.83	
		10.18 14:30:00	0:15:00	3,381.49	845.37	5,146.06	1,286.52	
		10.18 14:45:00	0:15:00	3,765.87	941.47	5,588.01	1,397.00	
		10.18 15:00:00	0:15:00	4,174.81	1,043.70	6,068.91	1,517.23	
		10.18 15:15:00	0:15:00	4,623.96	1,155.99	6,783.08	1,695.77	
		10.18 15:30:00	0:15:00	5,122.48	1,280.62	7,493.52	1,873.38	
		10.18 15:45:00	0:15:00	5,670.89	1,417.72	7,728.02	1,932.01	
		10.18 16:00:00	0:15:00	6,362.22	1,590.56	7,010.13	1,752.53	
		10.18 16:15:00	0:15:00	7,286.82	1,821.70	6,231.70	1,557.93	
		10.18 16:30:00	0:15:00	8,552.86	2,138.22	5,082.53	1,270.63	
		10.18 16:45:00	0:15:00	10,247.70	2,561.93	4,154.71	1,038.68	
		10.18 17:00:00	0:15:00	11,377.51	2,844.38	3,297.37	824.34	
		10.18 17:15:00	0:13:12	12,323.19	2,711.10	2,351.68	517.37	
		10.18 17:27:00	0:06:00	13,893.71	1,389.37	781.17	78.12	36,062.02
25-Oct	15-Feb	10.25 07:30:00	0:07:48	11,869.58	1,543.05	700.27	91.04	
		10.25 07:45:00	0:15:00	9,150.15	2,287.54	1,432.30	358.08	
		10.25 08:00:00	0:15:00	6,642.88	1,660.72	2,172.77	543.19	
		10.25 08:15:00	0:15:00	4,617.76	1,154.44	2,674.52	668.63	
		10.25 08:30:00	0:15:00	3,113.00	778.25	2,866.59	716.65	
		10.25 08:45:00	0:15:00	2,260.12	565.03	3,061.88	765.47	
		10.25 09:00:00	0:15:00	1,974.00	493.50	3,269.82	817.46	
		10.25 09:15:00	0:15:00	1,962.84	490.71	3,465.36	866.34	
		10.25 09:30:00	0:15:00	1,947.45	486.86	3,629.64	907.41	
		10.25 09:45:00	0:15:00	1,939.26	484.82	3,785.22	946.31	
		10.25 10:00:00	0:15:00	1,928.10	482.02	3,782.74	945.69	
		10.25 10:15:00	0:15:00	1,912.46	478.12	3,819.72	954.93	
		10.25 10:30:00	0:15:00	1,875.74	468.94	3,848.01	962.00	
		10.25 10:45:00	0:15:00	1,843.73	460.93	3,974.06	993.52	
		10.25 11:00:00	0:15:00	1,813.45	453.36	4,041.06	1,010.27	
		10.25 11:15:00	0:15:00	1,794.59	448.65	4,171.34	1,042.84	
		10.25 11:30:00	0:15:00	1,771.52	442.88	4,252.48	1,063.12	
		10.25 11:45:00	0:15:00	1,759.11	439.78	4,475.07	1,118.77	
		10.25 12:00:00	0:15:00	1,796.08	449.02	4,609.32	1,152.33	
		10.25 12:15:00	0:15:00	1,887.40	471.85	4,643.31	1,160.83	
		10.25 12:30:00	0:15:00	2,113.46	528.37	4,610.06	1,152.52	
		10.25 12:45:00	0:15:00	2,440.02	610.01	4,716.77	1,179.19	
		10.25 13:00:00	0:15:00	2,782.47	695.62	5,057.47	1,264.37	
		10.25 13:15:00	0:15:00	3,142.03	785.51	5,407.11	1,351.78	
		10.25 13:30:00	0:15:00	3,512.51	878.13	5,724.74	1,431.18	
		10.25 13:45:00	0:15:00	3,904.09	976.02	6,180.58	1,545.15	
		10.25 14:00:00	0:15:00	4,321.96	1,080.49	6,880.35	1,720.09	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		10.25 14:15:00	0:15:00	4,783.77	1,195.94	7,863.51	1,965.88	
		10.25 14:30:00	0:15:00	5,287.25	1,321.81	8,939.47	2,234.87	
		10.25 14:45:00	0:15:00	5,866.68	1,466.67	8,412.41	2,103.10	
		10.25 15:00:00	0:15:00	6,639.65	1,659.91	7,584.34	1,896.09	
		10.25 15:15:00	0:15:00	7,716.11	1,929.03	6,434.68	1,608.67	
		10.25 15:30:00	0:15:00	9,142.21	2,285.55	5,114.05	1,278.51	
		10.25 15:45:00	0:15:00	10,621.41	2,655.35	4,053.47	1,013.37	
		10.25 16:00:00	0:15:00	11,583.22	2,895.81	3,091.66	772.91	
		10.25 16:15:00	0:09:00	13,196.92	1,979.54	1,477.96	221.69	
		10.25 16:18:00	0:01:48	13,679.81	410.39	995.07	29.85	39,854.05
1-Nov	8-Feb	11.01 07:36:35	0:04:12	12,224.43	855.71	671.24	46.99	
		11.01 07:45:00	0:11:24	10,265.32	1,950.41	1,342.47	255.07	
		11.01 08:00:00	0:15:00	7,467.47	1,866.87	2,401.06	600.27	
		11.01 08:15:00	0:15:00	5,281.05	1,320.26	2,982.22	745.56	
		11.01 08:30:00	0:15:00	3,570.58	892.64	3,231.11	807.78	
		11.01 08:45:00	0:15:00	2,516.45	629.11	3,416.98	854.24	
		11.01 09:00:00	0:15:00	2,073.51	518.38	3,637.58	909.39	
		11.01 09:15:00	0:15:00	2,033.81	508.45	3,858.18	964.55	
		11.01 09:30:00	0:15:00	2,013.46	503.37	4,046.52	1,011.63	
		11.01 09:45:00	0:15:00	2,001.05	500.26	4,268.61	1,067.15	
		11.01 10:00:00	0:15:00	1,986.91	496.73	4,297.40	1,074.35	
		11.01 10:15:00	0:15:00	1,974.75	493.69	4,346.28	1,086.57	
		11.01 10:30:00	0:15:00	1,932.07	483.02	4,383.01	1,095.75	
		11.01 10:45:00	0:15:00	1,900.55	475.14	4,503.86	1,125.96	
		11.01 11:00:00	0:15:00	1,866.56	466.64	4,581.77	1,145.44	
		11.01 11:15:00	0:15:00	1,846.46	461.61	4,726.94	1,181.74	
		11.01 11:30:00	0:15:00	1,824.62	456.16	4,819.00	1,204.75	
		11.01 11:45:00	0:15:00	1,812.46	453.12	5,090.23	1,272.56	
		11.01 12:00:00	0:15:00	1,857.38	464.34	5,212.81	1,303.20	
		11.01 12:15:00	0:15:00	1,955.89	488.97	5,251.52	1,312.88	
		11.01 12:30:00	0:15:00	2,202.55	550.64	5,213.06	1,303.26	
		11.01 12:45:00	0:15:00	2,535.31	633.83	5,403.14	1,350.78	
		11.01 13:00:00	0:15:00	2,878.75	719.69	5,704.64	1,426.16	
		11.01 13:15:00	0:15:00	3,247.99	812.00	5,998.94	1,499.73	
		11.01 13:30:00	0:15:00	3,620.70	905.18	6,274.13	1,568.53	
		11.01 13:45:00	0:15:00	4,020.72	1,005.18	6,782.83	1,695.71	
		11.01 14:00:00	0:15:00	4,442.56	1,110.64	7,694.77	1,923.69	
		11.01 14:15:00	0:15:00	4,913.55	1,228.39	8,779.91	2,194.98	
		11.01 14:30:00	0:15:00	5,423.24	1,355.81	9,240.72	2,310.18	
		11.01 14:45:00	0:15:00	6,053.28	1,513.32	8,621.60	2,155.40	
		11.01 15:00:00	0:15:00	6,909.88	1,727.47	7,760.03	1,940.01	
		11.01 15:15:00	0:15:00	8,130.27	2,032.57	6,414.83	1,603.71	
		11.01 15:30:00	0:15:00	9,665.05	2,416.26	4,962.93	1,240.73	
		11.01 15:45:00	0:15:00	10,713.97	2,678.49	3,960.91	990.23	
		11.01 16:00:00	0:12:36	11,978.77	2,515.54	2,696.11	566.18	
		11.01 16:10:12	0:05:24	13,443.58	1,209.92	1,231.30	110.82	42,945.93
8-Nov	1-Feb	11.08 07:43:48	0:00:36	12,186.71	121.87	999.78	10.00	
		11.08 07:45:00	0:07:48	11,961.40	1,554.98	1,067.77	138.81	
		11.08 08:00:00	0:15:00	9,005.23	2,251.31	1,977.23	494.31	
		11.08 08:15:00	0:15:00	6,002.41	1,500.60	3,204.56	801.14	
		11.08 08:30:00	0:15:00	4,112.78	1,028.19	3,552.46	888.12	
		11.08 08:45:00	0:15:00	2,847.23	711.81	3,751.23	937.81	
		11.08 09:00:00	0:15:00	2,228.35	557.09	3,973.07	993.27	
		11.08 09:15:00	0:15:00	2,106.02	526.50	4,228.17	1,057.04	
		11.08 09:30:00	0:15:00	2,080.96	520.24	4,436.61	1,109.15	
		11.08 09:45:00	0:15:00	2,064.08	516.02	4,703.37	1,175.84	
		11.08 10:00:00	0:15:00	2,046.22	511.55	4,785.75	1,196.44	
		11.08 10:15:00	0:15:00	2,036.79	509.20	4,856.72	1,214.18	
		11.08 10:30:00	0:15:00	1,993.11	498.28	4,902.38	1,225.60	
		11.08 10:45:00	0:15:00	1,956.14	489.03	5,026.95	1,256.74	
		11.08 11:00:00	0:15:00	1,921.40	480.35	5,111.57	1,277.89	
		11.08 11:15:00	0:15:00	1,901.05	475.26	5,266.91	1,316.73	
		11.08 11:30:00	0:15:00	1,876.23	469.06	5,371.87	1,342.97	
		11.08 11:45:00	0:15:00	1,864.08	466.02	5,688.01	1,422.00	
		11.08 12:00:00	0:15:00	1,914.20	478.55	5,808.36	1,452.09	
		11.08 12:15:00	0:15:00	2,020.66	505.16	5,858.24	1,464.56	
		11.08 12:30:00	0:15:00	2,273.27	568.32	5,827.22	1,456.81	
		11.08 12:45:00	0:15:00	2,609.26	652.32	6,064.20	1,516.05	
		11.08 13:00:00	0:15:00	2,962.87	740.72	6,305.40	1,576.35	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		11.08 13:15:00	0:15:00	3,330.87	832.72	6,540.64	1,635.16	
		11.08 13:30:00	0:15:00	3,706.31	926.58	6,764.22	1,691.06	
		11.08 13:45:00	0:15:00	4,110.79	1,027.70	7,370.19	1,842.55	
		11.08 14:00:00	0:15:00	4,534.38	1,133.59	8,286.35	2,071.59	
		11.08 14:15:00	0:15:00	4,997.67	1,249.42	9,290.85	2,322.71	
		11.08 14:30:00	0:15:00	5,508.85	1,377.21	9,166.03	2,291.51	
		11.08 14:45:00	0:15:00	6,188.27	1,547.07	8,486.60	2,121.65	
		11.08 15:00:00	0:15:00	7,149.34	1,787.34	7,525.53	1,881.38	
		11.08 15:15:00	0:15:00	8,441.19	2,110.30	6,233.68	1,558.42	
		11.08 15:30:00	0:15:00	9,789.62	2,447.41	4,885.26	1,221.31	
		11.08 15:45:00	0:15:00	10,851.69	2,712.92	3,823.19	955.80	
		11.08 16:00:00	0:09:00	12,633.87	1,895.08	2,041.00	306.15	
		11.08 16:03:00	0:01:48	13,170.37	395.11	1,504.51	45.14	45,268.29
15-Nov	25-Jan	11.15 07:51:00	0:04:48	12,537.84	1,003.03	971.25	77.70	
		11.15 08:00:00	0:12:00	10,828.86	2,165.77	1,235.27	247.05	
		11.15 08:15:00	0:15:00	7,638.69	1,909.67	2,590.40	647.60	
		11.15 08:30:00	0:15:00	4,731.90	1,182.98	3,810.29	952.57	
		11.15 08:45:00	0:15:00	3,266.35	816.59	4,069.35	1,017.34	
		11.15 09:00:00	0:15:00	2,410.00	602.50	4,271.84	1,067.96	
		11.15 09:15:00	0:15:00	2,177.48	544.37	4,558.20	1,139.55	
		11.15 09:30:00	0:15:00	2,147.21	536.80	4,775.58	1,193.89	
		11.15 09:45:00	0:15:00	2,127.61	531.90	5,094.20	1,273.55	
		11.15 10:00:00	0:15:00	2,106.27	526.57	5,250.78	1,312.69	
		11.15 10:15:00	0:15:00	2,093.11	523.28	5,339.12	1,334.78	
		11.15 10:30:00	0:15:00	2,050.68	512.67	5,383.04	1,345.76	
		11.15 10:45:00	0:15:00	2,012.72	503.18	5,520.51	1,380.13	
		11.15 11:00:00	0:15:00	1,975.74	493.94	5,620.02	1,405.00	
		11.15 11:15:00	0:15:00	1,952.66	488.17	5,782.55	1,445.64	
		11.15 11:30:00	0:15:00	1,929.09	482.27	5,893.97	1,473.49	
		11.15 11:45:00	0:15:00	1,915.44	478.86	6,244.60	1,561.15	
		11.15 12:00:00	0:15:00	1,963.58	490.90	6,370.16	1,592.54	
		11.15 12:15:00	0:15:00	2,077.98	519.49	6,437.91	1,609.48	
		11.15 12:30:00	0:15:00	2,328.11	582.03	6,424.26	1,606.07	
		11.15 12:45:00	0:15:00	2,663.35	665.84	6,672.65	1,668.16	
		11.15 13:00:00	0:15:00	3,016.72	754.18	6,843.13	1,710.78	
		11.15 13:15:00	0:15:00	3,388.44	847.11	7,018.57	1,754.64	
		11.15 13:30:00	0:15:00	3,768.10	942.03	7,212.87	1,803.22	
		11.15 13:45:00	0:15:00	4,169.35	1,042.34	7,887.33	1,971.83	
		11.15 14:00:00	0:15:00	4,590.71	1,147.68	8,734.01	2,183.50	
		11.15 14:15:00	0:15:00	5,043.82	1,260.96	9,631.06	2,407.76	
		11.15 14:30:00	0:15:00	5,565.18	1,391.29	9,109.70	2,277.43	
		11.15 14:45:00	0:15:00	6,290.26	1,572.57	8,384.62	2,096.15	
		11.15 15:00:00	0:15:00	7,337.19	1,834.30	7,337.69	1,834.42	
		11.15 15:15:00	0:15:00	8,613.66	2,153.41	6,061.22	1,515.31	
		11.15 15:30:00	0:15:00	9,791.85	2,447.96	4,883.02	1,220.76	
		11.15 15:45:00	0:13:48	11,083.46	2,549.20	3,591.42	826.03	
		11.15 15:57:36	0:06:36	12,979.54	1,427.75	1,695.34	186.49	47,140.43
22-Nov	18-Jan	11.22 07:57:36	0:01:12	13,460.95	269.22	299.26	5.99	
		11.22 08:00:00	0:09:00	13,123.71	1,968.56	267.25	40.09	
		11.22 08:15:00	0:15:00	9,656.61	2,414.15	1,633.55	408.39	
		11.22 08:30:00	0:15:00	5,958.74	1,489.68	3,565.61	891.40	
		11.22 08:45:00	0:15:00	3,720.71	930.18	4,342.06	1,085.52	
		11.22 09:00:00	0:15:00	2,666.58	666.65	4,524.70	1,131.18	
		11.22 09:15:00	0:15:00	2,254.16	563.54	4,833.89	1,208.47	
		11.22 09:30:00	0:15:00	2,215.45	553.86	5,068.89	1,267.22	
		11.22 09:45:00	0:15:00	2,189.15	547.29	5,420.26	1,355.07	
		11.22 10:00:00	0:15:00	2,161.85	540.46	5,657.74	1,414.43	
		11.22 10:15:00	0:15:00	2,147.46	536.87	5,777.09	1,444.27	
		11.22 10:30:00	0:15:00	2,108.75	527.19	5,825.98	1,456.50	
		11.22 10:45:00	0:15:00	2,066.31	516.58	5,967.17	1,491.79	
		11.22 11:00:00	0:15:00	2,026.12	506.53	6,069.91	1,517.48	
		11.22 11:15:00	0:15:00	2,001.30	500.33	6,246.84	1,561.71	
		11.22 11:30:00	0:15:00	1,977.73	494.43	6,366.19	1,591.55	
		11.22 11:45:00	0:15:00	1,964.08	491.02	6,726.25	1,681.56	
		11.22 12:00:00	0:15:00	2,007.75	501.94	6,884.32	1,721.08	
		11.22 12:15:00	0:15:00	2,118.67	529.67	6,966.46	1,741.62	
		11.22 12:30:00	0:15:00	2,360.62	590.15	6,954.05	1,738.51	
		11.22 12:45:00	0:15:00	2,693.88	673.47	7,196.99	1,799.25	
		11.22 13:00:00	0:15:00	3,044.51	761.13	7,305.68	1,826.42	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		11.22 13:15:00	0:15:00	3,418.22	854.55	7,429.25	1,857.31	
		11.22 13:30:00	0:15:00	3,795.15	948.79	7,587.57	1,896.89	
		11.22 13:45:00	0:15:00	4,190.20	1,047.55	8,277.42	2,069.35	
		11.22 14:00:00	0:15:00	4,606.09	1,151.52	9,054.61	2,263.65	
		11.22 14:15:00	0:15:00	5,050.27	1,262.57	9,624.60	2,406.15	
		11.22 14:30:00	0:15:00	5,577.34	1,394.33	9,097.54	2,274.39	
		11.22 14:45:00	0:15:00	6,341.38	1,585.35	8,333.50	2,083.37	
		11.22 15:00:00	0:15:00	7,388.81	1,847.20	7,286.07	1,821.52	
		11.22 15:15:00	0:15:00	8,629.04	2,157.26	6,045.84	1,511.46	
		11.22 15:30:00	0:15:00	9,789.37	2,447.34	4,885.51	1,221.38	
		11.22 15:45:00	0:12:00	11,304.31	2,260.86	3,370.57	674.11	
		11.22 15:54:00	0:04:48	13,153.49	1,052.28	1,521.39	121.71	48,580.78
29-Nov	11-Jan	11.29 08:04:12	0:05:24	14,133.42	1,272.01	10.42	0.94	
		11.29 08:15:00	0:12:36	11,497.12	2,414.39	884.15	185.67	
		11.29 08:30:00	0:15:00	7,998.50	1,999.63	2,502.06	625.52	
		11.29 08:45:00	0:15:00	4,565.64	1,141.41	4,290.70	1,072.67	
		11.29 09:00:00	0:15:00	3,003.56	750.89	4,751.75	1,187.94	
		11.29 09:15:00	0:15:00	2,390.89	597.72	5,029.68	1,257.42	
		11.29 09:30:00	0:15:00	2,270.54	567.64	5,302.64	1,325.66	
		11.29 09:45:00	0:15:00	2,245.23	561.31	5,619.03	1,404.76	
		11.29 10:00:00	0:15:00	2,213.47	553.37	5,927.47	1,481.87	
		11.29 10:15:00	0:15:00	2,196.84	549.21	6,144.35	1,536.09	
		11.29 10:30:00	0:15:00	2,163.59	540.90	6,204.90	1,551.23	
		11.29 10:45:00	0:15:00	2,117.93	529.48	6,344.61	1,586.15	
		11.29 11:00:00	0:15:00	2,072.77	518.19	6,442.62	1,610.66	
		11.29 11:15:00	0:15:00	2,043.73	510.93	6,629.73	1,657.43	
		11.29 11:30:00	0:15:00	2,019.42	504.85	6,756.28	1,689.07	
		11.29 11:45:00	0:15:00	2,005.02	501.26	7,088.30	1,772.08	
		11.29 12:00:00	0:15:00	2,029.84	507.46	7,314.11	1,828.53	
		11.29 12:15:00	0:15:00	2,133.07	533.27	7,420.32	1,855.08	
		11.29 12:30:00	0:15:00	2,372.03	593.01	7,417.09	1,854.27	
		11.29 12:45:00	0:15:00	2,696.36	674.09	7,636.95	1,909.24	
		11.29 13:00:00	0:15:00	3,048.97	762.24	7,711.15	1,927.79	
		11.29 13:15:00	0:15:00	3,419.21	854.80	7,768.97	1,942.24	
		11.29 13:30:00	0:15:00	3,794.90	948.73	7,885.10	1,971.27	
		11.29 13:45:00	0:15:00	4,183.00	1,045.75	8,547.15	2,136.79	
		11.29 14:00:00	0:15:00	4,591.70	1,147.93	9,259.58	2,314.90	
		11.29 14:15:00	0:15:00	5,023.47	1,255.87	9,651.40	2,412.85	
		11.29 14:30:00	0:15:00	5,542.10	1,385.53	9,132.78	2,283.19	
		11.29 14:45:00	0:15:00	6,322.52	1,580.63	8,352.36	2,088.09	
		11.29 15:00:00	0:15:00	7,366.97	1,841.74	7,307.91	1,826.98	
		11.29 15:15:00	0:15:00	8,515.14	2,128.79	6,159.74	1,539.93	
		11.29 15:30:00	0:15:00	9,715.43	2,428.86	4,959.45	1,239.86	
		11.29 15:45:00	0:10:48	11,618.46	2,091.32	3,056.42	550.16	
		11.29 15:51:36	0:03:00	13,407.59	670.38	1,267.28	63.36	49,689.67
6-Dec	4-Jan	12.06 08:15:00	0:10:12	13,525.46	2,299.33	155.59	26.45	
		12.06 08:30:00	0:15:00	9,565.05	2,391.26	1,863.58	465.90	
		12.06 08:45:00	0:15:00	6,366.94	1,591.74	3,305.06	826.27	
		12.06 09:00:00	0:15:00	3,354.94	838.74	4,919.25	1,229.81	
		12.06 09:15:00	0:15:00	2,540.52	635.13	5,164.67	1,291.17	
		12.06 09:30:00	0:15:00	2,320.66	580.17	5,444.33	1,361.08	
		12.06 09:45:00	0:15:00	2,290.14	572.54	5,764.69	1,441.17	
		12.06 10:00:00	0:15:00	2,256.15	564.04	6,035.91	1,508.98	
		12.06 10:15:00	0:15:00	2,234.81	558.70	6,326.74	1,581.69	
		12.06 10:30:00	0:15:00	2,209.25	552.31	6,469.42	1,617.36	
		12.06 10:45:00	0:15:00	2,160.61	540.15	6,630.97	1,657.74	
		12.06 11:00:00	0:15:00	2,111.48	527.87	6,719.55	1,679.89	
		12.06 11:15:00	0:15:00	2,080.96	520.24	6,916.58	1,729.15	
		12.06 11:30:00	0:15:00	2,054.16	513.54	7,052.82	1,763.20	
		12.06 11:45:00	0:15:00	2,038.03	509.51	7,405.43	1,851.36	
		12.06 12:00:00	0:15:00	2,064.08	516.02	7,661.27	1,915.32	
		12.06 12:15:00	0:15:00	2,159.87	539.97	7,767.72	1,941.93	
		12.06 12:30:00	0:15:00	2,362.85	590.71	7,774.92	1,943.73	
		12.06 12:45:00	0:15:00	2,672.78	668.20	7,973.19	1,993.30	
		12.06 13:00:00	0:15:00	3,025.15	756.29	8,032.00	2,008.00	
		12.06 13:15:00	0:15:00	3,392.16	848.04	8,033.24	2,008.31	
		12.06 13:30:00	0:15:00	3,764.13	941.03	8,081.13	2,020.28	
		12.06 13:45:00	0:15:00	4,150.99	1,037.75	8,694.30	2,173.58	
		12.06 14:00:00	0:15:00	4,551.75	1,137.94	9,357.35	2,339.34	

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		12.06 14:15:00	0:15:00	4,972.85	1,243.21	9,702.03	2,425.51	
		12.06 14:30:00	0:15:00	5,468.40	1,367.10	9,206.48	2,301.62	
		12.06 14:45:00	0:15:00	6,242.87	1,560.72	8,432.01	2,108.00	
		12.06 15:00:00	0:15:00	7,254.81	1,813.70	7,420.07	1,855.02	
		12.06 15:15:00	0:15:00	8,340.20	2,085.05	6,334.68	1,583.67	
		12.06 15:30:00	0:15:00	9,579.69	2,394.92	5,095.19	1,273.80	
		12.06 15:45:00	0:10:12	11,816.98	2,008.89	2,857.90	485.84	
		12.06 15:51:00	0:03:00	13,564.67	678.23	1,110.21	55.51	50,463.95
13-Dec	27-Dec	12.13 08:30:00	0:15:00	11,069.56	2,767.39	1,201.52	300.38	
		12.13 08:45:00	0:15:00	7,677.15	1,919.29	2,696.36	674.09	
		12.13 09:00:00	0:15:00	4,430.40	1,107.60	4,402.12	1,100.53	
		12.13 09:15:00	0:15:00	2,748.72	687.18	5,240.11	1,310.03	
		12.13 09:30:00	0:15:00	2,359.87	589.97	5,477.09	1,369.27	
		12.13 09:45:00	0:15:00	2,325.38	581.35	5,811.59	1,452.90	
		12.13 10:00:00	0:15:00	2,289.89	572.47	6,084.05	1,521.01	
		12.13 10:15:00	0:15:00	2,264.83	566.21	6,400.93	1,600.23	
		12.13 10:30:00	0:15:00	2,235.55	558.89	6,571.41	1,642.85	
		12.13 10:45:00	0:15:00	2,194.36	548.59	6,786.80	1,696.70	
		12.13 11:00:00	0:15:00	2,141.75	535.44	6,897.48	1,724.37	
		12.13 11:15:00	0:15:00	2,108.25	527.06	7,087.31	1,771.83	
		12.13 11:30:00	0:15:00	2,077.73	519.43	7,218.08	1,804.52	
		12.13 11:45:00	0:15:00	2,062.84	515.71	7,524.79	1,881.20	
		12.13 12:00:00	0:15:00	2,065.07	516.27	7,843.41	1,960.85	
		12.13 12:15:00	0:15:00	2,156.89	539.22	7,989.57	1,997.39	
		12.13 12:30:00	0:15:00	2,328.85	582.21	7,999.25	1,999.81	
		12.13 12:45:00	0:15:00	2,629.11	657.28	8,167.98	2,042.00	
		12.13 13:00:00	0:15:00	2,973.79	743.45	8,240.44	2,060.11	
		12.13 13:15:00	0:15:00	3,342.53	835.63	8,211.66	2,052.91	
		12.13 13:30:00	0:15:00	3,708.80	927.20	8,185.35	2,046.34	
		12.13 13:45:00	0:15:00	4,089.45	1,022.36	8,733.51	2,183.38	
		12.13 14:00:00	0:15:00	4,481.52	1,120.38	9,357.35	2,339.34	
		12.13 14:15:00	0:15:00	4,901.39	1,225.35	9,773.49	2,443.37	
		12.13 14:30:00	0:15:00	5,370.13	1,342.53	9,304.74	2,326.19	
		12.13 14:45:00	0:15:00	6,100.18	1,525.05	8,574.70	2,143.67	
		12.13 15:00:00	0:15:00	7,071.43	1,767.86	7,603.45	1,900.86	
		12.13 15:15:00	0:15:00	8,129.77	2,032.44	6,545.11	1,636.28	
		12.13 15:30:00	0:15:00	9,356.36	2,339.09	5,318.52	1,329.63	
		12.13 15:45:00	0:10:48	11,493.39	2,068.81	3,181.48	572.67	
		12.13 15:52:11	0:03:36	13,702.89	822.17	971.99	58.32	
20-Dec	No Mirror	12.20 08:30:00	0:12:36	12,341.56	2,591.73	657.09	137.99	
		12.20 08:45:00	0:15:00	8,635.74	2,158.94	2,286.17	571.54	
		12.20 09:00:00	0:15:00	5,331.67	1,332.92	3,890.19	972.55	
		12.20 09:15:00	0:15:00	2,967.83	741.96	5,244.32	1,311.08	
		12.20 09:30:00	0:15:00	2,418.19	604.55	5,456.24	1,364.06	
		12.20 09:45:00	0:15:00	2,341.51	585.38	5,778.83	1,444.71	
		12.20 10:00:00	0:15:00	2,307.51	576.88	6,069.66	1,517.42	
		12.20 10:15:00	0:15:00	2,280.47	570.12	6,379.84	1,594.96	
		12.20 10:30:00	0:15:00	2,249.94	562.49	6,583.82	1,645.96	
		12.20 10:45:00	0:15:00	2,215.20	553.80	6,798.71	1,699.68	
		12.20 11:00:00	0:15:00	2,161.60	540.40	6,949.83	1,737.46	
		12.20 11:15:00	0:15:00	2,122.40	530.60	7,132.47	1,783.12	
		12.20 11:30:00	0:15:00	2,091.63	522.91	7,258.03	1,814.51	
		12.20 11:45:00	0:15:00	2,074.01	518.50	7,514.37	1,878.59	
		12.20 12:00:00	0:15:00	2,059.12	514.78	7,888.57	1,972.14	
		12.20 12:15:00	0:15:00	2,141.26	535.31	8,066.00	2,016.50	
		12.20 12:30:00	0:15:00	2,287.17	571.79	8,081.13	2,020.28	
		12.20 12:45:00	0:15:00	2,565.09	641.27	8,216.13	2,054.03	
		12.20 13:00:00	0:15:00	2,904.30	726.08	8,336.72	2,084.18	
		12.20 13:15:00	0:15:00	3,269.58	817.39	8,297.52	2,074.38	
		12.20 13:30:00	0:15:00	3,634.60	908.65	8,220.84	2,055.21	
		12.20 13:45:00	0:15:00	4,011.53	1,002.88	8,662.04	2,165.51	
		12.20 14:00:00	0:15:00	4,401.62	1,100.41	9,282.66	2,320.66	
		12.20 14:15:00	0:15:00	4,814.78	1,203.70	9,860.09	2,465.02	
		12.20 14:30:00	0:15:00	5,258.22	1,314.56	9,416.66	2,354.16	
		12.20 14:45:00	0:15:00	5,923.50	1,480.88	8,751.38	2,187.84	
		12.20 15:00:00	0:15:00	6,863.48	1,715.87	7,811.40	1,952.85	
		12.20 15:15:00	0:15:00	7,886.34	1,971.59	6,788.54	1,697.14	
		12.20 15:30:00	0:15:00	9,083.40	2,270.85	5,591.48	1,397.87	
		12.20 15:45:00	0:12:36	10,865.09	2,281.67	3,809.79	800.06	23,818.82

1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

Date	Mirror	Date+Time	Duration	ExSF	ExSfHr	NewSF	NewSFHr	New SFHR Total/day
		12.20 15:54:36	0:04:48	13,687.75	1,095.02	987.13	78.97	51,091.45
						2,771,798.34	687,103.12	



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	06.21 06:46:48	0:06:36	11,691.41	1,286.06	0.00	0.00	2,983.46	328.18
172	06.21 07:00:00	0:13:48	10,187.90	2,343.22	0.00	0.00	4,486.98	1,032.01
172	06.21 07:15:00	0:15:00	8,436.73	2,109.18	0.00	0.00	6,238.15	1,559.54
172	06.21 07:30:00	0:15:00	6,354.04	1,588.51	0.00	0.00	8,320.84	2,080.21
172	06.21 07:45:00	0:15:00	4,597.90	1,149.48	0.00	0.00	10,076.97	2,519.24
172	06.21 08:00:00	0:15:00	3,307.79	826.95	0.00	0.00	11,367.09	2,841.77
172	06.21 08:15:00	0:15:00	2,380.22	595.06	0.00	0.00	12,294.66	3,073.66
172	06.21 08:30:00	0:15:00	1,736.53	434.13	0.00	0.00	12,938.35	3,234.59
172	06.21 08:45:00	0:15:00	1,362.08	340.52	0.00	0.00	13,312.80	3,328.20
172	06.21 09:00:00	0:15:00	1,321.63	330.41	0.00	0.00	13,353.25	3,338.31
172	06.21 09:15:00	0:15:00	1,311.45	327.86	29.03	7.26	13,334.39	3,333.60
172	06.21 09:30:00	0:15:00	1,328.58	332.14	175.69	43.92	13,170.61	3,292.65
172	06.21 09:45:00	0:15:00	1,346.19	336.55	316.14	79.04	13,012.55	3,253.14
172	06.21 10:00:00	0:15:00	1,361.08	340.27	425.32	106.33	12,888.47	3,222.12
172	06.21 10:15:00	0:15:00	1,373.74	343.44	501.75	125.44	12,799.39	3,199.85
172	06.21 10:30:00	0:15:00	1,384.66	346.16	542.94	135.74	12,747.28	3,186.82
172	06.21 10:45:00	0:15:00	1,388.63	347.16	592.57	148.14	12,693.68	3,173.42
172	06.21 11:00:00	0:15:00	1,375.48	343.87	637.74	159.43	12,661.67	3,165.42
172	06.21 11:15:00	0:15:00	1,366.05	341.51	701.01	175.25	12,607.82	3,151.96
172	06.21 11:30:00	0:15:00	1,351.65	337.91	742.70	185.68	12,580.52	3,145.13
172	06.21 11:45:00	0:15:00	1,339.74	334.94	793.57	198.39	12,541.56	3,135.39
172	06.21 12:00:00	0:15:00	1,325.35	331.34	814.42	203.60	12,535.11	3,133.78
172	06.21 12:15:00	0:15:00	1,314.43	328.61	862.31	215.58	12,498.14	3,124.53
172	06.21 12:30:00	0:15:00	1,296.81	324.20	869.75	217.44	12,508.31	3,127.08
172	06.21 12:45:00	0:15:00	1,285.65	321.41	912.68	228.17	12,476.55	3,119.14
172	06.21 13:00:00	0:15:00	1,267.78	316.95	902.26	225.57	12,504.84	3,126.21
172	06.21 13:15:00	0:15:00	1,266.79	316.70	939.73	234.93	12,468.36	3,117.09
172	06.21 13:30:00	0:15:00	1,289.62	322.40	917.89	229.47	12,467.37	3,116.84
172	06.21 13:45:00	0:15:00	1,339.25	334.81	915.16	228.79	12,420.47	3,105.12
172	06.21 14:00:00	0:15:00	1,404.51	351.13	858.34	214.59	12,412.03	3,103.01
172	06.21 14:15:00	0:15:00	1,599.30	399.83	833.77	208.44	12,241.80	3,060.45
172	06.21 14:30:00	0:15:00	1,815.94	453.98	770.74	192.69	12,088.20	3,022.05
172	06.21 14:45:00	0:15:00	2,036.79	509.20	735.51	183.88	11,902.59	2,975.65
172	06.21 15:00:00	0:15:00	2,257.88	564.47	671.73	167.93	11,745.26	2,936.32
172	06.21 15:15:00	0:15:00	2,464.59	616.15	625.08	156.27	11,585.21	2,896.30
172	06.21 15:30:00	0:15:00	2,660.13	665.03	543.69	135.92	11,471.06	2,867.77
172	06.21 15:45:00	0:15:00	2,867.08	716.77	435.25	108.81	11,372.55	2,843.14
172	06.21 16:00:00	0:15:00	3,068.58	767.14	299.51	74.88	11,306.79	2,826.70
172	06.21 16:15:00	0:15:00	3,275.53	818.88	149.14	37.28	11,250.21	2,812.55
172	06.21 16:30:00	0:15:00	3,488.69	872.17	0.00	0.00	11,186.19	2,796.55
172	06.21 16:45:00	0:15:00	3,731.13	932.78	0.00	0.00	10,943.75	2,735.94
172	06.21 17:00:00	0:15:00	4,124.19	1,031.05	0.00	0.00	10,550.69	2,637.67
172	06.21 17:15:00	0:15:00	4,698.40	1,174.60	0.00	0.00	9,976.48	2,494.12
172	06.21 17:30:00	0:15:00	5,378.57	1,344.64	0.00	0.00	9,296.31	2,324.08
172	06.21 17:45:00	0:15:00	6,158.99	1,539.75	0.00	0.00	8,515.89	2,128.97
172	06.21 18:00:00	0:15:00	7,046.61	1,761.65	0.00	0.00	7,628.27	1,907.07
172	06.21 18:15:00	0:15:00	8,145.40	2,036.35	0.00	0.00	6,529.47	1,632.37
172	06.21 18:30:00	0:15:00	9,548.92	2,387.23	0.00	0.00	5,125.96	1,281.49
172	06.21 18:45:00	0:15:00	11,147.23	2,786.81	0.00	0.00	3,527.65	881.91
172	06.21 19:00:00	0:15:00	12,906.34	3,226.59	0.00	0.00	1,768.54	442.14
172	06.21 19:15:00	0:18:00	14,598.70	4,379.61	0.00	0.00	76.18	22.85
172	06.21 19:36:00	0:10:48	14,674.88	2,641.48	0.00	0.00	0.00	0.00
179	06.28 06:48:35	0:06:00	11,729.88	1,172.99	0.00	0.00	2,945.00	294.50
179	06.28 07:00:00	0:13:12	10,432.82	2,295.22	0.00	0.00	4,242.06	933.25
179	06.28 07:15:00	0:15:00	8,685.12	2,171.28	0.00	0.00	5,989.76	1,497.44
179	06.28 07:30:00	0:15:00	6,615.09	1,653.77	0.00	0.00	8,059.79	2,014.95
179	06.28 07:45:00	0:15:00	4,777.31	1,194.33	0.00	0.00	9,897.56	2,474.39
179	06.28 08:00:00	0:15:00	3,441.05	860.26	0.00	0.00	11,233.83	2,808.46



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr	
179	06.28 08:15:00	0:15:00		2,472.78	618.20	0.00	0.00	12,202.10	3,050.53
179	06.28 08:30:00	0:15:00		1,802.54	450.63	0.00	0.00	12,872.34	3,218.09
179	06.28 08:45:00	0:15:00		1,378.95	344.74	0.00	0.00	13,295.93	3,323.98
179	06.28 09:00:00	0:15:00		1,321.88	330.47	0.00	0.00	13,353.00	3,338.25
179	06.28 09:15:00	0:15:00		1,310.96	327.74	26.30	6.58	13,337.62	3,334.40
179	06.28 09:30:00	0:15:00		1,328.58	332.14	175.69	43.92	13,170.61	3,292.65
179	06.28 09:45:00	0:15:00		1,345.70	336.42	318.62	79.66	13,010.56	3,252.64
179	06.28 10:00:00	0:15:00		1,361.08	340.27	429.54	107.39	12,884.25	3,221.06
179	06.28 10:15:00	0:15:00		1,373.99	343.50	504.98	126.24	12,795.91	3,198.98
179	06.28 10:30:00	0:15:00		1,385.40	346.35	546.67	136.67	12,742.81	3,185.70
179	06.28 10:45:00	0:15:00		1,391.61	347.90	594.56	148.64	12,688.71	3,172.18
179	06.28 11:00:00	0:15:00		1,379.20	344.80	640.96	160.24	12,654.72	3,163.68
179	06.28 11:15:00	0:15:00		1,368.28	342.07	703.00	175.75	12,603.60	3,150.90
179	06.28 11:30:00	0:15:00		1,354.63	338.66	746.18	186.54	12,574.07	3,143.52
179	06.28 11:45:00	0:15:00		1,342.72	335.68	798.54	199.63	12,533.62	3,133.41
179	06.28 12:00:00	0:15:00		1,328.82	332.21	820.62	205.16	12,525.43	3,131.36
179	06.28 12:15:00	0:15:00		1,317.41	329.35	869.51	217.38	12,487.96	3,121.99
179	06.28 12:30:00	0:15:00		1,301.03	325.26	876.70	219.18	12,497.15	3,124.29
179	06.28 12:45:00	0:15:00		1,287.88	321.97	920.13	230.03	12,466.87	3,116.72
179	06.28 13:00:00	0:15:00		1,270.01	317.50	912.68	228.17	12,492.18	3,123.05
179	06.28 13:15:00	0:15:00		1,268.03	317.01	947.92	236.98	12,458.93	3,114.73
179	06.28 13:30:00	0:15:00		1,288.13	322.03	930.05	232.51	12,456.70	3,114.17
179	06.28 13:45:00	0:15:00		1,335.77	333.94	928.81	232.20	12,410.29	3,102.57
179	06.28 14:00:00	0:15:00		1,397.31	349.33	871.24	217.81	12,406.32	3,101.58
179	06.28 14:15:00	0:15:00		1,582.68	395.67	849.16	212.29	12,243.04	3,060.76
179	06.28 14:30:00	0:15:00		1,800.55	450.14	785.38	196.35	12,088.94	3,022.24
179	06.28 14:45:00	0:15:00		2,022.14	505.54	748.66	187.16	11,904.08	2,976.02
179	06.28 15:00:00	0:15:00		2,244.98	561.25	685.88	171.47	11,744.02	2,936.01
179	06.28 15:15:00	0:15:00		2,449.45	612.36	641.21	160.30	11,584.22	2,896.05
179	06.28 15:30:00	0:15:00		2,650.70	662.68	566.02	141.51	11,458.16	2,864.54
179	06.28 15:45:00	0:15:00		2,855.42	713.86	462.05	115.51	11,357.41	2,839.35
179	06.28 16:00:00	0:15:00		3,055.67	763.92	327.80	81.95	11,291.40	2,822.85
179	06.28 16:15:00	0:15:00		3,269.08	817.27	181.40	45.35	11,224.40	2,806.10
179	06.28 16:30:00	0:15:00		3,471.57	867.89	5.21	1.30	11,198.10	2,799.53
179	06.28 16:45:00	0:15:00		3,716.98	929.25	0.00	0.00	10,957.89	2,739.47
179	06.28 17:00:00	0:15:00		4,072.83	1,018.21	0.00	0.00	10,602.05	2,650.51
179	06.28 17:15:00	0:15:00		4,652.00	1,163.00	0.00	0.00	10,022.88	2,505.72
179	06.28 17:30:00	0:15:00		5,328.69	1,332.17	0.00	0.00	9,346.18	2,336.55
179	06.28 17:45:00	0:15:00		6,098.44	1,524.61	0.00	0.00	8,576.43	2,144.11
179	06.28 18:00:00	0:15:00		6,990.28	1,747.57	0.00	0.00	7,684.60	1,921.15
179	06.28 18:15:00	0:15:00		8,056.07	2,014.02	0.00	0.00	6,618.81	1,654.70
179	06.28 18:30:00	0:15:00		9,438.00	2,359.50	0.00	0.00	5,236.88	1,309.22
179	06.28 18:45:00	0:15:00		11,047.97	2,761.99	0.00	0.00	3,626.91	906.73
179	06.28 19:00:00	0:15:00		12,815.27	3,203.82	0.00	0.00	1,859.61	464.90
179	06.28 19:15:00	0:18:00		14,539.64	4,361.89	0.00	0.00	135.24	40.57
179	06.28 19:36:36	0:10:48		14,674.88	2,641.48	0.00	0.00	0.00	0.00
186	07.05 06:52:12	0:03:36		11,801.09	708.07	0.00	0.00	2,873.78	172.43
186	07.05 07:00:00	0:11:24		10,838.78	2,059.37	0.00	0.00	3,836.09	728.86
186	07.05 07:15:00	0:15:00		9,052.13	2,263.03	0.00	0.00	5,622.75	1,405.69
186	07.05 07:30:00	0:15:00		7,000.95	1,750.24	0.00	0.00	7,673.93	1,918.48
186	07.05 07:45:00	0:15:00		5,047.30	1,261.82	0.00	0.00	9,627.58	2,406.90
186	07.05 08:00:00	0:15:00		3,629.14	907.29	0.00	0.00	11,045.74	2,761.43
186	07.05 08:15:00	0:15:00		2,590.90	647.72	0.00	0.00	12,083.98	3,021.00
186	07.05 08:30:00	0:15:00		1,881.94	470.49	0.00	0.00	12,792.94	3,198.23
186	07.05 08:45:00	0:15:00		1,398.06	349.51	0.00	0.00	13,276.82	3,319.21
186	07.05 09:00:00	0:15:00		1,320.14	330.04	0.00	0.00	13,354.74	3,338.69
186	07.05 09:15:00	0:15:00		1,314.93	328.73	51.37	12.84	13,308.58	3,327.15
186	07.05 09:30:00	0:15:00		1,333.04	333.26	206.95	51.74	13,134.88	3,283.72



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
186	07.05 09:45:00	0:15:00	1,349.17	337.29	355.35	88.84	12,970.36	3,242.59
186	07.05 10:00:00	0:15:00	1,364.06	341.02	463.04	115.76	12,847.78	3,211.94
186	07.05 10:15:00	0:15:00	1,377.71	344.43	524.58	131.15	12,772.59	3,193.15
186	07.05 10:30:00	0:15:00	1,388.63	347.16	565.53	141.38	12,720.73	3,180.18
186	07.05 10:45:00	0:15:00	1,397.56	349.39	616.15	154.04	12,661.17	3,165.29
186	07.05 11:00:00	0:15:00	1,386.64	346.66	661.06	165.27	12,627.17	3,156.79
186	07.05 11:15:00	0:15:00	1,373.24	343.31	724.84	181.21	12,576.80	3,144.20
186	07.05 11:30:00	0:15:00	1,360.59	340.15	769.75	192.44	12,544.54	3,136.14
186	07.05 11:45:00	0:15:00	1,349.17	337.29	821.61	205.40	12,504.09	3,126.02
186	07.05 12:00:00	0:15:00	1,334.28	333.57	845.44	211.36	12,495.16	3,123.79
186	07.05 12:15:00	0:15:00	1,324.61	331.15	895.06	223.77	12,455.21	3,113.80
186	07.05 12:30:00	0:15:00	1,307.98	327.00	905.24	226.31	12,461.66	3,115.42
186	07.05 12:45:00	0:15:00	1,293.59	323.40	948.66	237.17	12,432.63	3,108.16
186	07.05 13:00:00	0:15:00	1,275.97	318.99	941.72	235.43	12,457.19	3,114.30
186	07.05 13:15:00	0:15:00	1,271.01	317.75	979.68	244.92	12,424.19	3,106.05
186	07.05 13:30:00	0:15:00	1,289.87	322.47	962.81	240.70	12,422.21	3,105.55
186	07.05 13:45:00	0:15:00	1,337.26	334.32	963.30	240.83	12,374.31	3,093.58
186	07.05 14:00:00	0:15:00	1,397.56	349.39	905.24	226.31	12,372.08	3,093.02
186	07.05 14:15:00	0:15:00	1,578.46	394.62	884.64	221.16	12,211.78	3,052.94
186	07.05 14:30:00	0:15:00	1,790.38	447.59	819.88	204.97	12,064.63	3,016.16
186	07.05 14:45:00	0:15:00	2,016.69	504.17	780.92	195.23	11,877.28	2,969.32
186	07.05 15:00:00	0:15:00	2,241.26	560.31	716.90	179.22	11,716.73	2,929.18
186	07.05 15:15:00	0:15:00	2,453.17	613.29	672.97	168.24	11,548.73	2,887.18
186	07.05 15:30:00	0:15:00	2,655.17	663.79	603.00	150.75	11,416.72	2,854.18
186	07.05 15:45:00	0:15:00	2,861.38	715.34	520.36	130.09	11,293.14	2,823.29
186	07.05 16:00:00	0:15:00	3,067.59	766.90	388.85	97.21	11,218.45	2,804.61
186	07.05 16:15:00	0:15:00	3,283.72	820.93	247.90	61.98	11,143.26	2,785.82
186	07.05 16:30:00	0:15:00	3,490.92	872.73	63.53	15.88	11,120.43	2,780.11
186	07.05 16:45:00	0:15:00	3,727.41	931.85	0.00	0.00	10,947.47	2,736.87
186	07.05 17:00:00	0:15:00	4,070.84	1,017.71	0.00	0.00	10,604.04	2,651.01
186	07.05 17:15:00	0:15:00	4,646.04	1,161.51	0.00	0.00	10,028.83	2,507.21
186	07.05 17:30:00	0:15:00	5,319.02	1,329.75	0.00	0.00	9,355.86	2,338.97
186	07.05 17:45:00	0:15:00	6,087.53	1,521.88	0.00	0.00	8,587.35	2,146.84
186	07.05 18:00:00	0:15:00	6,988.05	1,747.01	0.00	0.00	7,686.83	1,921.71
186	07.05 18:15:00	0:15:00	8,069.97	2,017.49	0.00	0.00	6,604.91	1,651.23
186	07.05 18:30:00	0:15:00	9,496.81	2,374.20	0.00	0.00	5,178.07	1,294.52
186	07.05 18:45:00	0:15:00	11,119.19	2,779.80	0.00	0.00	3,555.69	888.92
186	07.05 19:00:00	0:15:00	12,855.47	3,213.87	0.00	0.00	1,819.41	454.85
186	07.05 19:15:00	0:18:00	14,585.05	4,375.51	0.00	0.00	89.83	26.95
186	07.05 19:36:00	0:10:48	14,674.88	2,641.48	0.00	0.00	0.00	0.00
193	07.12 06:56:24	0:01:48	11,927.40	357.82	0.00	0.00	2,747.48	82.42
193	07.12 07:00:00	0:09:00	11,514.98	1,727.25	0.00	0.00	3,159.90	473.98
193	07.12 07:15:00	0:15:00	9,617.41	2,404.35	0.00	0.00	5,057.47	1,264.37
193	07.12 07:30:00	0:15:00	7,539.43	1,884.86	0.00	0.00	7,135.45	1,783.86
193	07.12 07:45:00	0:15:00	5,455.75	1,363.94	0.00	0.00	9,219.13	2,304.78
193	07.12 08:00:00	0:15:00	3,872.32	968.08	0.00	0.00	10,802.55	2,700.64
193	07.12 08:15:00	0:15:00	2,748.97	687.24	0.00	0.00	11,925.91	2,981.48
193	07.12 08:30:00	0:15:00	1,968.05	492.01	0.00	0.00	12,706.83	3,176.71
193	07.12 08:45:00	0:15:00	1,452.90	363.22	0.00	0.00	13,221.98	3,305.50
193	07.12 09:00:00	0:15:00	1,315.18	328.79	0.00	0.00	13,359.70	3,339.93
193	07.12 09:15:00	0:15:00	1,321.13	330.28	108.19	27.05	13,245.55	3,311.39
193	07.12 09:30:00	0:15:00	1,339.25	334.81	268.99	67.25	13,066.64	3,266.66
193	07.12 09:45:00	0:15:00	1,357.86	339.46	421.60	105.40	12,895.42	3,223.86
193	07.12 10:00:00	0:15:00	1,370.26	342.57	507.46	126.87	12,797.15	3,199.29
193	07.12 10:15:00	0:15:00	1,385.40	346.35	561.56	140.39	12,727.92	3,181.98
193	07.12 10:30:00	0:15:00	1,395.58	348.89	602.50	150.63	12,676.80	3,169.20
193	07.12 10:45:00	0:15:00	1,407.24	351.81	651.88	162.97	12,615.76	3,153.94
193	07.12 11:00:00	0:15:00	1,395.33	348.83	699.28	174.82	12,580.27	3,145.07



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
193	07.12 11:15:00	0:15:00	1,384.16	346.04	763.05	190.76	12,527.67	3,131.92
193	07.12 11:30:00	0:15:00	1,371.26	342.81	808.96	202.24	12,494.66	3,123.67
193	07.12 11:45:00	0:15:00	1,360.09	340.02	863.30	215.83	12,451.49	3,112.87
193	07.12 12:00:00	0:15:00	1,344.21	336.05	890.60	222.65	12,440.07	3,110.02
193	07.12 12:15:00	0:15:00	1,331.31	332.83	940.72	235.18	12,402.85	3,100.71
193	07.12 12:30:00	0:15:00	1,314.18	328.55	953.87	238.47	12,406.82	3,101.71
193	07.12 12:45:00	0:15:00	1,302.27	325.57	998.54	249.64	12,374.06	3,093.52
193	07.12 13:00:00	0:15:00	1,282.67	320.67	995.81	248.95	12,396.40	3,099.10
193	07.12 13:15:00	0:15:00	1,276.47	319.12	1,034.27	258.57	12,364.14	3,091.04
193	07.12 13:30:00	0:15:00	1,294.33	323.58	1,019.88	254.97	12,360.66	3,090.17
193	07.12 13:45:00	0:15:00	1,339.99	335.00	1,018.89	254.72	12,316.00	3,079.00
193	07.12 14:00:00	0:15:00	1,405.00	351.25	960.33	240.08	12,309.55	3,077.39
193	07.12 14:15:00	0:15:00	1,583.92	395.98	937.00	234.25	12,153.96	3,038.49
193	07.12 14:30:00	0:15:00	1,797.08	449.27	872.23	218.06	12,005.57	3,001.39
193	07.12 14:45:00	0:15:00	2,024.13	506.03	831.79	207.95	11,818.96	2,954.74
193	07.12 15:00:00	0:15:00	2,253.67	563.42	765.04	191.26	11,656.18	2,914.04
193	07.12 15:15:00	0:15:00	2,467.82	616.95	722.35	180.59	11,484.71	2,871.18
193	07.12 15:30:00	0:15:00	2,675.02	668.75	654.11	163.53	11,345.75	2,836.44
193	07.12 15:45:00	0:15:00	2,888.18	722.04	593.57	148.39	11,193.14	2,798.28
193	07.12 16:00:00	0:15:00	3,098.60	774.65	480.66	120.17	11,095.61	2,773.90
193	07.12 16:15:00	0:15:00	3,322.68	830.67	347.41	86.85	11,004.79	2,751.20
193	07.12 16:30:00	0:15:00	3,542.54	885.63	162.78	40.70	10,969.56	2,742.39
193	07.12 16:45:00	0:15:00	3,769.34	942.34	0.00	0.00	10,905.53	2,726.38
193	07.12 17:00:00	0:15:00	4,117.74	1,029.44	0.00	0.00	10,557.14	2,639.28
193	07.12 17:15:00	0:15:00	4,674.33	1,168.58	0.00	0.00	10,000.55	2,500.14
193	07.12 17:30:00	0:15:00	5,345.32	1,336.33	0.00	0.00	9,329.56	2,332.39
193	07.12 17:45:00	0:15:00	6,137.16	1,534.29	0.00	0.00	8,537.72	2,134.43
193	07.12 18:00:00	0:15:00	7,055.79	1,763.95	0.00	0.00	7,619.09	1,904.77
193	07.12 18:15:00	0:15:00	8,193.54	2,048.39	0.00	0.00	6,481.33	1,620.33
193	07.12 18:30:00	0:15:00	9,682.42	2,420.61	0.00	0.00	4,992.46	1,248.11
193	07.12 18:45:00	0:15:00	11,384.21	2,846.05	0.00	0.00	3,290.67	822.67
193	07.12 19:00:00	0:15:00	13,096.67	3,274.17	0.00	0.00	1,578.21	394.55
193	07.12 19:15:00	0:16:48	14,674.88	4,108.97	0.00	0.00	0.00	0.00
193	07.12 19:33:36	0:09:00	14,674.88	2,201.23	0.00	0.00	0.00	0.00
200	07.19 07:01:11	0:07:48	12,130.63	1,576.98	0.00	0.00	2,544.24	330.75
200	07.19 07:16:11	0:14:24	10,217.67	2,452.24	0.00	0.00	4,457.20	1,069.73
200	07.19 07:30:00	0:14:24	8,234.24	1,976.22	0.00	0.00	6,440.64	1,545.75
200	07.19 07:45:00	0:15:00	5,938.89	1,484.72	0.00	0.00	8,735.99	2,184.00
200	07.19 08:00:00	0:15:00	4,191.69	1,047.92	0.00	0.00	10,483.19	2,620.80
200	07.19 08:15:00	0:15:00	2,927.13	731.78	0.00	0.00	11,747.74	2,936.94
200	07.19 08:30:00	0:15:00	2,074.01	518.50	0.00	0.00	12,600.87	3,150.22
200	07.19 08:45:00	0:15:00	1,539.75	384.94	0.00	0.00	13,135.13	3,283.78
200	07.19 09:00:00	0:15:00	1,309.72	327.43	27.30	6.82	13,337.87	3,334.47
200	07.19 09:15:00	0:15:00	1,331.31	332.83	202.74	50.68	13,140.84	3,285.21
200	07.19 09:30:00	0:15:00	1,348.92	337.23	369.49	92.37	12,956.46	3,239.12
200	07.19 09:45:00	0:15:00	1,366.29	341.57	511.93	127.98	12,796.66	3,199.16
200	07.19 10:00:00	0:15:00	1,381.68	345.42	564.78	141.20	12,728.42	3,182.10
200	07.19 10:15:00	0:15:00	1,394.83	348.71	610.19	152.55	12,669.86	3,167.46
200	07.19 10:30:00	0:15:00	1,406.25	351.56	653.87	163.47	12,614.77	3,153.69
200	07.19 10:45:00	0:15:00	1,417.41	354.35	706.22	176.56	12,551.24	3,137.81
200	07.19 11:00:00	0:15:00	1,408.73	352.18	755.61	188.90	12,510.55	3,127.64
200	07.19 11:15:00	0:15:00	1,398.06	349.51	820.37	205.09	12,456.45	3,114.11
200	07.19 11:30:00	0:15:00	1,381.93	345.48	867.02	216.76	12,425.93	3,106.48
200	07.19 11:45:00	0:15:00	1,371.51	342.88	924.59	231.15	12,378.78	3,094.70
200	07.19 12:00:00	0:15:00	1,355.38	338.84	953.38	238.35	12,366.12	3,091.53
200	07.19 12:15:00	0:15:00	1,344.71	336.18	1,005.74	251.43	12,324.44	3,081.11
200	07.19 12:30:00	0:15:00	1,328.33	332.08	1,022.36	255.59	12,324.19	3,081.05
200	07.19 12:45:00	0:15:00	1,315.67	328.92	1,069.26	267.32	12,289.94	3,072.49



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr	
200	07.19 13:00:00	0:15:00		1,296.32	324.08	1,070.50	267.63	12,308.06	3,077.01
200	07.19 13:15:00	0:15:00		1,289.37	322.34	1,111.94	277.99	12,273.57	3,068.39
200	07.19 13:30:00	0:15:00		1,306.49	326.62	1,099.29	274.82	12,269.10	3,067.28
200	07.19 13:45:00	0:15:00		1,353.14	338.29	1,095.57	273.89	12,226.17	3,056.54
200	07.19 14:00:00	0:15:00		1,415.68	353.92	1,035.02	258.76	12,224.18	3,056.05
200	07.19 14:15:00	0:15:00		1,597.32	399.33	1,008.72	252.18	12,068.84	3,017.21
200	07.19 14:30:00	0:15:00		1,818.42	454.60	941.47	235.37	11,914.99	2,978.75
200	07.19 14:45:00	0:15:00		2,051.43	512.86	899.28	224.82	11,724.17	2,931.04
200	07.19 15:00:00	0:15:00		2,282.70	570.67	831.54	207.89	11,560.64	2,890.16
200	07.19 15:15:00	0:15:00		2,497.84	624.46	784.14	196.04	11,392.89	2,848.22
200	07.19 15:30:00	0:15:00		2,715.71	678.93	719.38	179.84	11,239.79	2,809.95
200	07.19 15:45:00	0:15:00		2,940.53	735.13	668.01	167.00	11,066.33	2,766.58
200	07.19 16:00:00	0:15:00		3,156.92	789.23	587.61	146.90	10,930.35	2,732.59
200	07.19 16:15:00	0:15:00		3,389.93	847.48	471.73	117.93	10,813.22	2,703.31
200	07.19 16:30:00	0:15:00		3,618.47	904.62	296.78	74.20	10,759.62	2,689.91
200	07.19 16:45:00	0:15:00		3,862.15	965.54	99.51	24.88	10,713.22	2,678.31
200	07.19 17:00:00	0:15:00		4,218.98	1,054.75	0.00	0.00	10,455.89	2,613.97
200	07.19 17:15:00	0:15:00		4,761.43	1,190.36	0.00	0.00	9,913.45	2,478.36
200	07.19 17:30:00	0:15:00		5,440.36	1,360.09	0.00	0.00	9,234.52	2,308.63
200	07.19 17:45:00	0:15:00		6,261.97	1,565.49	0.00	0.00	8,412.91	2,103.23
200	07.19 18:00:00	0:15:00		7,202.94	1,800.74	0.00	0.00	7,471.93	1,867.98
200	07.19 18:15:00	0:15:00		8,441.19	2,110.30	0.00	0.00	6,233.68	1,558.42
200	07.19 18:30:00	0:15:00		10,041.24	2,510.31	0.00	0.00	4,633.64	1,158.41
200	07.19 18:45:00	0:15:00		11,872.31	2,968.08	0.00	0.00	2,802.57	700.64
200	07.19 19:00:00	0:15:00		13,500.15	3,375.04	0.00	0.00	1,174.73	293.68
200	07.19 19:15:00	0:15:00		14,674.88	3,668.72	0.00	0.00	0.00	0.00
200	07.19 19:30:00	0:07:48		14,674.88	1,907.73	0.00	0.00	0.00	0.00
207	07.26 07:07:12	0:03:36		12,403.35	744.20	0.00	0.00	2,271.53	136.29
207	07.26 07:15:00	0:11:24		11,416.22	2,169.08	0.00	0.00	3,258.66	619.15
207	07.26 07:30:00	0:15:00		8,887.61	2,221.90	0.00	0.00	5,787.27	1,446.82
207	07.26 07:45:00	0:15:00		6,543.37	1,635.84	0.00	0.00	8,131.51	2,032.88
207	07.26 08:00:00	0:15:00		4,561.18	1,140.29	0.00	0.00	10,113.70	2,528.43
207	07.26 08:15:00	0:15:00		3,135.58	783.89	0.00	0.00	11,539.30	2,884.83
207	07.26 08:30:00	0:15:00		2,233.32	558.33	0.00	0.00	12,441.56	3,110.39
207	07.26 08:45:00	0:15:00		1,655.88	413.97	0.00	0.00	13,019.00	3,254.75
207	07.26 09:00:00	0:15:00		1,340.24	335.06	143.43	35.86	13,191.21	3,297.80
207	07.26 09:15:00	0:15:00		1,344.71	336.18	333.76	83.44	12,996.42	3,249.10
207	07.26 09:30:00	0:15:00		1,362.82	340.71	489.35	122.34	12,822.71	3,205.68
207	07.26 09:45:00	0:15:00		1,380.93	345.23	585.63	146.41	12,708.32	3,177.08
207	07.26 10:00:00	0:15:00		1,395.33	348.83	627.07	156.77	12,652.48	3,163.12
207	07.26 10:15:00	0:15:00		1,407.49	351.87	674.21	168.55	12,593.18	3,148.29
207	07.26 10:30:00	0:15:00		1,419.89	354.97	720.87	180.22	12,534.12	3,133.53
207	07.26 10:45:00	0:15:00		1,429.82	357.46	776.70	194.17	12,468.36	3,117.09
207	07.26 11:00:00	0:15:00		1,425.60	356.40	827.32	206.83	12,421.96	3,105.49
207	07.26 11:15:00	0:15:00		1,414.68	353.67	890.35	222.59	12,369.85	3,092.46
207	07.26 11:30:00	0:15:00		1,399.55	349.89	940.48	235.12	12,334.86	3,083.71
207	07.26 11:45:00	0:15:00		1,387.14	346.78	1,002.26	250.57	12,285.48	3,071.37
207	07.26 12:00:00	0:15:00		1,370.51	342.63	1,036.01	259.00	12,268.35	3,067.09
207	07.26 12:15:00	0:15:00		1,356.62	339.15	1,091.10	272.78	12,227.16	3,056.79
207	07.26 12:30:00	0:15:00		1,340.24	335.06	1,110.95	277.74	12,223.69	3,055.92
207	07.26 12:45:00	0:15:00		1,328.08	332.02	1,162.57	290.64	12,184.23	3,046.06
207	07.26 13:00:00	0:15:00		1,307.98	327.00	1,167.03	291.76	12,199.87	3,049.97
207	07.26 13:15:00	0:15:00		1,300.78	325.20	1,211.45	302.86	12,162.64	3,040.66
207	07.26 13:30:00	0:15:00		1,319.15	329.79	1,201.28	300.32	12,154.46	3,038.61
207	07.26 13:45:00	0:15:00		1,367.29	341.82	1,192.84	298.21	12,114.75	3,028.69
207	07.26 14:00:00	0:15:00		1,434.78	358.70	1,129.81	282.45	12,110.29	3,027.57
207	07.26 14:15:00	0:15:00		1,627.84	406.96	1,098.79	274.70	11,948.25	2,987.06
207	07.26 14:30:00	0:15:00		1,855.89	463.97	1,027.57	256.89	11,791.42	2,947.85



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr	
207	07.26 14:45:00	0:15:00		2,088.40	522.10	984.89	246.22	11,601.59	2,900.40
207	07.26 15:00:00	0:15:00		2,324.39	581.10	913.68	228.42	11,436.82	2,859.20
207	07.26 15:15:00	0:15:00		2,550.20	637.55	864.54	216.14	11,260.14	2,815.03
207	07.26 15:30:00	0:15:00		2,777.25	694.31	798.29	199.57	11,099.34	2,774.83
207	07.26 15:45:00	0:15:00		3,009.52	752.38	750.15	187.54	10,915.21	2,728.80
207	07.26 16:00:00	0:15:00		3,242.03	810.51	680.91	170.23	10,751.93	2,687.98
207	07.26 16:15:00	0:15:00		3,484.97	871.24	600.02	150.00	10,589.89	2,647.47
207	07.26 16:30:00	0:15:00		3,731.13	932.78	462.79	115.70	10,480.96	2,620.24
207	07.26 16:45:00	0:15:00		3,991.19	997.80	274.70	68.67	10,408.99	2,602.25
207	07.26 17:00:00	0:15:00		4,396.66	1,099.16	29.28	7.32	10,248.94	2,562.24
207	07.26 17:15:00	0:15:00		4,924.71	1,231.18	0.00	0.00	9,750.17	2,437.54
207	07.26 17:30:00	0:15:00		5,607.11	1,401.78	0.00	0.00	9,067.76	2,266.94
207	07.26 17:45:00	0:15:00		6,452.80	1,613.20	0.00	0.00	8,222.08	2,055.52
207	07.26 18:00:00	0:15:00		7,456.55	1,864.14	0.00	0.00	7,218.33	1,804.58
207	07.26 18:15:00	0:15:00		8,804.48	2,201.12	0.00	0.00	5,870.40	1,467.60
207	07.26 18:30:00	0:15:00		10,584.43	2,646.11	0.00	0.00	4,090.44	1,022.61
207	07.26 18:45:00	0:15:00		12,516.75	3,129.19	0.00	0.00	2,158.13	539.53
207	07.26 19:00:00	0:15:00		14,226.73	3,556.68	0.00	0.00	448.15	112.04
207	07.26 19:15:00	0:12:36		14,674.88	3,081.72	0.00	0.00	0.00	0.00
207	07.26 19:25:12	0:05:24		14,674.88	1,320.74	0.00	0.00	0.00	0.00
214	08.02 07:12:36	0:01:12		12,695.66	253.91	0.00	0.00	1,979.22	39.58
214	08.02 07:15:00	0:09:00		12,450.74	1,867.61	0.00	0.00	2,224.14	333.62
214	08.02 07:30:00	0:15:00		9,787.39	2,446.85	0.00	0.00	4,887.49	1,221.87
214	08.02 07:45:00	0:15:00		7,238.43	1,809.61	0.00	0.00	7,436.45	1,859.11
214	08.02 08:00:00	0:15:00		5,063.18	1,265.79	0.00	0.00	9,611.70	2,402.93
214	08.02 08:15:00	0:15:00		3,461.64	865.41	0.00	0.00	11,213.24	2,803.31
214	08.02 08:30:00	0:15:00		2,453.67	613.42	0.00	0.00	12,221.21	3,055.30
214	08.02 08:45:00	0:15:00		1,806.51	451.63	111.17	27.79	12,757.20	3,189.30
214	08.02 09:00:00	0:15:00		1,404.76	351.19	305.96	76.49	12,964.16	3,241.04
214	08.02 09:15:00	0:15:00		1,362.08	340.52	489.59	122.40	12,823.21	3,205.80
214	08.02 09:30:00	0:15:00		1,380.19	345.05	579.42	144.86	12,715.27	3,178.82
214	08.02 09:45:00	0:15:00		1,398.80	349.70	652.63	163.16	12,623.45	3,155.86
214	08.02 10:00:00	0:15:00		1,411.46	352.86	703.50	175.87	12,559.93	3,139.98
214	08.02 10:15:00	0:15:00		1,425.10	356.28	749.15	187.29	12,500.62	3,125.16
214	08.02 10:30:00	0:15:00		1,435.78	358.94	802.51	200.63	12,436.60	3,109.15
214	08.02 10:45:00	0:15:00		1,448.18	362.05	862.06	215.52	12,364.64	3,091.16
214	08.02 11:00:00	0:15:00		1,444.71	361.18	912.68	228.17	12,317.49	3,079.37
214	08.02 11:15:00	0:15:00		1,431.56	357.89	979.43	244.86	12,263.89	3,065.97
214	08.02 11:30:00	0:15:00		1,418.16	354.54	1,031.79	257.95	12,224.93	3,056.23
214	08.02 11:45:00	0:15:00		1,406.25	351.56	1,096.06	274.02	12,172.57	3,043.14
214	08.02 12:00:00	0:15:00		1,390.12	347.53	1,131.80	282.95	12,152.97	3,038.24
214	08.02 12:15:00	0:15:00		1,375.23	343.81	1,194.33	298.58	12,105.32	3,026.33
214	08.02 12:30:00	0:15:00		1,358.85	339.71	1,219.64	304.91	12,096.39	3,024.10
214	08.02 12:45:00	0:15:00		1,343.96	335.99	1,269.52	317.38	12,061.40	3,015.35
214	08.02 13:00:00	0:15:00		1,325.60	331.40	1,284.41	321.10	12,064.87	3,016.22
214	08.02 13:15:00	0:15:00		1,318.65	329.66	1,331.80	332.95	12,024.43	3,006.11
214	08.02 13:30:00	0:15:00		1,340.74	335.18	1,322.62	330.66	12,011.52	3,002.88
214	08.02 13:45:00	0:15:00		1,392.85	348.21	1,310.71	327.68	11,971.32	2,992.83
214	08.02 14:00:00	0:15:00		1,463.57	365.89	1,242.22	310.56	11,969.09	2,992.27
214	08.02 14:15:00	0:15:00		1,671.02	417.75	1,205.25	301.31	11,798.61	2,949.65
214	08.02 14:30:00	0:15:00		1,904.52	476.13	1,131.80	282.95	11,638.56	2,909.64
214	08.02 14:45:00	0:15:00		2,146.96	536.74	1,087.38	271.84	11,440.54	2,860.13
214	08.02 15:00:00	0:15:00		2,390.89	597.72	1,006.98	251.74	11,277.01	2,819.25
214	08.02 15:15:00	0:15:00		2,619.68	654.92	959.58	239.90	11,095.61	2,773.90
214	08.02 15:30:00	0:15:00		2,856.91	714.23	893.08	223.27	10,924.89	2,731.22
214	08.02 15:45:00	0:15:00		3,107.04	776.76	843.20	210.80	10,724.64	2,681.16
214	08.02 16:00:00	0:15:00		3,350.72	837.68	772.73	193.18	10,551.43	2,637.86
214	08.02 16:15:00	0:15:00		3,617.48	904.37	706.47	176.62	10,350.93	2,587.73



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
214	08.02 16:30:00	0:15:00	3,870.34	967.59	606.97	151.74	10,197.57	2,549.39
214	08.02 16:45:00	0:15:00	4,176.55	1,044.14	476.94	119.23	10,021.39	2,505.35
214	08.02 17:00:00	0:15:00	4,643.56	1,160.89	240.95	60.24	9,790.37	2,447.59
214	08.02 17:15:00	0:15:00	5,188.74	1,297.19	0.25	0.06	9,485.89	2,371.47
214	08.02 17:30:00	0:15:00	5,853.03	1,463.26	0.00	0.00	8,821.85	2,205.46
214	08.02 17:45:00	0:15:00	6,740.90	1,685.22	0.00	0.00	7,933.98	1,983.50
214	08.02 18:00:00	0:15:00	7,862.52	1,965.63	0.00	0.00	6,812.36	1,703.09
214	08.02 18:15:00	0:15:00	9,358.34	2,339.59	0.00	0.00	5,316.54	1,329.13
214	08.02 18:30:00	0:15:00	11,343.02	2,835.75	0.00	0.00	3,331.86	832.97
214	08.02 18:45:00	0:15:00	13,155.23	3,288.81	0.00	0.00	1,519.65	379.91
214	08.02 19:00:00	0:15:00	14,673.64	3,668.41	0.00	0.00	1.24	0.31
214	08.02 19:15:00	0:09:00	14,674.88	2,201.23	0.00	0.00	0.00	0.00
214	08.02 19:18:36	0:01:48	14,674.88	440.25	0.00	0.00	0.00	0.00
221	08.09 07:19:12	0:05:24	12,959.44	1,166.35	0.00	0.00	1,715.44	154.39
221	08.09 07:30:00	0:12:36	10,998.09	2,309.60	0.00	0.00	3,676.78	772.13
221	08.09 07:45:00	0:15:00	8,051.85	2,012.96	0.00	0.00	6,623.03	1,655.76
221	08.09 08:00:00	0:15:00	5,689.50	1,422.38	0.00	0.00	8,985.38	2,246.35
221	08.09 08:15:00	0:15:00	3,888.70	972.18	0.00	0.00	10,786.18	2,696.54
221	08.09 08:30:00	0:15:00	2,737.05	684.26	93.55	23.39	11,844.27	2,961.07
221	08.09 08:45:00	0:15:00	1,998.82	499.71	305.22	76.31	12,370.84	3,092.71
221	08.09 09:00:00	0:15:00	1,531.56	382.89	490.34	122.58	12,652.98	3,163.25
221	08.09 09:15:00	0:15:00	1,383.66	345.92	579.17	144.79	12,712.04	3,178.01
221	08.09 09:30:00	0:15:00	1,401.53	350.38	655.60	163.90	12,617.74	3,154.44
221	08.09 09:45:00	0:15:00	1,418.40	354.60	732.78	183.19	12,523.70	3,130.92
221	08.09 10:00:00	0:15:00	1,433.79	358.45	792.33	198.08	12,448.76	3,112.19
221	08.09 10:15:00	0:15:00	1,445.95	361.49	838.49	209.62	12,390.44	3,097.61
221	08.09 10:30:00	0:15:00	1,456.87	364.22	897.05	224.26	12,320.96	3,080.24
221	08.09 10:45:00	0:15:00	1,469.03	367.26	960.82	240.21	12,245.03	3,061.26
221	08.09 11:00:00	0:15:00	1,468.03	367.01	1,010.70	252.68	12,196.14	3,049.04
221	08.09 11:15:00	0:15:00	1,454.63	363.66	1,077.45	269.36	12,142.79	3,035.70
221	08.09 11:30:00	0:15:00	1,439.50	359.87	1,133.04	283.26	12,102.34	3,025.59
221	08.09 11:45:00	0:15:00	1,426.59	356.65	1,199.54	299.89	12,048.74	3,012.19
221	08.09 12:00:00	0:15:00	1,410.71	352.68	1,240.48	310.12	12,023.68	3,005.92
221	08.09 12:15:00	0:15:00	1,396.07	349.02	1,301.53	325.38	11,977.28	2,994.32
221	08.09 12:30:00	0:15:00	1,379.20	344.80	1,332.05	333.01	11,963.63	2,990.91
221	08.09 12:45:00	0:15:00	1,364.56	341.14	1,384.66	346.16	11,925.66	2,981.42
221	08.09 13:00:00	0:15:00	1,345.45	336.36	1,405.75	351.44	11,923.68	2,980.92
221	08.09 13:15:00	0:15:00	1,339.99	335.00	1,455.63	363.91	11,879.26	2,969.82
221	08.09 13:30:00	0:15:00	1,365.80	341.45	1,451.41	362.85	11,857.67	2,964.42
221	08.09 13:45:00	0:15:00	1,421.88	355.47	1,430.56	357.64	11,822.44	2,955.61
221	08.09 14:00:00	0:15:00	1,503.77	375.94	1,363.56	340.89	11,807.55	2,951.89
221	08.09 14:15:00	0:15:00	1,732.06	433.02	1,320.64	330.16	11,622.18	2,905.55
221	08.09 14:30:00	0:15:00	1,971.77	492.94	1,248.18	312.04	11,454.93	2,863.73
221	08.09 14:45:00	0:15:00	2,227.61	556.90	1,197.80	299.45	11,249.47	2,812.37
221	08.09 15:00:00	0:15:00	2,473.27	618.32	1,116.91	279.23	11,084.70	2,771.17
221	08.09 15:15:00	0:15:00	2,710.50	677.63	1,066.04	266.51	10,898.34	2,724.59
221	08.09 15:30:00	0:15:00	2,960.14	740.03	1,001.52	250.38	10,713.22	2,678.31
221	08.09 15:45:00	0:15:00	3,223.17	805.79	951.39	237.85	10,500.31	2,625.08
221	08.09 16:00:00	0:15:00	3,488.94	872.23	879.43	219.86	10,306.51	2,576.63
221	08.09 16:15:00	0:15:00	3,777.04	944.26	816.15	204.04	10,081.69	2,520.42
221	08.09 16:30:00	0:15:00	4,057.94	1,014.48	735.75	183.94	9,881.19	2,470.30
221	08.09 16:45:00	0:15:00	4,439.59	1,109.90	631.53	157.88	9,603.76	2,400.94
221	08.09 17:00:00	0:15:00	4,940.10	1,235.02	485.37	121.34	9,249.41	2,312.35
221	08.09 17:15:00	0:15:00	5,536.39	1,384.10	227.80	56.95	8,910.69	2,227.67
221	08.09 17:30:00	0:15:00	6,233.19	1,558.30	0.00	0.00	8,441.69	2,110.42
221	08.09 17:45:00	0:15:00	7,154.80	1,788.70	0.00	0.00	7,520.07	1,880.02
221	08.09 18:00:00	0:15:00	8,430.77	2,107.69	0.00	0.00	6,244.11	1,561.03
221	08.09 18:15:00	0:15:00	10,118.17	2,529.54	0.00	0.00	4,556.71	1,139.18



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
221	08.09 18:30:00	0:15:00	12,396.40	3,099.10	0.00	0.00	2,278.48	569.62
221	08.09 18:45:00	0:20:24	14,078.33	4,786.63	0.00	0.00	596.54	202.83
221	08.09 19:10:48	0:12:36	14,674.88	3,081.72	0.00	0.00	0.00	0.00
228	08.16 07:25:12	0:02:24	13,203.37	528.14	0.00	0.00	1,471.51	58.86
228	08.16 07:30:00	0:10:12	12,493.42	2,123.88	0.00	0.00	2,181.45	370.85
228	08.16 07:45:00	0:15:00	9,069.75	2,267.44	0.00	0.00	5,605.13	1,401.28
228	08.16 08:00:00	0:15:00	6,377.86	1,594.46	0.00	0.00	8,297.02	2,074.26
228	08.16 08:15:00	0:15:00	4,441.57	1,110.39	92.81	23.20	10,140.50	2,535.13
228	08.16 08:30:00	0:15:00	3,132.85	783.21	317.38	79.35	11,224.65	2,806.16
228	08.16 08:45:00	0:15:00	2,244.73	561.18	486.86	121.72	11,943.28	2,985.82
228	08.16 09:00:00	0:15:00	1,694.10	423.52	573.96	143.49	12,406.82	3,101.71
228	08.16 09:15:00	0:15:00	1,414.93	353.73	661.31	165.33	12,598.64	3,149.66
228	08.16 09:30:00	0:15:00	1,428.08	357.02	743.45	185.86	12,503.35	3,125.84
228	08.16 09:45:00	0:15:00	1,444.46	361.12	823.10	205.78	12,407.32	3,101.83
228	08.16 10:00:00	0:15:00	1,458.85	364.71	888.61	222.15	12,327.41	3,081.85
228	08.16 10:15:00	0:15:00	1,470.52	367.63	941.96	235.49	12,262.40	3,065.60
228	08.16 10:30:00	0:15:00	1,483.42	370.86	1,000.03	250.01	12,191.43	3,047.86
228	08.16 10:45:00	0:15:00	1,491.61	372.90	1,066.04	266.51	12,117.23	3,029.31
228	08.16 11:00:00	0:15:00	1,493.10	373.27	1,112.44	278.11	12,069.34	3,017.34
228	08.16 11:15:00	0:15:00	1,481.43	370.36	1,179.19	294.80	12,014.25	3,003.56
228	08.16 11:30:00	0:15:00	1,466.55	366.64	1,238.50	309.63	11,969.83	2,992.46
228	08.16 11:45:00	0:15:00	1,449.92	362.48	1,309.72	327.43	11,915.24	2,978.81
228	08.16 12:00:00	0:15:00	1,434.29	358.57	1,358.60	339.65	11,881.99	2,970.50
228	08.16 12:15:00	0:15:00	1,418.40	354.60	1,424.11	356.03	11,832.36	2,958.09
228	08.16 12:30:00	0:15:00	1,401.28	350.32	1,459.10	364.78	11,814.49	2,953.62
228	08.16 12:45:00	0:15:00	1,385.65	346.41	1,518.66	379.66	11,770.57	2,942.64
228	08.16 13:00:00	0:15:00	1,367.53	341.88	1,544.46	386.12	11,762.88	2,940.72
228	08.16 13:15:00	0:15:00	1,364.81	341.20	1,598.56	399.64	11,711.51	2,927.88
228	08.16 13:30:00	0:15:00	1,395.08	348.77	1,594.34	398.59	11,685.46	2,921.37
228	08.16 13:45:00	0:15:00	1,455.38	363.85	1,563.07	390.77	11,656.43	2,914.11
228	08.16 14:00:00	0:15:00	1,570.52	392.63	1,491.61	372.90	11,612.75	2,903.19
228	08.16 14:15:00	0:15:00	1,805.51	451.38	1,446.94	361.74	11,422.42	2,855.61
228	08.16 14:30:00	0:15:00	2,056.39	514.10	1,367.53	341.88	11,250.95	2,812.74
228	08.16 14:45:00	0:15:00	2,326.12	581.53	1,312.69	328.17	11,036.06	2,759.02
228	08.16 15:00:00	0:15:00	2,575.76	643.94	1,239.49	309.87	10,859.63	2,714.91
228	08.16 15:15:00	0:15:00	2,824.65	706.16	1,186.64	296.66	10,663.59	2,665.90
228	08.16 15:30:00	0:15:00	3,084.71	771.18	1,125.34	281.34	10,464.83	2,616.21
228	08.16 15:45:00	0:15:00	3,365.11	841.28	1,069.26	267.32	10,240.50	2,560.13
228	08.16 16:00:00	0:15:00	3,650.23	912.56	1,005.74	251.43	10,018.91	2,504.73
228	08.16 16:15:00	0:15:00	3,958.68	989.67	972.24	243.06	9,743.96	2,435.99
228	08.16 16:30:00	0:15:00	4,287.97	1,071.99	907.47	226.87	9,479.44	2,369.86
228	08.16 16:45:00	0:15:00	4,762.18	1,190.54	787.62	196.90	9,125.09	2,281.27
228	08.16 17:00:00	0:15:00	5,309.34	1,327.34	657.59	164.40	8,707.95	2,176.99
228	08.16 17:15:00	0:15:00	5,967.42	1,491.86	531.53	132.88	8,175.93	2,043.98
228	08.16 17:30:00	0:15:00	6,746.85	1,686.71	207.45	51.86	7,720.58	1,930.14
228	08.16 17:45:00	0:15:00	7,735.22	1,933.80	0.00	0.00	6,939.66	1,734.92
228	08.16 18:00:00	0:15:00	9,159.08	2,289.77	0.00	0.00	5,515.80	1,378.95
228	08.16 18:15:00	0:15:00	11,135.32	2,783.83	0.00	0.00	3,539.56	884.89
228	08.16 18:30:00	0:15:00	13,142.57	3,285.64	0.00	0.00	1,532.30	383.08
228	08.16 18:45:00	0:16:12	14,674.88	3,962.22	0.00	0.00	0.00	0.00
228	08.16 19:02:23	0:08:24	14,674.88	2,054.48	0.00	0.00	0.00	0.00
235	08.23 07:31:48	0:06:36	13,384.02	1,472.24	0.00	0.00	1,290.86	141.99
235	08.23 07:45:00	0:13:48	10,367.06	2,384.42	0.00	0.00	4,307.82	990.80
235	08.23 08:00:00	0:15:00	7,258.53	1,814.63	96.28	24.07	7,320.07	1,830.02
235	08.23 08:15:00	0:15:00	5,200.90	1,300.23	349.89	87.47	9,124.09	2,281.02
235	08.23 08:30:00	0:15:00	3,644.77	911.19	496.04	124.01	10,534.06	2,633.52
235	08.23 08:45:00	0:15:00	2,559.13	639.78	577.44	144.36	11,538.31	2,884.58
235	08.23 09:00:00	0:15:00	1,875.74	468.94	661.06	165.27	12,138.08	3,034.52



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
235	08.23 09:15:00	0:15:00		1,482.92	370.73	752.63	188.16	12,439.33
235	08.23 09:30:00	0:15:00		1,461.09	365.27	839.23	209.81	12,374.56
235	08.23 09:45:00	0:15:00		1,475.97	368.99	923.85	230.96	12,275.05
235	08.23 10:00:00	0:15:00		1,489.13	372.28	995.32	248.83	12,190.44
235	08.23 10:15:00	0:15:00		1,501.78	375.45	1,055.61	263.90	12,117.48
235	08.23 10:30:00	0:15:00		1,508.98	377.24	1,114.92	278.73	12,050.98
235	08.23 10:45:00	0:15:00		1,519.40	379.85	1,180.43	295.11	11,975.05
235	08.23 11:00:00	0:15:00		1,527.84	381.96	1,225.84	306.46	11,921.20
235	08.23 11:15:00	0:15:00		1,510.47	377.62	1,295.08	323.77	11,869.34
235	08.23 11:30:00	0:15:00		1,491.61	372.90	1,359.84	339.96	11,823.43
235	08.23 11:45:00	0:15:00		1,475.48	368.87	1,440.24	360.06	11,759.16
235	08.23 12:00:00	0:15:00		1,458.60	364.65	1,492.35	373.09	11,723.92
235	08.23 12:15:00	0:15:00		1,442.23	360.56	1,563.32	390.83	11,669.33
235	08.23 12:30:00	0:15:00		1,424.61	356.15	1,605.01	401.25	11,645.26
235	08.23 12:45:00	0:15:00		1,408.73	352.18	1,670.03	417.51	11,596.13
235	08.23 13:00:00	0:15:00		1,390.61	347.65	1,704.02	426.01	11,580.24
235	08.23 13:15:00	0:15:00		1,391.36	347.84	1,760.85	440.21	11,522.67
235	08.23 13:30:00	0:15:00		1,430.32	357.58	1,752.16	438.04	11,492.40
235	08.23 13:45:00	0:15:00		1,496.82	374.21	1,709.48	427.37	11,468.58
235	08.23 14:00:00	0:15:00		1,653.65	413.41	1,634.29	408.57	11,386.94
235	08.23 14:15:00	0:15:00		1,904.52	476.13	1,582.93	395.73	11,187.43
235	08.23 14:30:00	0:15:00		2,166.81	541.70	1,523.12	380.78	10,984.94
235	08.23 14:45:00	0:15:00		2,440.77	610.19	1,458.60	364.65	10,775.51
235	08.23 15:00:00	0:15:00		2,698.34	674.59	1,375.48	343.87	10,601.06
235	08.23 15:15:00	0:15:00		2,967.33	741.83	1,323.86	330.97	10,383.68
235	08.23 15:30:00	0:15:00		3,241.29	810.32	1,260.83	315.21	10,172.76
235	08.23 15:45:00	0:15:00		3,544.27	886.07	1,207.48	301.87	9,923.12
235	08.23 16:00:00	0:15:00		3,855.95	963.99	1,172.00	293.00	9,646.94
235	08.23 16:15:00	0:15:00		4,192.18	1,048.05	1,218.90	304.72	9,263.80
235	08.23 16:30:00	0:15:00		4,593.19	1,148.30	1,183.91	295.98	8,897.78
235	08.23 16:45:00	0:15:00		5,131.91	1,282.98	1,059.34	264.83	8,483.63
235	08.23 17:00:00	0:15:00		5,747.32	1,436.83	848.91	212.23	8,078.65
235	08.23 17:15:00	0:15:00		6,501.93	1,625.48	729.30	182.33	7,443.65
235	08.23 17:30:00	0:15:00		7,387.81	1,846.95	593.07	148.27	6,694.00
235	08.23 17:45:00	0:15:00		8,552.86	2,138.22	183.63	45.91	5,938.39
235	08.23 18:00:00	0:15:00		10,163.08	2,540.77	0.00	0.00	4,511.80
235	08.23 18:15:00	0:15:00		12,305.08	3,076.27	0.00	0.00	2,369.80
235	08.23 18:30:00	0:15:00		14,089.50	3,522.38	0.00	0.00	585.38
235	08.23 18:45:00	0:11:24		14,674.88	2,788.23	0.00	0.00	0.00
235	08.23 18:52:48	0:03:36		14,674.88	880.49	0.00	0.00	0.00
242	08.30 07:37:48	0:03:36		13,319.25	799.16	11.91	0.72	1,343.71
242	08.30 07:45:00	0:11:24		12,014.00	2,282.66	97.03	18.44	2,563.85
242	08.30 08:00:00	0:15:00		8,459.31	2,114.83	342.69	85.67	5,872.88
242	08.30 08:15:00	0:15:00		6,057.75	1,514.44	494.56	123.64	8,122.57
242	08.30 08:30:00	0:15:00		4,266.38	1,066.60	581.41	145.35	9,827.09
242	08.30 08:45:00	0:15:00		2,949.47	737.37	666.77	166.69	11,058.64
242	08.30 09:00:00	0:15:00		2,090.63	522.66	752.63	188.16	11,831.62
242	08.30 09:15:00	0:15:00		1,603.03	400.76	847.67	211.92	12,224.18
242	08.30 09:30:00	0:15:00		1,502.77	375.69	941.96	235.49	12,230.14
242	08.30 09:45:00	0:15:00		1,512.20	378.05	1,034.27	258.57	12,128.40
242	08.30 10:00:00	0:15:00		1,522.38	380.59	1,110.95	277.74	12,041.55
242	08.30 10:15:00	0:15:00		1,538.26	384.57	1,185.64	296.41	11,950.98
242	08.30 10:30:00	0:15:00		1,545.70	386.43	1,243.71	310.93	11,885.46
242	08.30 10:45:00	0:15:00		1,552.90	388.23	1,307.73	326.93	11,814.25
242	08.30 11:00:00	0:15:00		1,556.87	389.22	1,350.41	337.60	11,767.60
242	08.30 11:15:00	0:15:00		1,539.75	384.94	1,422.38	355.59	11,712.75
242	08.30 11:30:00	0:15:00		1,518.90	379.73	1,493.59	373.40	11,662.38
242	08.30 11:45:00	0:15:00		1,501.04	375.26	1,582.93	395.73	11,590.91



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
242	08.30 12:00:00	0:15:00	1,483.42	370.86	1,642.23	410.56	11,549.23	2,887.31
242	08.30 12:15:00	0:15:00	1,466.79	366.70	1,719.90	429.98	11,488.18	2,872.05
242	08.30 12:30:00	0:15:00	1,449.42	362.36	1,766.55	441.64	11,458.90	2,864.73
242	08.30 12:45:00	0:15:00	1,432.80	358.20	1,839.26	459.82	11,402.82	2,850.71
242	08.30 13:00:00	0:15:00	1,416.17	354.04	1,880.45	470.11	11,378.25	2,844.56
242	08.30 13:15:00	0:15:00	1,421.63	355.41	1,946.71	486.68	11,306.54	2,826.64
242	08.30 13:30:00	0:15:00	1,469.03	367.26	1,917.92	479.48	11,287.93	2,821.98
242	08.30 13:45:00	0:15:00	1,542.23	385.56	1,870.28	467.57	11,262.37	2,815.59
242	08.30 14:00:00	0:15:00	1,746.21	436.55	1,789.88	447.47	11,138.79	2,784.70
242	08.30 14:15:00	0:15:00	2,015.44	503.86	1,739.75	434.94	10,919.68	2,729.92
242	08.30 14:30:00	0:15:00	2,299.08	574.77	1,722.14	430.53	10,653.67	2,663.42
242	08.30 14:45:00	0:15:00	2,576.50	644.13	1,686.40	421.60	10,411.97	2,602.99
242	08.30 15:00:00	0:15:00	2,844.01	711.00	1,605.26	401.32	10,225.61	2,556.40
242	08.30 15:15:00	0:15:00	3,138.31	784.58	1,541.24	385.31	9,995.33	2,498.83
242	08.30 15:30:00	0:15:00	3,436.33	859.08	1,412.70	353.17	9,825.85	2,456.46
242	08.30 15:45:00	0:15:00	3,760.41	940.10	1,365.30	341.33	9,549.17	2,387.29
242	08.30 16:00:00	0:15:00	4,094.41	1,023.60	1,429.57	357.39	9,150.89	2,287.72
242	08.30 16:15:00	0:15:00	4,477.30	1,119.33	1,559.10	389.78	8,638.47	2,159.62
242	08.30 16:30:00	0:15:00	4,953.50	1,238.37	1,579.95	394.99	8,141.43	2,035.36
242	08.30 16:45:00	0:15:00	5,552.27	1,388.07	1,464.56	366.14	7,658.04	1,914.51
242	08.30 17:00:00	0:15:00	6,249.07	1,562.27	1,159.59	289.90	7,266.22	1,816.56
242	08.30 17:15:00	0:15:00	7,109.39	1,777.35	1,006.73	251.68	6,558.76	1,639.69
242	08.30 17:30:00	0:15:00	8,155.83	2,038.96	874.47	218.62	5,644.58	1,411.15
242	08.30 17:45:00	0:15:00	9,525.59	2,381.40	633.52	158.38	4,515.77	1,128.94
242	08.30 18:00:00	0:15:00	11,519.95	2,879.99	103.23	25.81	3,051.70	762.93
242	08.30 18:15:00	0:15:00	13,187.49	3,296.87	0.00	0.00	1,487.39	371.85
242	08.30 18:30:00	0:13:48	14,406.63	3,313.53	0.00	0.00	268.25	61.70
242	08.30 18:42:36	0:06:36	14,665.70	1,613.23	0.00	0.00	9.18	1.01
249	09.06 07:44:24	0:07:48	13,675.10	1,777.76	212.91	27.68	786.87	102.29
249	09.06 08:00:00	0:15:00	9,939.25	2,484.81	418.13	104.53	4,317.50	1,079.37
249	09.06 08:15:00	0:15:00	7,076.64	1,769.16	547.91	136.98	7,050.33	1,762.58
249	09.06 08:30:00	0:15:00	5,002.63	1,250.66	661.31	165.33	9,010.94	2,252.73
249	09.06 08:45:00	0:15:00	3,434.84	858.71	757.84	189.46	10,482.20	2,620.55
249	09.06 09:00:00	0:15:00	2,375.51	593.88	847.92	211.98	11,451.46	2,862.86
249	09.06 09:15:00	0:15:00	1,792.11	448.03	949.41	237.35	11,933.36	2,983.34
249	09.06 09:30:00	0:15:00	1,544.96	386.24	1,050.65	262.66	12,079.27	3,019.82
249	09.06 09:45:00	0:15:00	1,553.89	388.47	1,151.65	287.91	11,969.34	2,992.33
249	09.06 10:00:00	0:15:00	1,562.08	390.52	1,234.28	308.57	11,878.52	2,969.63
249	09.06 10:15:00	0:15:00	1,573.74	393.44	1,314.43	328.61	11,786.70	2,946.68
249	09.06 10:30:00	0:15:00	1,581.19	395.30	1,376.72	344.18	11,716.97	2,929.24
249	09.06 10:45:00	0:15:00	1,591.61	397.90	1,444.71	361.18	11,638.56	2,909.64
249	09.06 11:00:00	0:15:00	1,595.09	398.77	1,488.13	372.03	11,591.66	2,897.92
249	09.06 11:15:00	0:15:00	1,577.22	394.30	1,565.56	391.39	11,532.10	2,883.03
249	09.06 11:30:00	0:15:00	1,555.38	388.85	1,644.96	411.24	11,474.53	2,868.63
249	09.06 11:45:00	0:15:00	1,538.26	384.57	1,742.48	435.62	11,394.13	2,848.53
249	09.06 12:00:00	0:15:00	1,520.14	380.04	1,807.25	451.81	11,347.48	2,836.87
249	09.06 12:15:00	0:15:00	1,502.77	375.69	1,891.87	472.97	11,280.24	2,820.06
249	09.06 12:30:00	0:15:00	1,484.66	371.17	1,948.69	487.17	11,241.52	2,810.38
249	09.06 12:45:00	0:15:00	1,467.79	366.95	2,027.85	506.96	11,179.24	2,794.81
249	09.06 13:00:00	0:15:00	1,450.17	362.54	2,078.47	519.62	11,146.24	2,786.56
249	09.06 13:15:00	0:15:00	1,468.03	367.01	2,144.48	536.12	11,062.36	2,765.59
249	09.06 13:30:00	0:15:00	1,519.65	379.91	2,102.30	525.57	11,052.93	2,763.23
249	09.06 13:45:00	0:15:00	1,607.99	402.00	2,047.95	511.99	11,018.94	2,754.73
249	09.06 14:00:00	0:15:00	1,858.12	464.53	1,961.35	490.34	10,855.41	2,713.85
249	09.06 14:15:00	0:15:00	2,141.75	535.44	1,932.81	483.20	10,600.31	2,650.08
249	09.06 14:30:00	0:15:00	2,439.03	609.76	1,942.99	485.75	10,292.86	2,573.22
249	09.06 14:45:00	0:15:00	2,730.11	682.53	1,956.63	489.16	9,988.14	2,497.03
249	09.06 15:00:00	0:15:00	3,024.16	756.04	1,924.87	481.22	9,725.85	2,431.46



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr	
249	09.06 15:15:00	0:15:00		3,340.79	835.20	1,919.91	479.98	9,414.18	2,353.54
249	09.06 15:30:00	0:15:00		3,660.90	915.23	1,859.61	464.90	9,154.37	2,288.59
249	09.06 15:45:00	0:15:00		4,018.48	1,004.62	1,818.66	454.67	8,837.73	2,209.43
249	09.06 16:00:00	0:15:00		4,379.29	1,094.82	1,905.02	476.26	8,390.57	2,097.64
249	09.06 16:15:00	0:15:00		4,820.74	1,205.19	2,033.06	508.27	7,821.08	1,955.27
249	09.06 16:30:00	0:15:00		5,376.34	1,344.09	2,095.60	523.90	7,202.94	1,800.74
249	09.06 16:45:00	0:15:00		6,033.43	1,508.36	1,856.13	464.03	6,785.31	1,696.33
249	09.06 17:00:00	0:15:00		6,825.76	1,706.44	1,528.58	382.15	6,320.54	1,580.13
249	09.06 17:15:00	0:15:00		7,805.94	1,951.49	1,343.46	335.87	5,525.47	1,381.37
249	09.06 17:30:00	0:15:00		9,035.50	2,258.88	1,217.65	304.41	4,421.72	1,105.43
249	09.06 17:45:00	0:15:00		10,726.62	2,681.66	940.97	235.24	3,007.29	751.82
249	09.06 18:00:00	0:15:00		12,473.57	3,118.39	605.73	151.43	1,595.58	398.90
249	09.06 18:15:00	0:16:12		13,981.31	3,774.95	0.00	0.00	693.57	187.26
249	09.06 18:31:48	0:08:24		14,602.42	2,044.34	0.00	0.00	72.46	10.14
256	09.13 07:50:24	0:04:48		13,536.13	1,082.89	231.27	18.50	907.47	72.60
256	09.13 08:00:00	0:12:36		11,474.53	2,409.65	359.81	75.56	2,840.53	596.51
256	09.13 08:15:00	0:15:00		8,196.03	2,049.01	576.69	144.17	5,902.16	1,475.54
256	09.13 08:30:00	0:15:00		5,813.32	1,453.33	734.02	183.50	8,127.54	2,031.88
256	09.13 08:45:00	0:15:00		4,018.73	1,004.68	852.63	213.16	9,803.52	2,450.88
256	09.13 09:00:00	0:15:00		2,739.29	684.82	947.42	236.86	10,988.17	2,747.04
256	09.13 09:15:00	0:15:00		2,000.80	500.20	1,052.64	263.16	11,621.44	2,905.36
256	09.13 09:30:00	0:15:00		1,610.97	402.74	1,161.33	290.33	11,902.59	2,975.65
256	09.13 09:45:00	0:15:00		1,602.03	400.51	1,272.74	318.19	11,800.10	2,950.03
256	09.13 10:00:00	0:15:00		1,608.48	402.12	1,364.06	341.02	11,702.33	2,925.58
256	09.13 10:15:00	0:15:00		1,617.91	404.48	1,450.66	362.67	11,606.30	2,901.58
256	09.13 10:30:00	0:15:00		1,621.39	405.35	1,519.15	379.79	11,534.34	2,883.58
256	09.13 10:45:00	0:15:00		1,628.09	407.02	1,591.11	397.78	11,455.68	2,863.92
256	09.13 11:00:00	0:15:00		1,629.33	407.33	1,641.49	410.37	11,404.06	2,851.02
256	09.13 11:15:00	0:15:00		1,612.95	403.24	1,738.76	434.69	11,323.17	2,830.79
256	09.13 11:30:00	0:15:00		1,588.39	397.10	1,826.36	456.59	11,260.14	2,815.03
256	09.13 11:45:00	0:15:00		1,571.51	392.88	1,931.57	482.89	11,171.80	2,792.95
256	09.13 12:00:00	0:15:00		1,549.18	387.29	2,001.80	500.45	11,123.90	2,780.98
256	09.13 12:15:00	0:15:00		1,534.29	383.57	2,092.37	523.09	11,048.22	2,762.06
256	09.13 12:30:00	0:15:00		1,512.45	378.11	2,156.39	539.10	11,006.03	2,751.51
256	09.13 12:45:00	0:15:00		1,497.07	374.27	2,241.26	560.31	10,936.55	2,734.14
256	09.13 13:00:00	0:15:00		1,479.95	369.99	2,301.81	575.45	10,893.13	2,723.28
256	09.13 13:15:00	0:15:00		1,510.47	377.62	2,365.08	591.27	10,799.33	2,699.83
256	09.13 13:30:00	0:15:00		1,574.24	393.56	2,304.54	576.13	10,796.10	2,699.03
256	09.13 13:45:00	0:15:00		1,710.97	427.74	2,244.48	561.12	10,719.43	2,679.86
256	09.13 14:00:00	0:15:00		126.00	497.78	2,152.17	538.04	10,531.58	2,632.89
256	09.13 14:15:00	0:15:00		2,295.85	573.96	2,172.52	543.13	10,206.51	2,551.63
256	09.13 14:30:00	0:15:00		2,609.51	652.38	2,219.92	554.98	9,845.45	2,461.36
256	09.13 14:45:00	0:15:00		2,915.97	728.99	2,289.40	572.35	9,469.51	2,367.38
256	09.13 15:00:00	0:15:00		3,227.14	806.79	2,317.69	579.42	9,130.05	2,282.51
256	09.13 15:15:00	0:15:00		3,572.07	893.02	2,374.02	593.50	8,728.80	2,182.20
256	09.13 15:30:00	0:15:00		3,929.15	982.29	2,405.28	601.32	8,340.45	2,085.11
256	09.13 15:45:00	0:15:00		4,310.05	1,077.51	2,545.98	636.50	7,818.84	1,954.71
256	09.13 16:00:00	0:15:00		4,718.75	1,179.69	2,678.74	669.69	7,277.39	1,819.35
256	09.13 16:15:00	0:15:00		5,221.99	1,305.50	2,802.32	700.58	6,650.57	1,662.64
256	09.13 16:30:00	0:15:00		5,841.86	1,460.47	2,619.18	654.80	6,213.83	1,553.46
256	09.13 16:45:00	0:15:00		6,591.01	1,647.75	2,240.27	560.07	5,843.60	1,460.90
256	09.13 17:00:00	0:15:00		7,484.84	1,871.21	1,900.80	475.20	5,289.24	1,322.31
256	09.13 17:15:00	0:15:00		8,609.19	2,152.30	1,769.78	442.45	4,295.91	1,073.98
256	09.13 17:30:00	0:15:00		10,070.27	2,517.57	1,544.71	386.18	3,059.89	764.97
256	09.13 17:45:00	0:15:00		11,841.29	2,960.32	1,283.66	320.92	1,549.92	387.48
256	09.13 18:00:00	0:15:00		13,307.09	3,326.77	870.25	217.56	497.53	124.38
256	09.13 18:15:00	0:10:48		14,041.36	2,527.45	385.87	69.46	247.65	44.58
256	09.13 18:21:00	0:03:00		14,396.21	719.81	181.89	9.10	96.78	4.84



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
263	09.20 07:57:00	0:01:12	13,188.48	263.77	126.31	2.53	1,360.09	27.20
263	09.20 08:00:00	0:09:00	12,572.83	1,885.92	191.57	28.74	1,910.48	286.57
263	09.20 08:15:00	0:15:00	9,384.65	2,346.16	495.05	123.76	4,795.18	1,198.80
263	09.20 08:30:00	0:15:00	6,715.34	1,678.83	749.40	187.35	7,210.14	1,802.54
263	09.20 08:45:00	0:15:00	4,683.76	1,170.94	918.14	229.54	9,072.97	2,268.24
263	09.20 09:00:00	0:15:00	3,164.86	791.22	1,049.16	262.29	10,460.86	2,615.21
263	09.20 09:15:00	0:15:00	2,249.20	562.30	1,161.82	290.46	11,263.86	2,815.96
263	09.20 09:30:00	0:15:00	1,733.05	433.26	1,292.84	323.21	11,648.98	2,912.25
263	09.20 09:45:00	0:15:00	1,655.14	413.78	1,423.86	355.97	11,595.88	2,898.97
263	09.20 10:00:00	0:15:00	1,661.59	415.40	1,515.68	378.92	11,497.61	2,874.40
263	09.20 10:15:00	0:15:00	1,666.55	416.64	1,608.98	402.25	11,399.35	2,849.84
263	09.20 10:30:00	0:15:00	1,666.30	416.58	1,675.73	418.93	11,332.84	2,833.21
263	09.20 10:45:00	0:15:00	1,671.51	417.88	1,748.44	437.11	11,254.92	2,813.73
263	09.20 11:00:00	0:15:00	1,672.01	418.00	1,815.94	453.98	11,186.93	2,796.73
263	09.20 11:15:00	0:15:00	1,654.14	413.54	1,926.11	481.53	11,094.62	2,773.66
263	09.20 11:30:00	0:15:00	1,627.10	406.77	2,023.39	505.85	11,024.40	2,756.10
263	09.20 11:45:00	0:15:00	1,607.24	401.81	2,137.53	534.38	10,930.10	2,732.53
263	09.20 12:00:00	0:15:00	1,586.90	396.72	2,214.46	553.61	10,873.52	2,718.38
263	09.20 12:15:00	0:15:00	1,569.28	392.32	2,311.73	577.93	10,793.87	2,698.47
263	09.20 12:30:00	0:15:00	1,550.91	387.73	2,382.21	595.55	10,741.76	2,685.44
263	09.20 12:45:00	0:15:00	1,535.28	383.82	2,475.76	618.94	10,663.84	2,665.96
263	09.20 13:00:00	0:15:00	1,523.37	380.84	2,551.44	637.86	10,600.07	2,650.02
263	09.20 13:15:00	0:15:00	1,566.05	391.51	2,609.01	652.25	10,499.82	2,624.95
263	09.20 13:30:00	0:15:00	1,635.04	408.76	2,526.38	631.59	10,513.46	2,628.37
263	09.20 13:45:00	0:15:00	1,835.29	458.82	2,467.32	616.83	10,372.27	2,593.07
263	09.20 14:00:00	0:15:00	2,134.31	533.58	2,387.91	596.98	10,152.66	2,538.17
263	09.20 14:15:00	0:15:00	2,465.09	616.27	2,472.53	618.13	9,737.26	2,434.32
263	09.20 14:30:00	0:15:00	2,785.94	696.49	2,566.58	641.64	9,322.36	2,330.59
263	09.20 14:45:00	0:15:00	3,122.43	780.61	2,705.29	676.32	8,847.16	2,211.79
263	09.20 15:00:00	0:15:00	3,467.10	866.78	2,801.32	700.33	8,406.45	2,101.61
263	09.20 15:15:00	0:15:00	3,844.28	961.07	2,946.49	736.62	7,884.11	1,971.03
263	09.20 15:30:00	0:15:00	4,231.14	1,057.79	3,101.58	775.40	7,342.15	1,835.54
263	09.20 15:45:00	0:15:00	4,644.31	1,161.08	3,434.10	858.52	6,596.47	1,649.12
263	09.20 16:00:00	0:15:00	5,096.93	1,274.23	3,616.24	904.06	5,961.72	1,490.43
263	09.20 16:15:00	0:15:00	5,689.00	1,422.25	3,773.07	943.27	5,212.81	1,303.20
263	09.20 16:30:00	0:15:00	6,359.99	1,590.00	3,293.15	823.29	5,021.74	1,255.43
263	09.20 16:45:00	0:15:00	7,200.21	1,800.05	2,816.96	704.24	4,657.71	1,164.43
263	09.20 17:00:00	0:15:00	8,228.04	2,057.01	2,502.31	625.58	3,944.53	986.13
263	09.20 17:15:00	0:15:00	9,532.29	2,383.07	2,277.98	569.50	2,864.60	716.15
263	09.20 17:30:00	0:15:00	11,343.51	2,835.88	1,938.02	484.51	1,393.34	348.34
263	09.20 17:45:00	0:15:00	12,582.01	3,145.50	1,544.71	386.18	548.16	137.04
263	09.20 18:00:00	0:12:36	13,441.34	2,822.68	1,035.02	217.35	198.52	41.69
263	09.20 18:09:36	0:04:48	13,899.92	1,111.99	711.68	56.94	63.28	5.06
270	09.27 08:03:00	0:06:00	12,756.95	1,275.70	152.86	15.29	1,765.07	176.51
270	09.27 08:15:00	0:13:12	10,524.13	2,315.31	341.45	75.12	3,809.29	838.05
270	09.27 08:30:00	0:15:00	7,833.73	1,958.43	690.59	172.65	6,150.56	1,537.64
270	09.27 08:45:00	0:15:00	5,483.29	1,370.82	960.57	240.14	8,231.01	2,057.75
270	09.27 09:00:00	0:15:00	3,745.52	936.38	1,144.20	286.05	9,785.15	2,446.29
270	09.27 09:15:00	0:15:00	2,561.61	640.40	1,331.06	332.76	10,782.21	2,695.55
270	09.27 09:30:00	0:15:00	1,907.75	476.94	1,502.03	375.51	11,265.10	2,816.28
270	09.27 09:45:00	0:15:00	1,713.45	428.36	1,677.22	419.31	11,284.21	2,821.05
270	09.27 10:00:00	0:15:00	1,712.95	428.24	1,804.52	451.13	11,157.40	2,789.35
270	09.27 10:15:00	0:15:00	1,713.20	428.30	1,928.10	482.02	11,033.58	2,758.39
270	09.27 10:30:00	0:15:00	1,714.44	428.61	1,978.72	494.68	10,981.72	2,745.43
270	09.27 10:45:00	0:15:00	1,717.17	429.29	2,052.17	513.04	10,905.53	2,726.38
270	09.27 11:00:00	0:15:00	1,716.18	429.05	2,108.25	527.06	10,850.45	2,712.61
270	09.27 11:15:00	0:15:00	1,699.06	424.76	2,207.26	551.82	10,768.56	2,692.14
270	09.27 11:30:00	0:15:00	1,671.02	417.75	2,289.40	572.35	10,714.46	2,678.62



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
270	09.27 11:45:00	0:15:00		1,648.44	412.11	2,403.55	600.89	10,622.90
270	09.27 12:00:00	0:15:00		1,628.83	407.21	2,477.00	619.25	10,569.05
270	09.27 12:15:00	0:15:00		1,610.97	402.74	2,581.71	645.43	10,482.20
270	09.27 12:30:00	0:15:00		1,590.62	397.65	2,652.19	663.05	10,432.07
270	09.27 12:45:00	0:15:00		1,573.25	393.31	2,756.91	689.23	10,344.72
270	09.27 13:00:00	0:15:00		1,566.55	391.64	2,845.99	711.50	10,262.34
270	09.27 13:15:00	0:15:00		1,622.38	405.60	2,873.53	718.38	10,178.96
270	09.27 13:30:00	0:15:00		1,697.82	424.45	2,781.72	695.43	10,195.34
270	09.27 13:45:00	0:15:00		1,957.38	489.35	2,728.87	682.22	9,988.63
270	09.27 14:00:00	0:15:00		2,270.04	567.51	2,688.17	672.04	9,716.67
270	09.27 14:15:00	0:15:00		2,607.52	651.88	2,847.73	711.93	9,219.63
270	09.27 14:30:00	0:15:00		2,936.56	734.14	3,004.80	751.20	8,733.51
270	09.27 14:45:00	0:15:00		3,288.44	822.11	3,228.88	807.22	8,157.56
270	09.27 15:00:00	0:15:00		3,656.44	914.11	3,405.56	851.39	7,612.88
270	09.27 15:15:00	0:15:00		4,059.18	1,014.79	3,691.43	922.86	6,924.28
270	09.27 15:30:00	0:15:00		4,488.97	1,122.24	3,987.22	996.80	6,198.70
270	09.27 15:45:00	0:15:00		4,945.31	1,236.33	4,413.28	1,103.32	5,316.29
270	09.27 16:00:00	0:15:00		5,479.07	1,369.77	4,718.75	1,179.69	4,477.06
270	09.27 16:15:00	0:15:00		6,120.53	1,530.13	4,514.53	1,128.63	4,039.82
270	09.27 16:30:00	0:15:00		6,914.10	1,728.53	3,934.11	983.53	3,826.66
270	09.27 16:45:00	0:15:00		7,891.05	1,972.76	3,443.78	860.94	3,340.05
270	09.27 17:00:00	0:15:00		9,112.93	2,278.23	3,027.63	756.91	2,534.32
270	09.27 17:15:00	0:15:00		10,705.28	2,676.32	2,701.32	675.33	1,268.28
270	09.27 17:30:00	0:15:00		12,025.42	3,006.36	2,243.49	560.87	405.97
270	09.27 17:45:00	0:13:48		13,057.46	3,003.22	1,483.92	341.30	133.50
270	09.27 17:58:11	0:06:36		13,745.57	1,512.01	899.53	98.95	29.78
277	10.04 08:09:36	0:02:24		12,400.37	496.02	180.90	7.24	2,093.61
277	10.04 08:15:00	0:10:12		11,439.79	1,944.77	253.36	43.07	2,981.73
277	10.04 08:30:00	0:15:00		8,955.10	2,238.78	582.65	145.66	5,137.13
277	10.04 08:45:00	0:15:00		6,376.86	1,594.22	1,044.20	261.05	7,253.81
277	10.04 09:00:00	0:15:00		4,378.79	1,094.70	1,414.19	353.55	8,881.90
277	10.04 09:15:00	0:15:00		2,991.90	747.98	1,610.47	402.62	10,072.51
277	10.04 09:30:00	0:15:00		2,144.73	536.18	1,759.61	439.90	10,770.54
277	10.04 09:45:00	0:15:00		1,779.71	444.93	1,966.81	491.70	10,928.36
277	10.04 10:00:00	0:15:00		1,771.77	442.94	2,125.37	531.34	10,777.74
277	10.04 10:15:00	0:15:00		1,771.02	442.76	2,276.74	569.19	10,627.11
277	10.04 10:30:00	0:15:00		1,765.81	441.45	2,359.13	589.78	10,549.94
277	10.04 10:45:00	0:15:00		1,765.56	441.39	2,412.98	603.24	10,496.34
277	10.04 11:00:00	0:15:00		1,764.07	441.02	2,438.04	609.51	10,472.77
277	10.04 11:15:00	0:15:00		1,746.45	436.61	2,515.96	628.99	10,412.47
277	10.04 11:30:00	0:15:00		1,717.67	429.42	2,590.40	647.60	10,366.81
277	10.04 11:45:00	0:15:00		1,694.59	423.65	2,703.55	675.89	10,276.73
277	10.04 12:00:00	0:15:00		1,672.01	418.00	2,788.67	697.17	10,214.20
277	10.04 12:15:00	0:15:00		1,653.15	413.29	2,897.61	724.40	10,124.12
277	10.04 12:30:00	0:15:00		1,631.07	407.77	2,977.51	744.38	10,066.30
277	10.04 12:45:00	0:15:00		1,615.18	403.80	3,085.45	771.36	9,974.24
277	10.04 13:00:00	0:15:00		1,612.95	403.24	3,191.41	797.85	9,870.52
277	10.04 13:15:00	0:15:00		1,678.71	419.68	3,238.56	809.64	9,757.61
277	10.04 13:30:00	0:15:00		1,789.14	447.28	3,155.93	788.98	9,729.82
277	10.04 13:45:00	0:15:00		2,083.93	520.98	3,112.00	778.00	9,478.94
277	10.04 14:00:00	0:15:00		2,408.76	602.19	3,153.69	788.42	9,112.43
277	10.04 14:15:00	0:15:00		2,744.25	686.06	3,419.95	854.99	8,510.67
277	10.04 14:30:00	0:15:00		3,086.69	771.67	3,638.57	909.64	7,949.62
277	10.04 14:45:00	0:15:00		3,452.21	863.05	3,932.87	983.22	7,289.79
277	10.04 15:00:00	0:15:00		3,837.83	959.46	4,189.45	1,047.36	6,647.59
277	10.04 15:15:00	0:15:00		4,256.45	1,064.11	4,579.54	1,144.89	5,838.88
277	10.04 15:30:00	0:15:00		4,712.30	1,178.08	5,016.53	1,254.13	4,946.05
277	10.04 15:45:00	0:15:00		5,214.55	1,303.64	5,529.94	1,382.49	3,930.39



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
277	10.04 16:00:00	0:15:00		5,788.26	1,447.07	5,660.22	1,415.05	3,226.40
277	10.04 16:15:00	0:15:00		6,505.40	1,626.35	5,150.53	1,287.63	3,018.95
277	10.04 16:30:00	0:15:00		7,422.30	1,855.58	4,519.24	1,129.81	2,733.33
277	10.04 16:45:00	0:15:00		8,620.60	2,155.15	3,864.38	966.10	2,189.89
277	10.04 17:00:00	0:15:00		10,140.75	2,535.19	3,338.56	834.64	1,195.57
277	10.04 17:15:00	0:15:00		11,603.32	2,900.83	2,749.71	687.43	321.85
277	10.04 17:30:00	0:16:12		12,684.99	3,424.95	1,989.89	537.27	0.00
277	10.04 17:47:23	0:08:24		14,056.99	1,967.98	616.64	86.33	1.24
284	10.11 08:16:11	0:07:12		12,039.32	1,444.72	324.08	38.89	2,311.48
284	10.11 08:30:00	0:14:24		9,887.39	2,372.97	424.58	101.90	4,362.91
284	10.11 08:45:00	0:15:00		7,290.54	1,822.64	1,158.10	289.53	6,226.24
284	10.11 09:00:00	0:15:00		5,059.95	1,264.99	1,691.61	422.90	7,923.31
284	10.11 09:15:00	0:15:00		3,428.14	857.04	1,980.21	495.05	9,266.53
284	10.11 09:30:00	0:15:00		2,408.51	602.13	2,125.87	531.47	10,140.50
284	10.11 09:45:00	0:15:00		1,896.58	474.15	2,333.57	583.39	10,444.73
284	10.11 10:00:00	0:15:00		1,835.29	458.82	2,496.60	624.15	10,342.99
284	10.11 10:15:00	0:15:00		1,831.07	457.77	2,658.14	664.54	10,185.66
284	10.11 10:30:00	0:15:00		1,825.36	456.34	2,765.09	691.27	10,084.42
284	10.11 10:45:00	0:15:00		1,820.15	455.04	2,823.41	705.85	10,031.32
284	10.11 11:00:00	0:15:00		1,815.69	453.92	2,800.58	700.15	10,058.61
284	10.11 11:15:00	0:15:00		1,797.57	449.39	2,847.23	711.81	10,030.07
284	10.11 11:30:00	0:15:00		1,766.06	441.51	2,910.51	727.63	9,998.31
284	10.11 11:45:00	0:15:00		1,741.99	435.50	3,029.12	757.28	9,903.77
284	10.11 12:00:00	0:15:00		1,715.68	428.92	3,115.23	778.81	9,843.96
284	10.11 12:15:00	0:15:00		1,697.07	424.27	3,234.34	808.59	9,743.47
284	10.11 12:30:00	0:15:00		1,675.24	418.81	3,323.42	830.86	9,676.22
284	10.11 12:45:00	0:15:00		1,658.61	414.65	3,455.93	863.98	9,560.33
284	10.11 13:00:00	0:15:00		1,676.23	419.06	3,587.20	896.80	9,411.45
284	10.11 13:15:00	0:15:00		1,749.43	437.36	3,624.67	906.17	9,300.77
284	10.11 13:30:00	0:15:00		1,902.04	475.51	3,578.02	894.51	9,194.81
284	10.11 13:45:00	0:15:00		2,208.01	552.00	3,566.86	891.71	8,900.02
284	10.11 14:00:00	0:15:00		2,543.00	635.75	3,713.51	928.38	8,418.36
284	10.11 14:15:00	0:15:00		2,886.93	721.73	4,059.18	1,014.79	7,728.77
284	10.11 14:30:00	0:15:00		3,240.79	810.20	4,349.01	1,087.25	7,085.07
284	10.11 14:45:00	0:15:00		3,613.76	903.44	4,729.42	1,182.36	6,331.70
284	10.11 15:00:00	0:15:00		4,012.77	1,003.19	5,098.17	1,274.54	5,563.94
284	10.11 15:15:00	0:15:00		4,447.53	1,111.88	5,639.13	1,409.78	4,588.23
284	10.11 15:30:00	0:15:00		4,924.96	1,231.24	6,180.58	1,545.15	3,569.34
284	10.11 15:45:00	0:15:00		5,454.75	1,363.69	6,835.19	1,708.80	2,384.93
284	10.11 16:00:00	0:15:00		6,072.64	1,518.16	6,364.95	1,591.24	2,237.29
284	10.11 16:15:00	0:15:00		6,878.62	1,719.65	5,709.60	1,427.40	2,086.66
284	10.11 16:30:00	0:15:00		7,956.56	1,989.14	4,940.35	1,235.09	1,777.97
284	10.11 16:45:00	0:15:00		9,389.61	2,347.40	4,091.19	1,022.80	1,194.08
284	10.11 17:00:00	0:15:00		11,151.20	2,787.80	3,383.97	845.99	139.71
284	10.11 17:15:00	0:15:00		12,023.19	3,005.80	2,613.97	653.49	37.72
284	10.11 17:30:00	0:11:24		13,235.88	2,514.82	1,439.00	273.41	0.00
284	10.11 17:37:12	0:03:36		14,053.27	843.20	621.61	37.30	0.00
291	10.18 08:22:48	0:03:36		11,875.04	712.50	463.29	27.80	2,336.55
291	10.18 08:30:00	0:10:48		10,629.35	1,913.28	616.40	110.95	3,429.13
291	10.18 08:45:00	0:15:00		8,309.68	2,077.42	1,280.44	320.11	5,084.77
291	10.18 09:00:00	0:15:00		5,844.34	1,461.09	1,937.53	484.38	6,893.01
291	10.18 09:15:00	0:15:00		3,961.16	990.29	2,338.53	584.63	8,375.19
291	10.18 09:30:00	0:15:00		2,696.36	674.09	2,500.57	625.14	9,477.95
291	10.18 09:45:00	0:15:00		2,053.41	513.35	2,700.83	675.21	9,920.64
291	10.18 10:00:00	0:15:00		1,903.28	475.82	2,887.18	721.80	9,884.41
291	10.18 10:15:00	0:15:00		1,893.61	473.40	3,061.88	765.47	9,719.40
291	10.18 10:30:00	0:15:00		1,883.68	470.92	3,199.35	799.84	9,591.85
291	10.18 10:45:00	0:15:00		1,878.72	469.68	3,288.68	822.17	9,507.48



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
291	10.18 11:00:00	0:15:00		1,869.53	467.38	3,268.09	817.02	9,537.26
291	10.18 11:15:00	0:15:00		1,854.89	463.72	3,294.89	823.72	9,525.10
291	10.18 11:30:00	0:15:00		1,816.93	454.23	3,340.30	835.07	9,517.65
291	10.18 11:45:00	0:15:00		1,791.37	447.84	3,454.69	863.67	9,428.82
291	10.18 12:00:00	0:15:00		1,763.58	440.89	3,521.69	880.42	9,389.61
291	10.18 12:15:00	0:15:00		1,744.47	436.12	3,645.27	911.32	9,285.14
291	10.18 12:30:00	0:15:00		1,721.39	430.35	3,720.95	930.24	9,232.53
291	10.18 12:45:00	0:15:00		1,706.25	426.56	3,891.43	972.86	9,077.19
291	10.18 13:00:00	0:15:00		1,735.54	433.88	4,034.12	1,008.53	8,905.23
291	10.18 13:15:00	0:15:00		1,817.92	454.48	4,069.85	1,017.46	8,787.11
291	10.18 13:30:00	0:15:00		2,011.23	502.81	4,037.84	1,009.46	8,625.81
291	10.18 13:45:00	0:15:00		2,327.61	581.90	4,094.91	1,023.73	8,252.35
291	10.18 14:00:00	0:15:00		2,670.55	667.64	4,378.79	1,094.70	7,625.54
291	10.18 14:15:00	0:15:00		3,017.21	754.30	4,779.30	1,194.83	6,878.37
291	10.18 14:30:00	0:15:00		3,381.49	845.37	5,146.06	1,286.52	6,147.33
291	10.18 14:45:00	0:15:00		3,765.87	941.47	5,588.01	1,397.00	5,321.00
291	10.18 15:00:00	0:15:00		4,174.81	1,043.70	6,068.91	1,517.23	4,431.15
291	10.18 15:15:00	0:15:00		4,623.96	1,155.99	6,783.08	1,695.77	3,267.84
291	10.18 15:30:00	0:15:00		5,122.48	1,280.62	7,493.52	1,873.38	2,058.87
291	10.18 15:45:00	0:15:00		5,670.89	1,417.72	7,728.02	1,932.01	1,275.97
291	10.18 16:00:00	0:15:00		6,362.22	1,590.56	7,010.13	1,752.53	1,302.52
291	10.18 16:15:00	0:15:00		7,286.82	1,821.70	6,231.70	1,557.93	1,156.36
291	10.18 16:30:00	0:15:00		8,552.86	2,138.22	5,082.53	1,270.63	1,039.49
291	10.18 16:45:00	0:15:00		10,247.70	2,561.93	4,154.71	1,038.68	272.47
291	10.18 17:00:00	0:15:00		11,377.51	2,844.38	3,297.37	824.34	0.00
291	10.18 17:15:00	0:13:12		12,323.19	2,711.10	2,351.68	517.37	0.00
291	10.18 17:27:00	0:06:00		13,893.71	1,389.37	781.17	78.12	0.00
298	10.25 07:30:00	0:07:48		11,869.58	1,543.05	700.27	91.04	2,105.03
298	10.25 07:45:00	0:15:00		9,150.15	2,287.54	1,432.30	358.08	4,092.43
298	10.25 08:00:00	0:15:00		6,642.88	1,660.72	2,172.77	543.19	5,859.23
298	10.25 08:15:00	0:15:00		4,617.76	1,154.44	2,674.52	668.63	7,382.60
298	10.25 08:30:00	0:15:00		3,113.00	778.25	2,866.59	716.65	8,695.30
298	10.25 08:45:00	0:15:00		2,260.12	565.03	3,061.88	765.47	9,352.88
298	10.25 09:00:00	0:15:00		1,974.00	493.50	3,269.82	817.46	9,431.05
298	10.25 09:15:00	0:15:00		1,962.84	490.71	3,465.36	866.34	9,246.68
298	10.25 09:30:00	0:15:00		1,947.45	486.86	3,629.64	907.41	9,097.79
298	10.25 09:45:00	0:15:00		1,939.26	484.82	3,785.22	946.31	8,950.39
298	10.25 10:00:00	0:15:00		1,928.10	482.02	3,782.74	945.69	8,964.04
298	10.25 10:15:00	0:15:00		1,912.46	478.12	3,819.72	954.93	8,942.70
298	10.25 10:30:00	0:15:00		1,875.74	468.94	3,848.01	962.00	8,951.13
298	10.25 10:45:00	0:15:00		1,843.73	460.93	3,974.06	993.52	8,857.09
298	10.25 11:00:00	0:15:00		1,813.45	453.36	4,041.06	1,010.27	8,820.36
298	10.25 11:15:00	0:15:00		1,794.59	448.65	4,171.34	1,042.84	8,708.94
298	10.25 11:30:00	0:15:00		1,771.52	442.88	4,252.48	1,063.12	8,650.88
298	10.25 11:45:00	0:15:00		1,759.11	439.78	4,475.07	1,118.77	8,440.70
298	10.25 12:00:00	0:15:00		1,796.08	449.02	4,609.32	1,152.33	8,269.48
298	10.25 12:15:00	0:15:00		1,887.40	471.85	4,643.31	1,160.83	8,144.16
298	10.25 12:30:00	0:15:00		2,113.46	528.37	4,610.06	1,152.52	7,951.35
298	10.25 12:45:00	0:15:00		2,440.02	610.01	4,716.77	1,179.19	7,518.09
298	10.25 13:00:00	0:15:00		2,782.47	695.62	5,057.47	1,264.37	6,834.94
298	10.25 13:15:00	0:15:00		3,142.03	785.51	5,407.11	1,351.78	6,125.74
298	10.25 13:30:00	0:15:00		3,512.51	878.13	5,724.74	1,431.18	5,437.63
298	10.25 13:45:00	0:15:00		3,904.09	976.02	6,180.58	1,545.15	4,590.21
298	10.25 14:00:00	0:15:00		4,321.96	1,080.49	6,880.35	1,720.09	3,472.56
298	10.25 14:15:00	0:15:00		4,783.77	1,195.94	7,863.51	1,965.88	2,027.60
298	10.25 14:30:00	0:15:00		5,287.25	1,321.81	8,939.47	2,234.87	448.15
298	10.25 14:45:00	0:15:00		5,866.68	1,466.67	8,412.41	2,103.10	395.79
298	10.25 15:00:00	0:15:00		6,639.65	1,659.91	7,584.34	1,896.09	450.88



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
298	10.25 15:15:00	0:15:00	7,716.11	1,929.03	6,434.68	1,608.67	524.09	131.02
298	10.25 15:30:00	0:15:00	9,142.21	2,285.55	5,114.05	1,278.51	418.62	104.66
298	10.25 15:45:00	0:15:00	10,621.41	2,655.35	4,053.47	1,013.37	0.00	0.00
298	10.25 16:00:00	0:15:00	11,583.22	2,895.81	3,091.66	772.91	0.00	0.00
298	10.25 16:15:00	0:09:00	13,196.92	1,979.54	1,477.96	221.69	0.00	0.00
298	10.25 16:18:00	0:01:48	13,679.81	410.39	995.07	29.85	0.00	0.00
305	11.01 07:36:35	0:04:12	12,224.43	855.71	671.24	46.99	1,779.21	124.55
305	11.01 07:45:00	0:11:24	10,265.32	1,950.41	1,342.47	255.07	3,067.09	582.75
305	11.01 08:00:00	0:15:00	7,467.47	1,866.87	2,401.06	600.27	4,806.35	1,201.59
305	11.01 08:15:00	0:15:00	5,281.05	1,320.26	2,982.22	745.56	6,411.61	1,602.90
305	11.01 08:30:00	0:15:00	3,570.58	892.64	3,231.11	807.78	7,873.19	1,968.30
305	11.01 08:45:00	0:15:00	2,516.45	629.11	3,416.98	854.24	8,741.45	2,185.36
305	11.01 09:00:00	0:15:00	2,073.51	518.38	3,637.58	909.39	8,963.79	2,240.95
305	11.01 09:15:00	0:15:00	2,033.81	508.45	3,858.18	964.55	8,782.89	2,195.72
305	11.01 09:30:00	0:15:00	2,013.46	503.37	4,046.52	1,011.63	8,614.90	2,153.72
305	11.01 09:45:00	0:15:00	2,001.05	500.26	4,268.61	1,067.15	8,405.21	2,101.30
305	11.01 10:00:00	0:15:00	1,986.91	496.73	4,297.40	1,074.35	8,390.57	2,097.64
305	11.01 10:15:00	0:15:00	1,974.75	493.69	4,346.28	1,086.57	8,353.85	2,088.46
305	11.01 10:30:00	0:15:00	1,932.07	483.02	4,383.01	1,095.75	8,359.80	2,089.95
305	11.01 10:45:00	0:15:00	1,900.55	475.14	4,503.86	1,125.96	8,270.47	2,067.62
305	11.01 11:00:00	0:15:00	1,866.56	466.64	4,581.77	1,145.44	8,226.55	2,056.64
305	11.01 11:15:00	0:15:00	1,846.46	461.61	4,726.94	1,181.74	8,101.48	2,025.37
305	11.01 11:30:00	0:15:00	1,824.62	456.16	4,819.00	1,204.75	8,031.26	2,007.81
305	11.01 11:45:00	0:15:00	1,812.46	453.12	5,090.23	1,272.56	7,772.19	1,943.05
305	11.01 12:00:00	0:15:00	1,857.38	464.34	5,212.81	1,303.20	7,604.69	1,901.17
305	11.01 12:15:00	0:15:00	1,955.89	488.97	5,251.52	1,312.88	7,467.47	1,866.87
305	11.01 12:30:00	0:15:00	2,202.55	550.64	5,213.06	1,303.26	7,259.27	1,814.82
305	11.01 12:45:00	0:15:00	2,535.31	633.83	5,403.14	1,350.78	6,736.43	1,684.11
305	11.01 13:00:00	0:15:00	2,878.75	719.69	5,704.64	1,426.16	6,091.50	1,522.87
305	11.01 13:15:00	0:15:00	3,247.99	812.00	5,998.94	1,499.73	5,427.95	1,356.99
305	11.01 13:30:00	0:15:00	3,620.70	905.18	6,274.13	1,568.53	4,780.04	1,195.01
305	11.01 13:45:00	0:15:00	4,020.72	1,005.18	6,782.83	1,695.71	3,871.33	967.83
305	11.01 14:00:00	0:15:00	4,442.56	1,110.64	7,694.77	1,923.69	2,537.54	634.39
305	11.01 14:15:00	0:15:00	4,913.55	1,228.39	8,779.91	2,194.98	981.42	245.36
305	11.01 14:30:00	0:15:00	5,423.24	1,355.81	9,240.72	2,310.18	10.92	2.73
305	11.01 14:45:00	0:15:00	6,053.28	1,513.32	8,621.60	2,155.40	0.00	0.00
305	11.01 15:00:00	0:15:00	6,909.88	1,727.47	7,760.03	1,940.01	4.96	1.24
305	11.01 15:15:00	0:15:00	8,130.27	2,032.57	6,414.83	1,603.71	129.78	32.45
305	11.01 15:30:00	0:15:00	9,665.05	2,416.26	4,962.93	1,240.73	46.90	11.73
305	11.01 15:45:00	0:15:00	10,713.97	2,678.49	3,960.91	990.23	0.00	0.00
305	11.01 16:00:00	0:12:36	11,978.77	2,515.54	2,696.11	566.18	0.00	0.00
305	11.01 16:10:12	0:05:24	13,443.58	1,209.92	1,231.30	110.82	0.00	0.00
312	11.08 07:43:48	0:00:36	12,186.71	121.87	999.78	10.00	1,488.38	14.88
312	11.08 07:45:00	0:07:48	11,961.40	1,554.98	1,067.77	138.81	1,645.71	213.94
312	11.08 08:00:00	0:15:00	9,005.23	2,251.31	1,977.23	494.31	3,692.42	923.10
312	11.08 08:15:00	0:15:00	6,002.41	1,500.60	3,204.56	801.14	5,467.90	1,366.98
312	11.08 08:30:00	0:15:00	4,112.78	1,028.19	3,552.46	888.12	7,009.64	1,752.41
312	11.08 08:45:00	0:15:00	2,847.23	711.81	3,751.23	937.81	8,076.42	2,019.11
312	11.08 09:00:00	0:15:00	2,228.35	557.09	3,973.07	993.27	8,473.45	2,118.36
312	11.08 09:15:00	0:15:00	2,106.02	526.50	4,228.17	1,057.04	8,340.69	2,085.17
312	11.08 09:30:00	0:15:00	2,080.96	520.24	4,436.61	1,109.15	8,157.31	2,039.33
312	11.08 09:45:00	0:15:00	2,064.08	516.02	4,703.37	1,175.84	7,907.43	1,976.86
312	11.08 10:00:00	0:15:00	2,046.22	511.55	4,785.75	1,196.44	7,842.91	1,960.73
312	11.08 10:15:00	0:15:00	2,036.79	509.20	4,856.72	1,214.18	7,781.37	1,945.34
312	11.08 10:30:00	0:15:00	1,993.11	498.28	4,902.38	1,225.60	7,779.39	1,944.85
312	11.08 10:45:00	0:15:00	1,956.14	489.03	5,026.95	1,256.74	7,691.79	1,922.95
312	11.08 11:00:00	0:15:00	1,921.40	480.35	5,111.57	1,277.89	7,641.91	1,910.48
312	11.08 11:15:00	0:15:00	1,901.05	475.26	5,266.91	1,316.73	7,506.92	1,876.73



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
312	11.08 11:30:00	0:15:00	1,876.23	469.06	5,371.87	1,342.97	7,426.77	1,856.69
312	11.08 11:45:00	0:15:00	1,864.08	466.02	5,688.01	1,422.00	7,122.79	1,780.70
312	11.08 12:00:00	0:15:00	1,914.20	478.55	5,808.36	1,452.09	6,952.32	1,738.08
312	11.08 12:15:00	0:15:00	2,020.66	505.16	5,858.24	1,464.56	6,795.98	1,699.00
312	11.08 12:30:00	0:15:00	2,273.27	568.32	5,827.22	1,456.81	6,574.39	1,643.60
312	11.08 12:45:00	0:15:00	2,609.26	652.32	6,064.20	1,516.05	6,001.42	1,500.36
312	11.08 13:00:00	0:15:00	2,962.87	740.72	6,305.40	1,576.35	5,406.61	1,351.65
312	11.08 13:15:00	0:15:00	3,330.87	832.72	6,540.64	1,635.16	4,803.37	1,200.84
312	11.08 13:30:00	0:15:00	3,706.31	926.58	6,764.22	1,691.06	4,204.34	1,051.09
312	11.08 13:45:00	0:15:00	4,110.79	1,027.70	7,370.19	1,842.55	3,193.89	798.47
312	11.08 14:00:00	0:15:00	4,534.38	1,133.59	8,286.35	2,071.59	1,854.15	463.54
312	11.08 14:15:00	0:15:00	4,997.67	1,249.42	9,290.85	2,322.71	386.36	96.59
312	11.08 14:30:00	0:15:00	5,508.85	1,377.21	9,166.03	2,291.51	0.00	0.00
312	11.08 14:45:00	0:15:00	6,188.27	1,547.07	8,486.60	2,121.65	0.00	0.00
312	11.08 15:00:00	0:15:00	7,149.34	1,787.34	7,525.53	1,881.38	0.00	0.00
312	11.08 15:15:00	0:15:00	8,441.19	2,110.30	6,233.68	1,558.42	0.00	0.00
312	11.08 15:30:00	0:15:00	9,789.62	2,447.41	4,885.26	1,221.31	0.00	0.00
312	11.08 15:45:00	0:15:00	10,851.69	2,712.92	3,823.19	955.80	0.00	0.00
312	11.08 16:00:00	0:09:00	12,633.87	1,895.08	2,041.00	306.15	0.00	0.00
312	11.08 16:03:00	0:01:48	13,170.37	395.11	1,504.51	45.14	0.00	0.00
319	11.15 07:51:00	0:04:48	12,537.84	1,003.03	971.25	77.70	1,165.79	93.26
319	11.15 08:00:00	0:12:00	10,828.86	2,165.77	1,235.27	247.05	2,610.75	522.15
319	11.15 08:15:00	0:15:00	7,638.69	1,909.67	2,590.40	647.60	4,445.79	1,111.45
319	11.15 08:30:00	0:15:00	4,731.90	1,182.98	3,810.29	952.57	6,132.69	1,533.17
319	11.15 08:45:00	0:15:00	3,266.35	816.59	4,069.35	1,017.34	7,339.18	1,834.79
319	11.15 09:00:00	0:15:00	2,410.00	602.50	4,271.84	1,067.96	7,993.04	1,998.26
319	11.15 09:15:00	0:15:00	2,177.48	544.37	4,558.20	1,139.55	7,939.19	1,984.80
319	11.15 09:30:00	0:15:00	2,147.21	536.80	4,775.58	1,193.89	7,752.09	1,938.02
319	11.15 09:45:00	0:15:00	2,127.61	531.90	5,094.20	1,273.55	7,453.08	1,863.27
319	11.15 10:00:00	0:15:00	2,106.27	526.57	5,250.78	1,312.69	7,317.84	1,829.46
319	11.15 10:15:00	0:15:00	2,093.11	523.28	5,339.12	1,334.78	7,242.65	1,810.66
319	11.15 10:30:00	0:15:00	2,050.68	512.67	5,383.04	1,345.76	7,241.16	1,810.29
319	11.15 10:45:00	0:15:00	2,012.72	503.18	5,520.51	1,380.13	7,141.65	1,785.41
319	11.15 11:00:00	0:15:00	1,975.74	493.94	5,620.02	1,405.00	7,079.12	1,769.78
319	11.15 11:15:00	0:15:00	1,952.66	488.17	5,782.55	1,445.64	6,939.66	1,734.92
319	11.15 11:30:00	0:15:00	1,929.09	482.27	5,893.97	1,473.49	6,851.82	1,712.95
319	11.15 11:45:00	0:15:00	1,915.44	478.86	6,244.60	1,561.15	6,514.83	1,628.71
319	11.15 12:00:00	0:15:00	1,963.58	490.90	6,370.16	1,592.54	6,341.13	1,585.28
319	11.15 12:15:00	0:15:00	2,077.98	519.49	6,437.91	1,609.48	6,158.99	1,539.75
319	11.15 12:30:00	0:15:00	2,328.11	582.03	6,424.26	1,606.07	5,922.51	1,480.63
319	11.15 12:45:00	0:15:00	2,663.35	665.84	6,672.65	1,668.16	5,338.87	1,334.72
319	11.15 13:00:00	0:15:00	3,016.72	754.18	6,843.13	1,710.78	4,815.03	1,203.76
319	11.15 13:15:00	0:15:00	3,388.44	847.11	7,018.57	1,754.64	4,267.87	1,066.97
319	11.15 13:30:00	0:15:00	3,768.10	942.03	7,212.87	1,803.22	3,693.91	923.48
319	11.15 13:45:00	0:15:00	4,169.35	1,042.34	7,887.33	1,971.83	2,618.19	654.55
319	11.15 14:00:00	0:15:00	4,590.71	1,147.68	8,734.01	2,183.50	1,350.16	337.54
319	11.15 14:15:00	0:15:00	5,043.82	1,260.96	9,631.06	2,407.76	0.00	0.00
319	11.15 14:30:00	0:15:00	5,565.18	1,391.29	9,109.70	2,277.43	0.00	0.00
319	11.15 14:45:00	0:15:00	6,290.26	1,572.57	8,384.62	2,096.15	0.00	0.00
319	11.15 15:00:00	0:15:00	7,337.19	1,834.30	7,337.69	1,834.42	0.00	0.00
319	11.15 15:15:00	0:15:00	8,613.66	2,153.41	6,061.22	1,515.31	0.00	0.00
319	11.15 15:30:00	0:15:00	9,791.85	2,447.96	4,883.02	1,220.76	0.00	0.00
319	11.15 15:45:00	0:13:48	11,083.46	2,549.20	3,591.42	826.03	0.00	0.00
319	11.15 15:57:36	0:06:36	12,979.54	1,427.75	1,695.34	186.49	0.00	0.00
326	11.22 07:57:36	0:01:12	13,460.95	269.22	299.26	5.99	914.67	18.29
326	11.22 08:00:00	0:09:00	13,123.71	1,968.56	267.25	40.09	1,283.91	192.59
326	11.22 08:15:00	0:15:00	9,656.61	2,414.15	1,633.55	408.39	3,384.72	846.18
326	11.22 08:30:00	0:15:00	5,958.74	1,489.68	3,565.61	891.40	5,150.53	1,287.63



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr	
326	11.22 08:45:00	0:15:00		3,720.71	930.18	4,342.06	1,085.52	6,612.11	1,653.03
326	11.22 09:00:00	0:15:00		2,666.58	666.65	4,524.70	1,131.18	7,483.60	1,870.90
326	11.22 09:15:00	0:15:00		2,254.16	563.54	4,833.89	1,208.47	7,586.83	1,896.71
326	11.22 09:30:00	0:15:00		2,215.45	553.86	5,068.89	1,267.22	7,390.54	1,847.64
326	11.22 09:45:00	0:15:00		2,189.15	547.29	5,420.26	1,355.07	7,065.47	1,766.37
326	11.22 10:00:00	0:15:00		2,161.85	540.46	5,657.74	1,414.43	6,855.29	1,713.82
326	11.22 10:15:00	0:15:00		2,147.46	536.87	5,777.09	1,444.27	6,750.32	1,687.58
326	11.22 10:30:00	0:15:00		2,108.75	527.19	5,825.98	1,456.50	6,740.15	1,685.04
326	11.22 10:45:00	0:15:00		2,066.31	516.58	5,967.17	1,491.79	6,641.39	1,660.35
326	11.22 11:00:00	0:15:00		2,026.12	506.53	6,069.91	1,517.48	6,578.86	1,644.71
326	11.22 11:15:00	0:15:00		2,001.30	500.33	6,246.84	1,561.71	6,426.74	1,606.69
326	11.22 11:30:00	0:15:00		1,977.73	494.43	6,366.19	1,591.55	6,330.96	1,582.74
326	11.22 11:45:00	0:15:00		1,964.08	491.02	6,726.25	1,681.56	5,984.55	1,496.14
326	11.22 12:00:00	0:15:00		2,007.75	501.94	6,884.32	1,721.08	5,782.80	1,445.70
326	11.22 12:15:00	0:15:00		2,118.67	529.67	6,966.46	1,741.62	5,589.74	1,397.44
326	11.22 12:30:00	0:15:00		2,360.62	590.15	6,954.05	1,738.51	5,360.21	1,340.05
326	11.22 12:45:00	0:15:00		2,693.88	673.47	7,196.99	1,799.25	4,784.01	1,196.00
326	11.22 13:00:00	0:15:00		3,044.51	761.13	7,305.68	1,826.42	4,324.69	1,081.17
326	11.22 13:15:00	0:15:00		3,418.22	854.55	7,429.25	1,857.31	3,827.41	956.85
326	11.22 13:30:00	0:15:00		3,795.15	948.79	7,587.57	1,896.89	3,292.16	823.04
326	11.22 13:45:00	0:15:00		4,190.20	1,047.55	8,277.42	2,069.35	2,207.26	551.82
326	11.22 14:00:00	0:15:00		4,606.09	1,151.52	9,054.61	2,263.65	1,014.17	253.54
326	11.22 14:15:00	0:15:00		5,050.27	1,262.57	9,624.60	2,406.15	0.00	0.00
326	11.22 14:30:00	0:15:00		5,577.34	1,394.33	9,097.54	2,274.39	0.00	0.00
326	11.22 14:45:00	0:15:00		6,341.38	1,585.35	8,333.50	2,083.37	0.00	0.00
326	11.22 15:00:00	0:15:00		7,388.81	1,847.20	7,286.07	1,821.52	0.00	0.00
326	11.22 15:15:00	0:15:00		8,629.04	2,157.26	6,045.84	1,511.46	0.00	0.00
326	11.22 15:30:00	0:15:00		9,789.37	2,447.34	4,885.51	1,221.38	0.00	0.00
326	11.22 15:45:00	0:12:00		11,304.31	2,260.86	3,370.57	674.11	0.00	0.00
326	11.22 15:54:00	0:04:48		13,153.49	1,052.28	1,521.39	121.71	0.00	0.00
333	11.29 08:04:12	0:05:24		14,133.42	1,272.01	10.42	0.94	531.03	47.79
333	11.29 08:15:00	0:12:36		11,497.12	2,414.39	884.15	185.67	2,293.62	481.66
333	11.29 08:30:00	0:15:00		7,998.50	1,999.63	2,502.06	625.52	4,174.32	1,043.58
333	11.29 08:45:00	0:15:00		4,565.64	1,141.41	4,290.70	1,072.67	5,818.54	1,454.63
333	11.29 09:00:00	0:15:00		3,003.56	750.89	4,751.75	1,187.94	6,919.56	1,729.89
333	11.29 09:15:00	0:15:00		2,390.89	597.72	5,029.68	1,257.42	7,254.31	1,813.58
333	11.29 09:30:00	0:15:00		2,270.54	567.64	5,302.64	1,325.66	7,101.70	1,775.43
333	11.29 09:45:00	0:15:00		2,245.23	561.31	5,619.03	1,404.76	6,810.62	1,702.66
333	11.29 10:00:00	0:15:00		2,213.47	553.37	5,927.47	1,481.87	6,533.94	1,633.49
333	11.29 10:15:00	0:15:00		2,196.84	549.21	6,144.35	1,536.09	6,333.69	1,583.42
333	11.29 10:30:00	0:15:00		2,163.59	540.90	6,204.90	1,551.23	6,306.39	1,576.60
333	11.29 10:45:00	0:15:00		2,117.93	529.48	6,344.61	1,586.15	6,212.34	1,553.09
333	11.29 11:00:00	0:15:00		2,072.77	518.19	6,442.62	1,610.66	6,159.49	1,539.87
333	11.29 11:15:00	0:15:00		2,043.73	510.93	6,629.73	1,657.43	6,001.42	1,500.36
333	11.29 11:30:00	0:15:00		2,019.42	504.85	6,756.28	1,689.07	5,899.18	1,474.80
333	11.29 11:45:00	0:15:00		2,005.02	501.26	7,088.30	1,772.08	5,581.56	1,395.39
333	11.29 12:00:00	0:15:00		2,029.84	507.46	7,314.11	1,828.53	5,330.93	1,332.73
333	11.29 12:15:00	0:15:00		2,133.07	533.27	7,420.32	1,855.08	5,121.49	1,280.37
333	11.29 12:30:00	0:15:00		2,372.03	593.01	7,417.09	1,854.27	4,885.75	1,221.44
333	11.29 12:45:00	0:15:00		2,696.36	674.09	7,636.95	1,909.24	4,341.57	1,085.39
333	11.29 13:00:00	0:15:00		3,048.97	762.24	7,711.15	1,927.79	3,914.76	978.69
333	11.29 13:15:00	0:15:00		3,419.21	854.80	7,768.97	1,942.24	3,486.70	871.68
333	11.29 13:30:00	0:15:00		3,794.90	948.73	7,885.10	1,971.27	2,994.88	748.72
333	11.29 13:45:00	0:15:00		4,183.00	1,045.75	8,547.15	2,136.79	1,944.72	486.18
333	11.29 14:00:00	0:15:00		4,591.70	1,147.93	9,259.58	2,314.90	823.60	205.90
333	11.29 14:15:00	0:15:00		5,023.47	1,255.87	9,651.40	2,412.85	0.00	0.00
333	11.29 14:30:00	0:15:00		5,542.10	1,385.53	9,132.78	2,283.19	0.00	0.00
333	11.29 14:45:00	0:15:00		6,322.52	1,580.63	8,352.36	2,088.09	0.00	0.00



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
333	11.29 15:00:00	0:15:00		7,366.97	1,841.74	7,307.91	1,826.98	0.00
333	11.29 15:15:00	0:15:00		8,515.14	2,128.79	6,159.74	1,539.93	0.00
333	11.29 15:30:00	0:15:00		9,715.43	2,428.86	4,959.45	1,239.86	0.00
333	11.29 15:45:00	0:10:48		11,618.46	2,091.32	3,056.42	550.16	0.00
333	11.29 15:51:36	0:03:00		13,407.59	670.38	1,267.28	63.36	0.00
340	12.06 08:10:12	0:02:24		14,458.25	578.33	0.00	0.00	216.63
340	12.06 08:15:00	0:10:12		13,525.46	2,299.33	155.59	26.45	993.83
340	12.06 08:30:00	0:15:00		9,565.05	2,391.26	1,863.58	465.90	3,246.25
340	12.06 08:45:00	0:15:00		6,366.94	1,591.74	3,305.06	826.27	5,002.88
340	12.06 09:00:00	0:15:00		3,354.94	838.74	4,919.25	1,229.81	6,400.69
340	12.06 09:15:00	0:15:00		2,540.52	635.13	5,164.67	1,291.17	6,969.69
340	12.06 09:30:00	0:15:00		2,320.66	580.17	5,444.33	1,361.08	6,909.88
340	12.06 09:45:00	0:15:00		2,290.14	572.54	5,764.69	1,441.17	6,620.05
340	12.06 10:00:00	0:15:00		2,256.15	564.04	6,035.91	1,508.98	6,382.82
340	12.06 10:15:00	0:15:00		2,234.81	558.70	6,326.74	1,581.69	6,113.33
340	12.06 10:30:00	0:15:00		2,209.25	552.31	6,469.42	1,617.36	5,996.21
340	12.06 10:45:00	0:15:00		2,160.61	540.15	6,630.97	1,657.74	5,883.30
340	12.06 11:00:00	0:15:00		2,111.48	527.87	6,719.55	1,679.89	5,843.85
340	12.06 11:15:00	0:15:00		2,080.96	520.24	6,916.58	1,729.15	5,677.34
340	12.06 11:30:00	0:15:00		2,054.16	513.54	7,052.82	1,763.20	5,567.91
340	12.06 11:45:00	0:15:00		2,038.03	509.51	7,405.43	1,851.36	5,231.42
340	12.06 12:00:00	0:15:00		2,064.08	516.02	7,661.27	1,915.32	4,949.53
340	12.06 12:15:00	0:15:00		2,159.87	539.97	7,767.72	1,941.93	4,747.29
340	12.06 12:30:00	0:15:00		2,362.85	590.71	7,774.92	1,943.73	4,537.11
340	12.06 12:45:00	0:15:00		2,672.78	668.20	7,973.19	1,993.30	4,028.90
340	12.06 13:00:00	0:15:00		3,025.15	756.29	8,032.00	2,008.00	3,617.73
340	12.06 13:15:00	0:15:00		3,392.16	848.04	8,033.24	2,008.31	3,249.48
340	12.06 13:30:00	0:15:00		3,764.13	941.03	8,081.13	2,020.28	2,829.61
340	12.06 13:45:00	0:15:00		4,150.99	1,037.75	8,694.30	2,173.58	1,829.58
340	12.06 14:00:00	0:15:00		4,551.75	1,137.94	9,357.35	2,339.34	765.78
340	12.06 14:15:00	0:15:00		4,972.85	1,243.21	9,702.03	2,425.51	0.00
340	12.06 14:30:00	0:15:00		5,468.40	1,367.10	9,206.48	2,301.62	0.00
340	12.06 14:45:00	0:15:00		6,242.87	1,560.72	8,432.01	2,108.00	0.00
340	12.06 15:00:00	0:15:00		7,254.81	1,813.70	7,420.07	1,855.02	0.00
340	12.06 15:15:00	0:15:00		8,340.20	2,085.05	6,334.68	1,583.67	0.00
340	12.06 15:30:00	0:15:00		9,579.69	2,394.92	5,095.19	1,273.80	0.00
340	12.06 15:45:00	0:10:12		11,816.98	2,008.89	2,857.90	485.84	0.00
340	12.06 15:51:00	0:03:00		13,564.67	678.23	1,110.21	55.51	0.00
347	12.13 08:15:36	0:07:12		14,602.17	1,752.26	0.00	0.00	72.71
347	12.13 08:30:00	0:15:00		11,069.56	2,767.39	1,201.52	300.38	2,403.79
347	12.13 08:45:00	0:15:00		7,677.15	1,919.29	2,696.36	674.09	4,301.37
347	12.13 09:00:00	0:15:00		4,430.40	1,107.60	4,402.12	1,100.53	5,842.36
347	12.13 09:15:00	0:15:00		2,748.72	687.18	5,240.11	1,310.03	6,686.05
347	12.13 09:30:00	0:15:00		2,359.87	589.97	5,477.09	1,369.27	6,837.92
347	12.13 09:45:00	0:15:00		2,325.38	581.35	5,811.59	1,452.90	6,537.91
347	12.13 10:00:00	0:15:00		2,289.89	572.47	6,084.05	1,521.01	6,300.93
347	12.13 10:15:00	0:15:00		2,264.83	566.21	6,400.93	1,600.23	6,009.11
347	12.13 10:30:00	0:15:00		2,235.55	558.89	6,571.41	1,642.85	5,867.92
347	12.13 10:45:00	0:15:00		2,194.36	548.59	6,786.80	1,696.70	5,693.72
347	12.13 11:00:00	0:15:00		2,141.75	535.44	6,897.48	1,724.37	5,635.65
347	12.13 11:15:00	0:15:00		2,108.25	527.06	7,087.31	1,771.83	5,479.32
347	12.13 11:30:00	0:15:00		2,077.73	519.43	7,218.08	1,804.52	5,379.07
347	12.13 11:45:00	0:15:00		2,062.84	515.71	7,524.79	1,881.20	5,087.25
347	12.13 12:00:00	0:15:00		2,065.07	516.27	7,843.41	1,960.85	4,766.39
347	12.13 12:15:00	0:15:00		2,156.89	539.22	7,989.57	1,997.39	4,528.42
347	12.13 12:30:00	0:15:00		2,328.85	582.21	7,999.25	1,999.81	4,346.78
347	12.13 12:45:00	0:15:00		2,629.11	657.28	8,167.98	2,042.00	3,877.78
347	12.13 13:00:00	0:15:00		2,973.79	743.45	8,240.44	2,060.11	3,460.65



1979 Mission Street Alternative D: Reduced Shadow Alternative 1 (Reduced Capp Component, Sculpted northeast side)

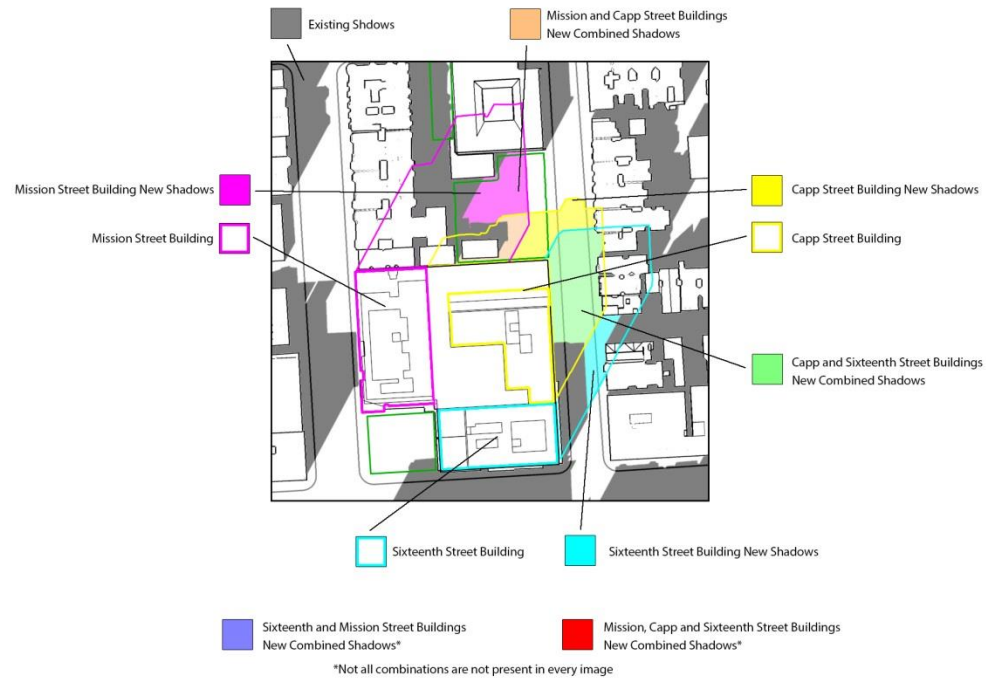
DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
347	12.13 13:15:00	0:15:00	3,342.53	835.63	8,211.66	2,052.91	3,120.69	780.17
347	12.13 13:30:00	0:15:00	3,708.80	927.20	8,185.35	2,046.34	2,780.73	695.18
347	12.13 13:45:00	0:15:00	4,089.45	1,022.36	8,733.51	2,183.38	1,851.92	462.98
347	12.13 14:00:00	0:15:00	4,481.52	1,120.38	9,357.35	2,339.34	836.01	209.00
347	12.13 14:15:00	0:15:00	4,901.39	1,225.35	9,773.49	2,443.37	0.00	0.00
347	12.13 14:30:00	0:15:00	5,370.13	1,342.53	9,304.74	2,326.19	0.00	0.00
347	12.13 14:45:00	0:15:00	6,100.18	1,525.05	8,574.70	2,143.67	0.00	0.00
347	12.13 15:00:00	0:15:00	7,071.43	1,767.86	7,603.45	1,900.86	0.00	0.00
347	12.13 15:15:00	0:15:00	8,129.77	2,032.44	6,545.11	1,636.28	0.00	0.00
347	12.13 15:30:00	0:15:00	9,356.36	2,339.09	5,318.52	1,329.63	0.00	0.00
347	12.13 15:45:00	0:10:48	11,493.39	2,068.81	3,181.48	572.67	0.00	0.00
347	12.13 15:52:11	0:03:36	13,702.89	822.17	971.99	58.32	0.00	0.00
354	12.20 08:19:48	0:04:48	14,620.53	1,169.64	0.00	0.00	54.34	4.35
354	12.20 08:30:00	0:12:36	12,341.56	2,591.73	657.09	137.99	1,676.23	352.01
354	12.20 08:45:00	0:15:00	8,635.74	2,158.94	2,286.17	571.54	3,752.97	938.24
354	12.20 09:00:00	0:15:00	5,331.67	1,332.92	3,890.19	972.55	5,453.02	1,363.25
354	12.20 09:15:00	0:15:00	2,967.83	741.96	5,244.32	1,311.08	6,462.72	1,615.68
354	12.20 09:30:00	0:15:00	2,418.19	604.55	5,456.24	1,364.06	6,800.45	1,700.11
354	12.20 09:45:00	0:15:00	2,341.51	585.38	5,778.83	1,444.71	6,554.54	1,638.63
354	12.20 10:00:00	0:15:00	2,307.51	576.88	6,069.66	1,517.42	6,297.71	1,574.43
354	12.20 10:15:00	0:15:00	2,280.47	570.12	6,379.84	1,594.96	6,014.57	1,503.64
354	12.20 10:30:00	0:15:00	2,249.94	562.49	6,583.82	1,645.96	5,841.12	1,460.28
354	12.20 10:45:00	0:15:00	2,215.20	553.80	6,798.71	1,699.68	5,660.96	1,415.24
354	12.20 11:00:00	0:15:00	2,161.60	540.40	6,949.83	1,737.46	5,563.44	1,390.86
354	12.20 11:15:00	0:15:00	2,122.40	530.60	7,132.47	1,783.12	5,420.01	1,355.00
354	12.20 11:30:00	0:15:00	2,091.63	522.91	7,258.03	1,814.51	5,325.22	1,331.31
354	12.20 11:45:00	0:15:00	2,074.01	518.50	7,514.37	1,878.59	5,086.50	1,271.63
354	12.20 12:00:00	0:15:00	2,059.12	514.78	7,888.57	1,972.14	4,727.19	1,181.80
354	12.20 12:15:00	0:15:00	2,141.26	535.31	8,066.00	2,016.50	4,467.63	1,116.91
354	12.20 12:30:00	0:15:00	2,287.17	571.79	8,081.13	2,020.28	4,306.58	1,076.65
354	12.20 12:45:00	0:15:00	2,565.09	641.27	8,216.13	2,054.03	3,893.66	973.42
354	12.20 13:00:00	0:15:00	2,904.30	726.08	8,336.72	2,084.18	3,433.85	858.46
354	12.20 13:15:00	0:15:00	3,269.58	817.39	8,297.52	2,074.38	3,107.78	776.95
354	12.20 13:30:00	0:15:00	3,634.60	908.65	8,220.84	2,055.21	2,819.44	704.86
354	12.20 13:45:00	0:15:00	4,011.53	1,002.88	8,662.04	2,165.51	2,001.30	500.33
354	12.20 14:00:00	0:15:00	4,401.62	1,100.41	9,282.66	2,320.66	990.60	247.65
354	12.20 14:15:00	0:15:00	4,814.78	1,203.70	9,860.09	2,465.02	0.00	0.00
354	12.20 14:30:00	0:15:00	5,258.22	1,314.56	9,416.66	2,354.16	0.00	0.00
354	12.20 14:45:00	0:15:00	5,923.50	1,480.88	8,751.38	2,187.84	0.00	0.00
354	12.20 15:00:00	0:15:00	6,863.48	1,715.87	7,811.40	1,952.85	0.00	0.00
354	12.20 15:15:00	0:15:00	7,886.34	1,971.59	6,788.54	1,697.14	0.00	0.00
354	12.20 15:30:00	0:15:00	9,083.40	2,270.85	5,591.48	1,397.87	0.00	0.00
354	12.20 15:45:00	0:12:36	10,865.09	2,281.67	3,809.79	800.06	0.00	0.00
354	12.20 15:54:36	0:04:48	13,687.75	1,095.02	987.13	78.97	0.00	0.00

EXHIBIT J.1

1979 Mission Street Shadow Projection Graphics

ALTERNATIVE E

Reduced Shadow Alternative 2
(Reduced Capp Component, 35-foot
setback)



1979 Mission Street Shadow Projections Key



1979 Mission Street
June 21 Sunrise +1 Hour (6:47 am)

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 7:00 am

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |

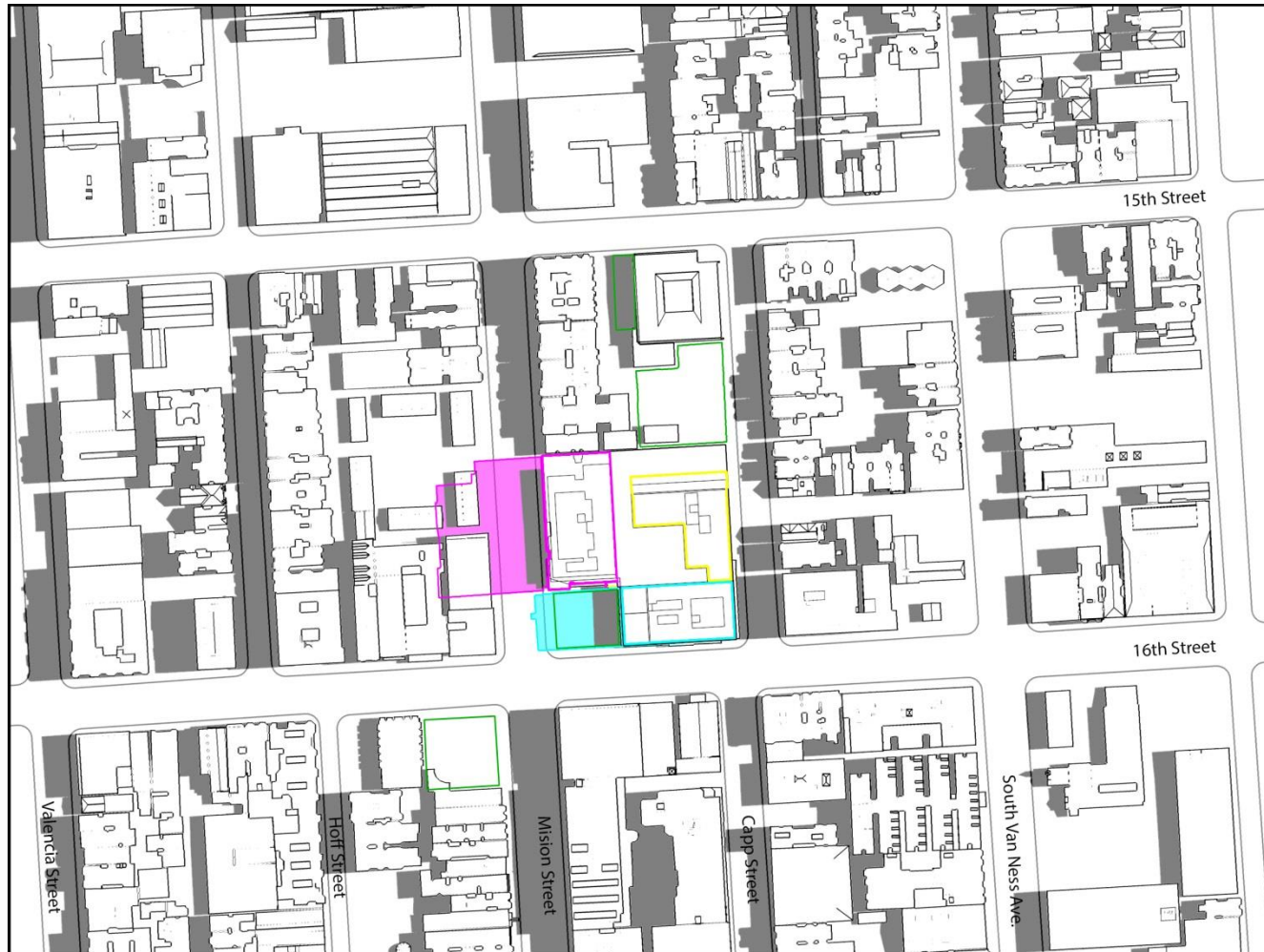




1979 Mission Street
June 21 8:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 9:00 am

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 10:00 am

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 11:00 am

- | | | |
|---|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 12:00 noon

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 1:00 pm

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |



1979 Mission Street
June 21 2:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 3:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 4:00 pm

- | | | |
|--|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 5:00 pm

- | | | |
|---|--|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 6:00 pm

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 7:00 pm

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 Sunset -1 Hour (7:36 pm)

- | | | |
|--|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 28 9:45 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 Sunrise +1 Hour (7:57 am)

- | | | |
|---|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |

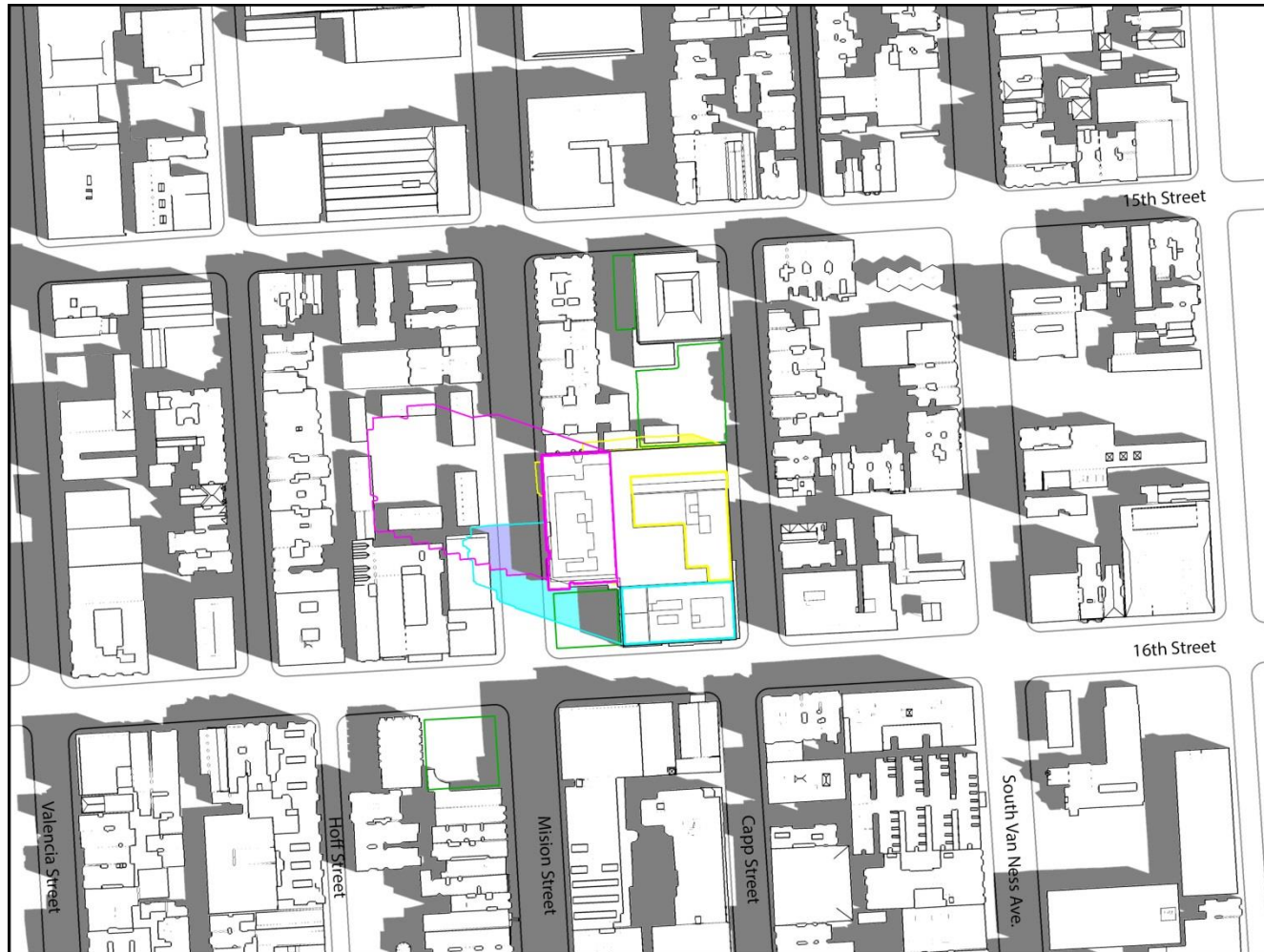




1979 Mission Street
September 20 8:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 9:00 am

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
September 20 10:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 11:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 12:00 noon

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
September 20 1:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 2:00 pm

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |

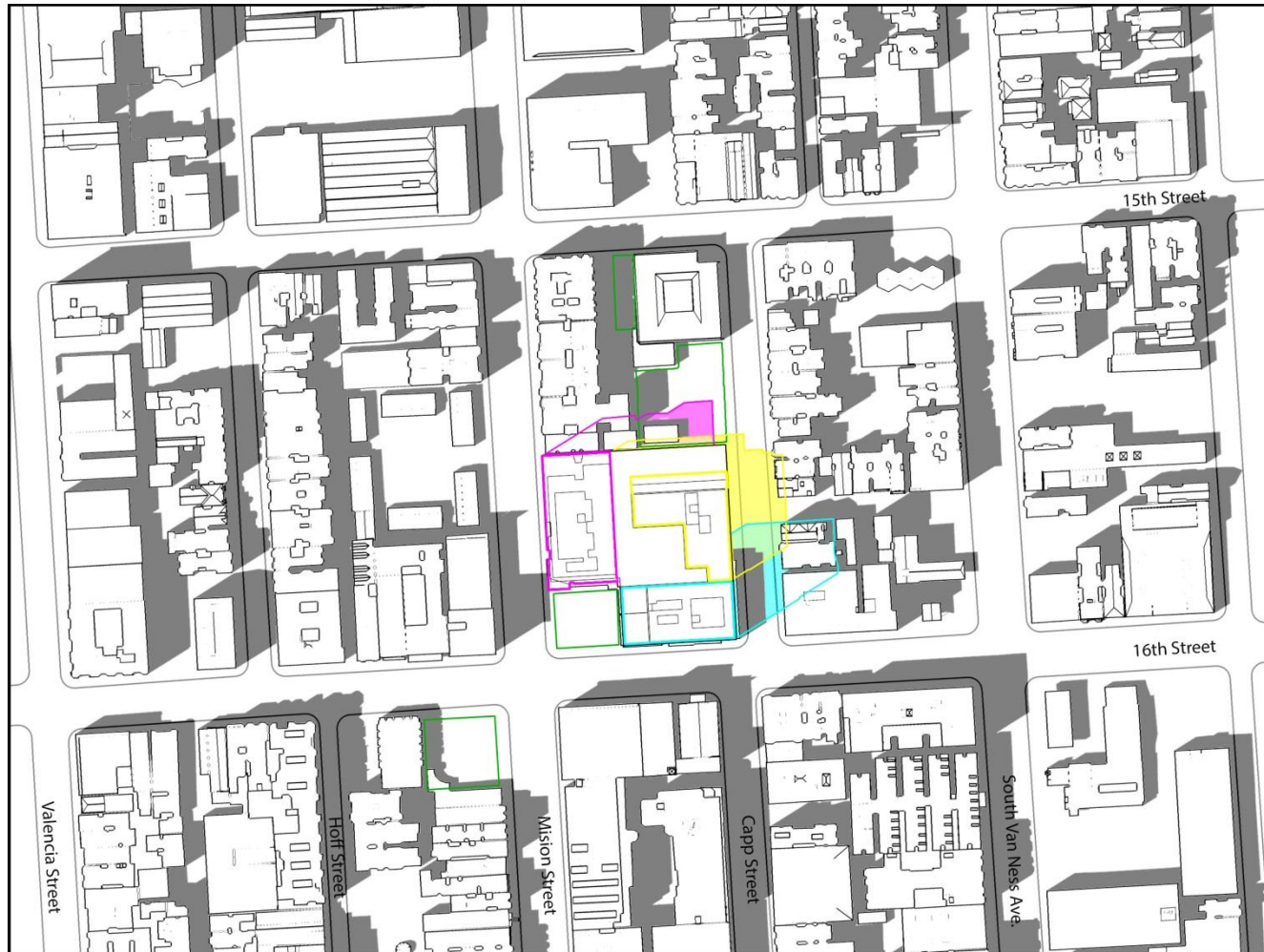




1979 Mission Street
September 20 3:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 4:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 5:00 pm

- | | | |
|--|--|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
September 20 6:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 Sunset -1 Hour (6:10 pm)

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copbined Shadows
- Existing Shadows

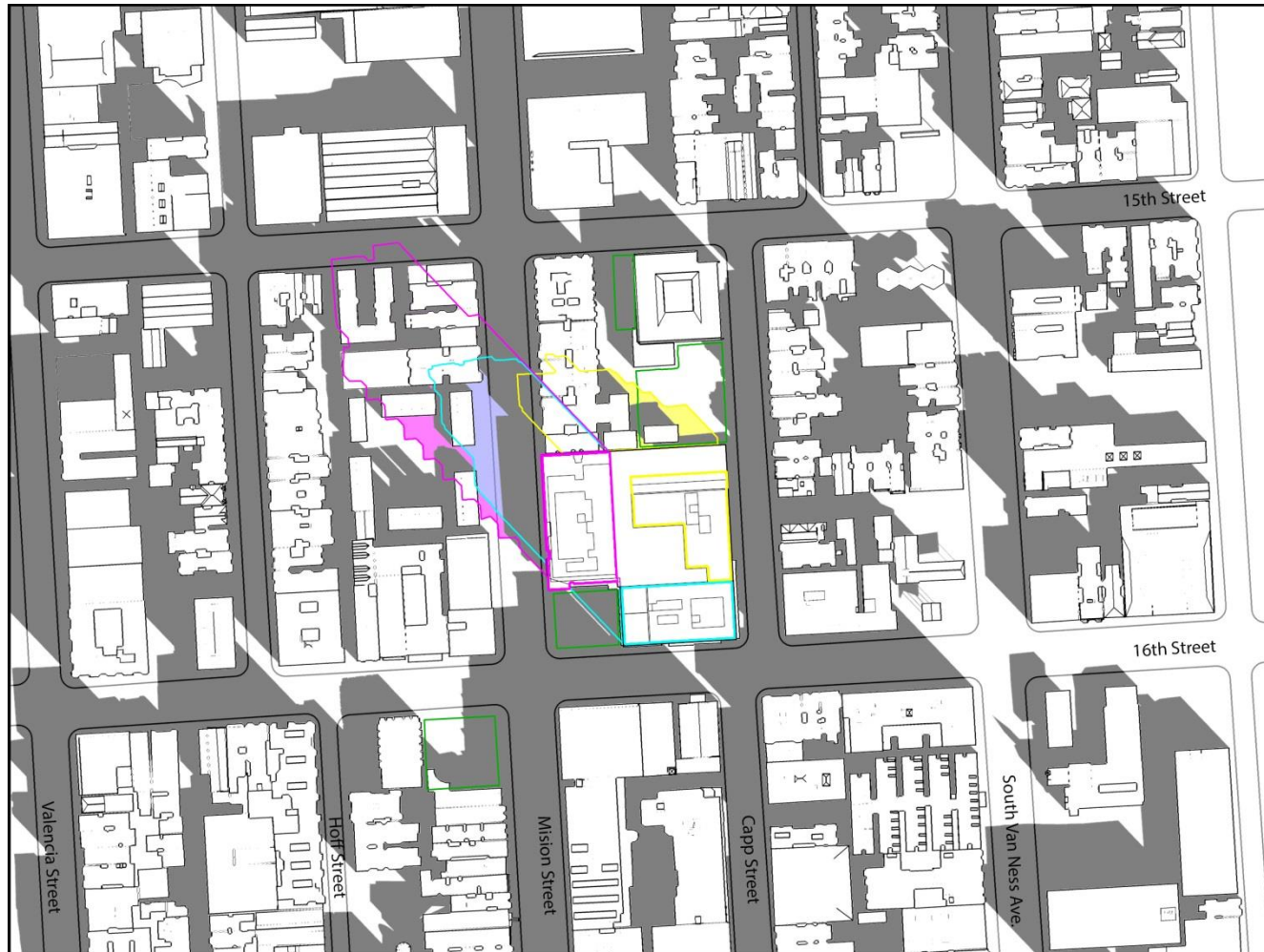




1979 Mission Street
December 20 Sunrise +1 Hour (8:20 am)

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows

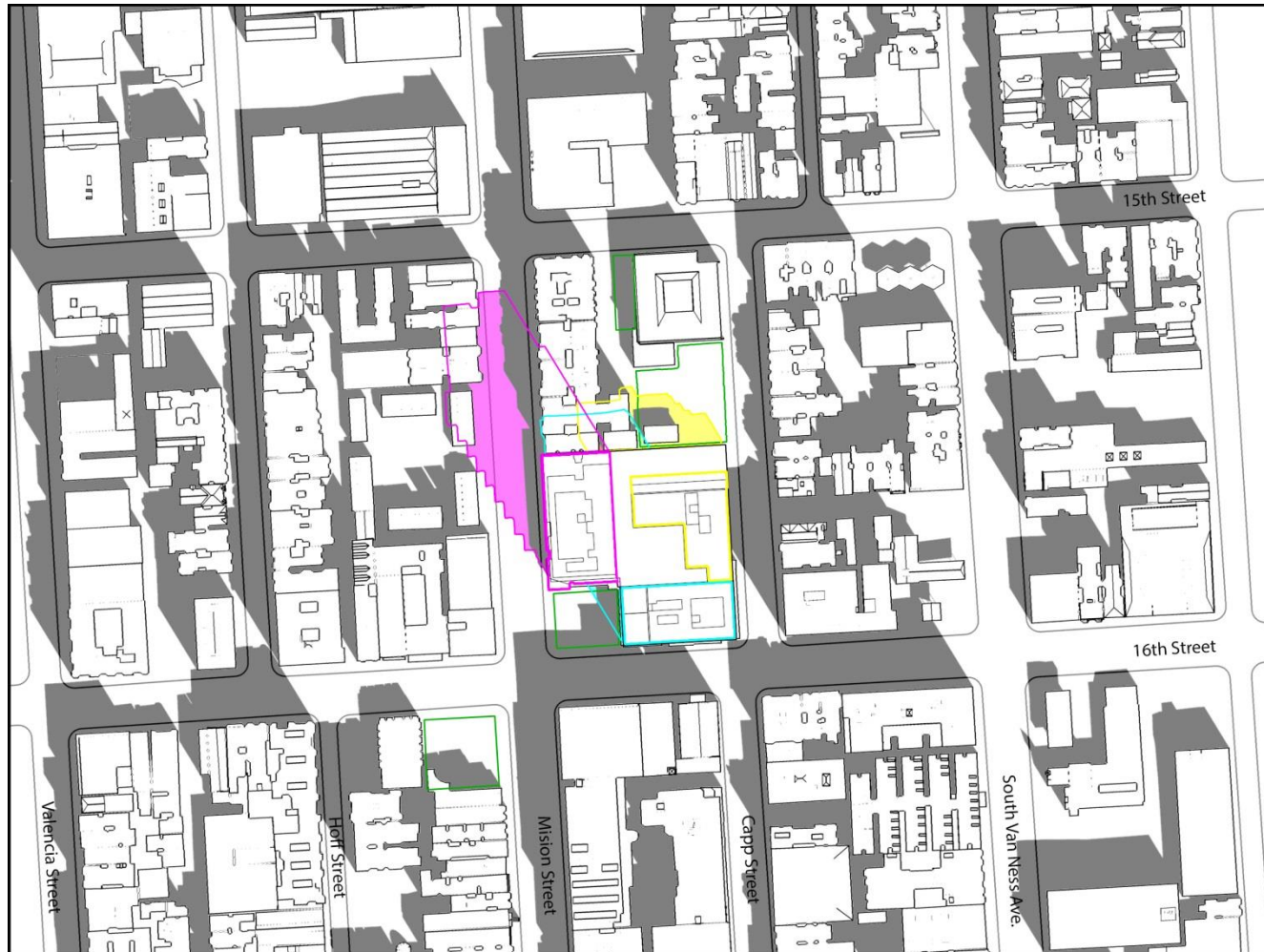




1979 Mission Street
December 20 9:00 am

- | | | |
|---|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
December 20 10:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 11:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 12:00 noon

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copbined Shadows
- Existing Shadows





1979 Mission Street
December 20 12:15 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteen Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copbined Shadows
- Existing Shadows

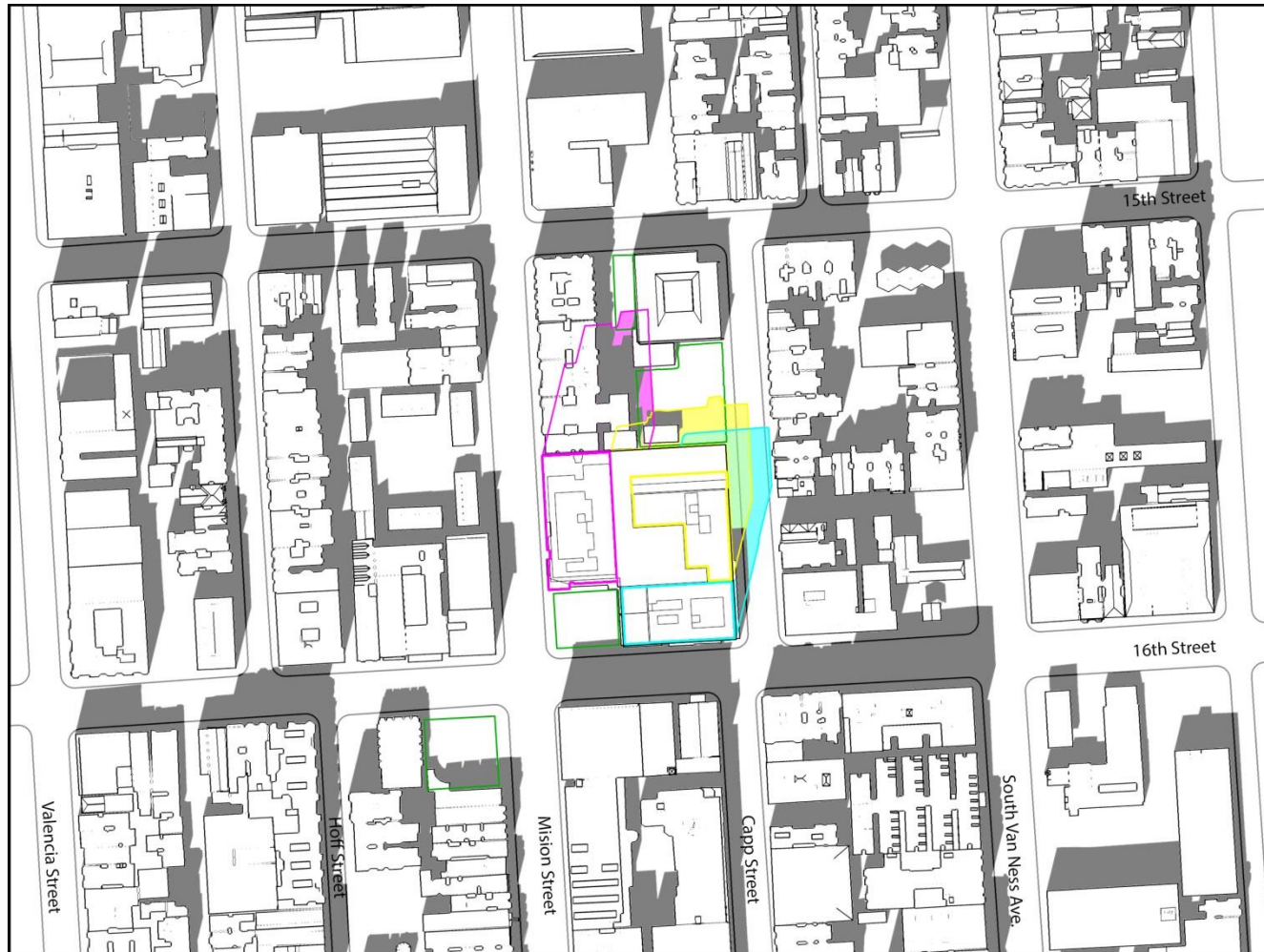




1979 Mission Street
December 20 12:45 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 1:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 2:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |

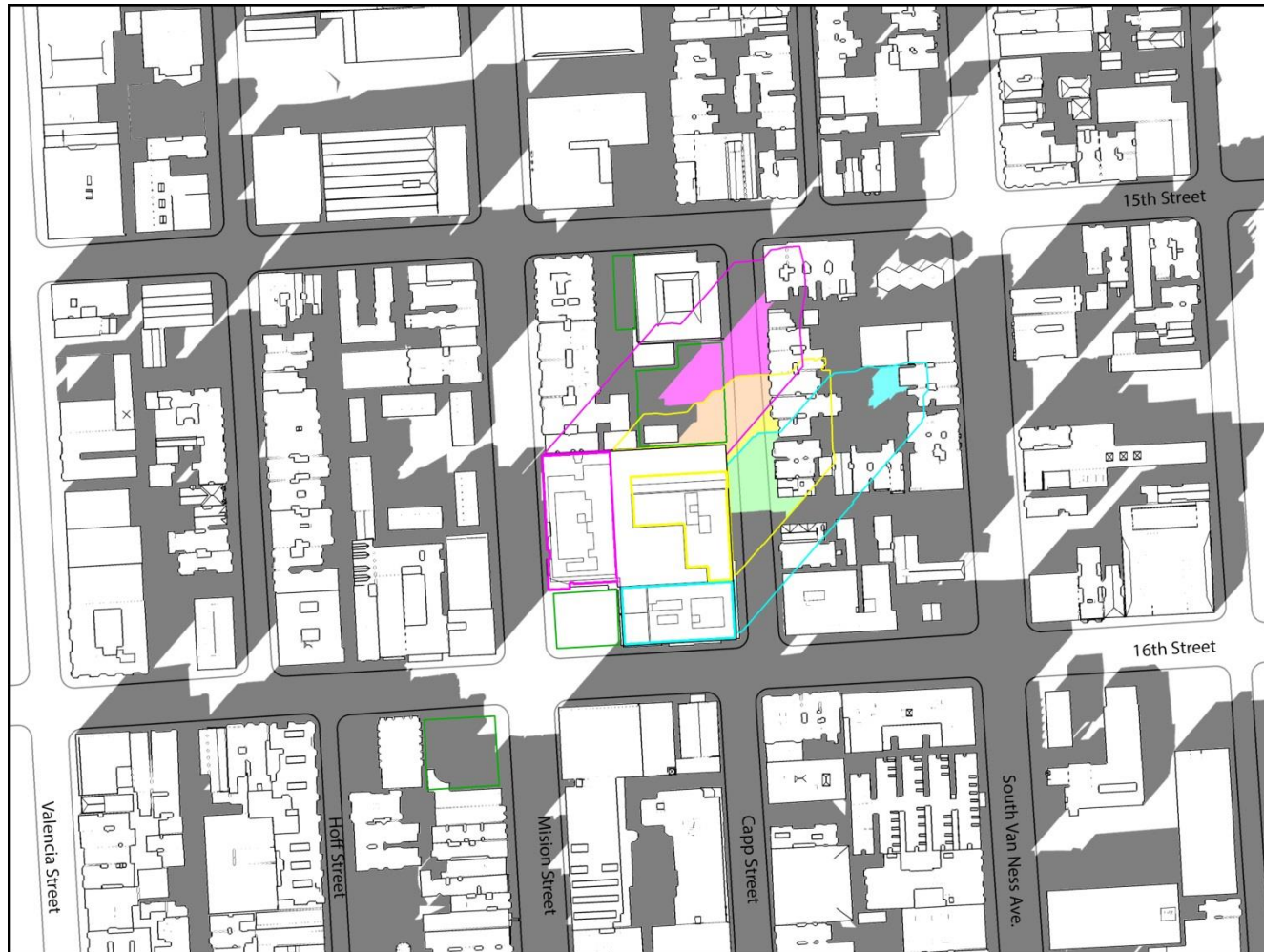




1979 Mission Street
December 20 2:15 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 3:00 pm

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 3:55 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows



EXHIBIT J.2

Summary of Results - 1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2
(Reduced Capp Component, 35-foot setback)

Summary of Results

cadp annualized net new shadow	6,257,142.47 Sq ft hrs
Annual Available Sunlight (AAS), based on City's AAS Factor	54,615,705.53 Sq ft hrs
Annual Shadow Increase as a Percentage of AAS	11.457%

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES								
Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
21-Jun	None	06.21 09:30:00	0:15:00	1,328.58	332.14	18.61	4.65	
		06.21 09:45:00	0:15:00	1,346.19	336.55	88.09	22.02	
		06.21 10:00:00	0:15:00	1,361.08	340.27	143.68	35.92	
		06.21 10:15:00	0:15:00	1,373.74	343.44	201.25	50.31	
		06.21 10:30:00	0:15:00	1,384.66	346.16	243.68	60.92	
		06.21 10:45:00	0:15:00	1,388.63	347.16	288.10	72.02	
		06.21 11:00:00	0:15:00	1,375.48	343.87	316.88	79.22	
		06.21 11:15:00	0:15:00	1,366.05	341.51	352.12	88.03	
		06.21 11:30:00	0:15:00	1,351.65	337.91	369.49	92.37	
		06.21 11:45:00	0:15:00	1,339.74	334.94	397.53	99.38	
		06.21 12:00:00	0:15:00	1,325.35	331.34	403.24	100.81	
		06.21 12:15:00	0:15:00	1,314.43	328.61	427.80	106.95	
		06.21 12:30:00	0:15:00	1,296.81	324.20	422.59	105.65	
		06.21 12:45:00	0:15:00	1,285.65	321.41	439.96	109.99	
		06.21 13:00:00	0:15:00	1,267.78	316.95	425.57	106.39	
		06.21 13:15:00	0:15:00	1,266.79	316.70	437.48	109.37	
		06.21 13:30:00	0:15:00	1,289.62	322.40	414.90	103.73	
		06.21 13:45:00	0:15:00	1,339.25	334.81	419.62	104.90	
		06.21 14:00:00	0:15:00	1,404.51	351.13	388.35	97.09	
		06.21 14:15:00	0:15:00	1,599.30	399.83	375.94	93.99	
		06.21 14:30:00	0:15:00	1,815.94	453.98	335.00	83.75	
		06.21 14:45:00	0:15:00	2,036.79	509.20	313.66	78.41	
		06.21 15:00:00	0:15:00	2,257.88	564.47	264.03	66.01	
		06.21 15:15:00	0:15:00	2,464.59	616.15	225.07	56.27	
		06.21 15:30:00	0:15:00	2,660.13	665.03	168.49	42.12	
		06.21 15:45:00	0:15:00	2,867.08	716.77	117.37	29.34	
		06.21 16:00:00	0:15:00	3,068.58	767.14	65.01	16.25	
		06.21 16:15:00	0:15:00	7:00:00	3,275.53	818.88	24.57	2,022.02
28-Jun	14-Jun	06.28 09:30:00	0:15:00	1,328.58	332.14	18.61	4.65	
		06.28 09:45:00	0:15:00	1,345.70	336.42	88.59	22.15	
		06.28 10:00:00	0:15:00	1,361.08	340.27	145.91	36.48	
		06.28 10:15:00	0:15:00	1,373.99	343.50	202.74	50.68	
		06.28 10:30:00	0:15:00	1,385.40	346.35	246.41	61.60	
		06.28 10:45:00	0:15:00	1,391.61	347.90	291.08	72.77	
		06.28 11:00:00	0:15:00	1,379.20	344.80	320.36	80.09	
		06.28 11:15:00	0:15:00	1,368.28	342.07	356.34	89.09	
		06.28 11:30:00	0:15:00	1,354.63	338.66	373.96	93.49	
		06.28 11:45:00	0:15:00	1,342.72	335.68	402.25	100.56	
		06.28 12:00:00	0:15:00	1,328.82	332.21	408.95	102.24	
		06.28 12:15:00	0:15:00	1,317.41	329.35	432.77	108.19	
		06.28 12:30:00	0:15:00	1,301.03	325.26	428.55	107.14	
		06.28 12:45:00	0:15:00	1,287.88	321.97	445.67	111.42	
		06.28 13:00:00	0:15:00	1,270.01	317.50	432.02	108.01	
		06.28 13:15:00	0:15:00	1,268.03	317.01	443.69	110.92	
		06.28 13:30:00	0:15:00	1,288.13	322.03	422.84	105.71	
		06.28 13:45:00	0:15:00	1,335.77	333.94	427.31	106.83	
		06.28 14:00:00	0:15:00	1,397.31	349.33	397.53	99.38	
		06.28 14:15:00	0:15:00	1,582.68	395.67	385.62	96.41	
		06.28 14:30:00	0:15:00	1,800.55	450.14	344.68	86.17	
		06.28 14:45:00	0:15:00	2,022.14	505.54	324.08	81.02	
		06.28 15:00:00	0:15:00	2,244.98	561.25	278.17	69.54	
		06.28 15:15:00	0:15:00	2,449.45	612.36	236.73	59.18	
		06.28 15:30:00	0:15:00	2,650.70	662.68	180.65	45.16	
		06.28 15:45:00	0:15:00	2,855.42	713.86	129.28	32.32	
		06.28 16:00:00	0:15:00	3,055.67	763.92	77.42	19.36	
		06.28 16:15:00	0:15:00	3,269.08	817.27	28.29	7.07	
		06.28 16:30:00	0:15:00	7:00:00	3,471.57	867.89	1.74	2,068.05
5-Jul	7-Jul	07.05 09:30:00	0:15:00	1,333.04	333.26	34.49	8.62	
		07.05 09:45:00	0:15:00	1,349.17	337.29	105.71	26.43	
		07.05 10:00:00	0:15:00	1,364.06	341.02	164.77	41.19	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		07.05 10:15:00	0:15:00	1,377.71	344.43	221.84	55.46	
		07.05 10:30:00	0:15:00	1,388.63	347.16	264.52	66.13	
		07.05 10:45:00	0:15:00	1,397.56	349.39	310.43	77.61	
		07.05 11:00:00	0:15:00	1,386.64	346.66	339.96	84.99	
		07.05 11:15:00	0:15:00	1,373.24	343.31	374.45	93.61	
		07.05 11:30:00	0:15:00	1,360.59	340.15	393.56	98.39	
		07.05 11:45:00	0:15:00	1,349.17	337.29	421.85	105.46	
		07.05 12:00:00	0:15:00	1,334.28	333.57	428.55	107.14	
		07.05 12:15:00	0:15:00	1,324.61	331.15	452.12	113.03	
		07.05 12:30:00	0:15:00	1,307.98	327.00	448.15	112.04	
		07.05 12:45:00	0:15:00	1,293.59	323.40	466.02	116.51	
		07.05 13:00:00	0:15:00	1,275.97	318.99	453.12	113.28	
		07.05 13:15:00	0:15:00	1,271.01	317.75	463.79	115.95	
		07.05 13:30:00	0:15:00	1,289.87	322.47	444.93	111.23	
		07.05 13:45:00	0:15:00	1,337.26	334.32	449.64	112.41	
		07.05 14:00:00	0:15:00	1,397.56	349.39	420.61	105.15	
		07.05 14:15:00	0:15:00	1,578.46	394.62	409.44	102.36	
		07.05 14:30:00	0:15:00	1,790.38	447.59	368.75	92.19	
		07.05 14:45:00	0:15:00	2,016.69	504.17	347.16	86.79	
		07.05 15:00:00	0:15:00	2,241.26	560.31	309.69	77.42	
		07.05 15:15:00	0:15:00	2,453.17	613.29	265.02	66.26	
		07.05 15:30:00	0:15:00	2,655.17	663.79	207.70	51.93	
		07.05 15:45:00	0:15:00	2,861.38	715.34	158.57	39.64	
		07.05 16:00:00	0:15:00	3,067.59	766.90	108.69	27.17	
		07.05 16:15:00	0:15:00	3,283.72	820.93	50.37	12.59	
		07.05 16:30:00	0:15:00	7:15:00 3,490.92	872.73	16.13	4.03	2,220.97
12-Jul	31-May	07.12 09:15:00	0:15:00	1,321.13	330.28	1.24	0.31	
		07.12 09:30:00	0:15:00	1,339.25	334.81	65.76	16.44	
		07.12 09:45:00	0:15:00	1,357.86	339.46	138.47	34.62	
		07.12 10:00:00	0:15:00	1,370.26	342.57	196.78	49.20	
		07.12 10:15:00	0:15:00	1,385.40	346.35	255.09	63.77	
		07.12 10:30:00	0:15:00	1,395.58	348.89	298.77	74.69	
		07.12 10:45:00	0:15:00	1,407.24	351.81	344.43	86.11	
		07.12 11:00:00	0:15:00	1,395.33	348.83	372.47	93.12	
		07.12 11:15:00	0:15:00	1,384.16	346.04	409.69	102.42	
		07.12 11:30:00	0:15:00	1,371.26	342.81	426.32	106.58	
		07.12 11:45:00	0:15:00	1,360.09	340.02	455.85	113.96	
		07.12 12:00:00	0:15:00	1,344.21	336.05	462.30	115.57	
		07.12 12:15:00	0:15:00	1,331.31	332.83	485.87	121.47	
		07.12 12:30:00	0:15:00	1,314.18	328.55	482.65	120.66	
		07.12 12:45:00	0:15:00	1,302.27	325.57	499.77	124.94	
		07.12 13:00:00	0:15:00	1,282.67	320.67	488.10	122.03	
		07.12 13:15:00	0:15:00	1,276.47	319.12	499.02	124.76	
		07.12 13:30:00	0:15:00	1,294.33	323.58	480.91	120.23	
		07.12 13:45:00	0:15:00	1,339.99	335.00	485.13	121.28	
		07.12 14:00:00	0:15:00	1,405.00	351.25	457.58	114.40	
		07.12 14:15:00	0:15:00	1,583.92	395.98	447.90	111.98	
		07.12 14:30:00	0:15:00	1,797.08	449.27	406.46	101.62	
		07.12 14:45:00	0:15:00	2,024.13	506.03	387.61	96.90	
		07.12 15:00:00	0:15:00	2,253.67	563.42	361.55	90.39	
		07.12 15:15:00	0:15:00	2,467.82	616.95	327.31	81.83	
		07.12 15:30:00	0:15:00	2,675.02	668.75	247.65	61.91	
		07.12 15:45:00	0:15:00	2,888.18	722.04	199.26	49.82	
		07.12 16:00:00	0:15:00	3,098.60	774.65	153.85	38.46	
		07.12 16:15:00	0:15:00	3,322.68	830.67	103.48	25.87	
		07.12 16:30:00	0:15:00	7:30:00 3,542.54	885.63	36.97	9.24	2,494.55
19-Jul	24-May	07.19 09:15:00	0:15:00	1,331.31	332.83	38.46	9.62	
		07.19 09:30:00	0:15:00	1,348.92	337.23	117.87	29.47	
		07.19 09:45:00	0:15:00	1,366.29	341.57	190.58	47.64	
		07.19 10:00:00	0:15:00	1,381.68	345.42	248.39	62.10	
		07.19 10:15:00	0:15:00	1,394.83	348.71	305.96	76.49	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		07.19 10:30:00	0:15:00	1,406.25	351.56	349.39	87.35	
		07.19 10:45:00	0:15:00	1,417.41	354.35	394.06	98.51	
		07.19 11:00:00	0:15:00	1,408.73	352.18	423.09	105.77	
		07.19 11:15:00	0:15:00	1,398.06	349.51	458.82	114.71	
		07.19 11:30:00	0:15:00	1,381.93	345.48	475.45	118.86	
		07.19 11:45:00	0:15:00	1,371.51	342.88	503.99	126.00	
		07.19 12:00:00	0:15:00	1,355.38	338.84	509.94	127.49	
		07.19 12:15:00	0:15:00	1,344.71	336.18	534.26	133.57	
		07.19 12:30:00	0:15:00	1,328.33	332.08	531.03	132.76	
		07.19 12:45:00	0:15:00	1,315.67	328.92	547.91	136.98	
		07.19 13:00:00	0:15:00	1,296.32	324.08	536.49	134.12	
		07.19 13:15:00	0:15:00	1,289.37	322.34	547.41	136.85	
		07.19 13:30:00	0:15:00	1,306.49	326.62	530.29	132.57	
		07.19 13:45:00	0:15:00	1,353.14	338.29	534.01	133.50	
		07.19 14:00:00	0:15:00	1,415.68	353.92	508.45	127.11	
		07.19 14:15:00	0:15:00	1,597.32	399.33	498.03	124.51	
		07.19 14:30:00	0:15:00	1,818.42	454.60	458.33	114.58	
		07.19 14:45:00	0:15:00	2,051.43	512.86	444.43	111.11	
		07.19 15:00:00	0:15:00	2,282.70	570.67	416.14	104.04	
		07.19 15:15:00	0:15:00	2,497.84	624.46	402.49	100.62	
		07.19 15:30:00	0:15:00	2,715.71	678.93	339.46	84.87	
		07.19 15:45:00	0:15:00	2,940.53	735.13	254.60	63.65	
		07.19 16:00:00	0:15:00	3,156.92	789.23	208.20	52.05	
		07.19 16:15:00	0:15:00	3,389.93	847.48	169.73	42.43	
		07.19 16:30:00	0:15:00	3,618.47	904.62	93.80	23.45	
		07.19 16:45:00	0:15:00	7:45:00	3,862.15	965.54	34.49	8.62
								2,892.77
26-Jul	17-May	07.26 09:00:00	0:15:00	1,340.24	335.06	18.36	4.59	
		07.26 09:15:00	0:15:00	1,344.71	336.18	109.18	27.30	
		07.26 09:30:00	0:15:00	1,362.82	340.71	187.60	46.90	
		07.26 09:45:00	0:15:00	1,380.93	345.23	260.06	65.01	
		07.26 10:00:00	0:15:00	1,395.33	348.83	318.87	79.72	
		07.26 10:15:00	0:15:00	1,407.49	351.87	374.95	93.74	
		07.26 10:30:00	0:15:00	1,419.89	354.97	415.89	103.97	
		07.26 10:45:00	0:15:00	1,429.82	357.46	460.31	115.08	
		07.26 11:00:00	0:15:00	1,425.60	356.40	487.36	121.84	
		07.26 11:15:00	0:15:00	1,414.68	353.67	522.35	130.59	
		07.26 11:30:00	0:15:00	1,399.55	349.89	539.22	134.81	
		07.26 11:45:00	0:15:00	1,387.14	346.78	567.01	141.75	
		07.26 12:00:00	0:15:00	1,370.51	342.63	573.47	143.37	
		07.26 12:15:00	0:15:00	1,356.62	339.15	596.05	149.01	
		07.26 12:30:00	0:15:00	1,340.24	335.06	593.32	148.33	
		07.26 12:45:00	0:15:00	1,328.08	332.02	609.70	152.42	
		07.26 13:00:00	0:15:00	1,307.98	327.00	598.53	149.63	
		07.26 13:15:00	0:15:00	1,300.78	325.20	609.45	152.36	
		07.26 13:30:00	0:15:00	1,319.15	329.79	593.81	148.45	
		07.26 13:45:00	0:15:00	1,367.29	341.82	598.28	149.57	
		07.26 14:00:00	0:15:00	1,434.78	358.70	573.47	143.37	
		07.26 14:15:00	0:15:00	1,627.84	406.96	562.80	140.70	
		07.26 14:30:00	0:15:00	1,855.89	463.97	523.09	130.77	
		07.26 14:45:00	0:15:00	2,088.40	522.10	515.65	128.91	
		07.26 15:00:00	0:15:00	2,324.39	581.10	479.17	119.79	
		07.26 15:15:00	0:15:00	2,550.20	637.55	463.79	115.95	
		07.26 15:30:00	0:15:00	2,777.25	694.31	437.98	109.50	
		07.26 15:45:00	0:15:00	3,009.52	752.38	406.46	101.62	
		07.26 16:00:00	0:15:00	3,242.03	810.51	282.39	70.60	
		07.26 16:15:00	0:15:00	3,484.97	871.24	238.97	59.74	
		07.26 16:30:00	0:15:00	3,731.13	932.78	192.31	48.08	
		07.26 16:45:00	0:15:00	3,991.19	997.80	102.98	25.75	
		07.26 17:00:00	0:15:00	8:15:00	4,396.66	1,099.16	17.12	4.28
								3,457.49
2-Aug	10-May	08.02 08:45:00	0:15:00	1,806.51	451.63	11.17	2.79	
		08.02 09:00:00	0:15:00	1,404.76	351.19	108.44	27.11	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		08.02 09:15:00	0:15:00	1,362.08	340.52	202.74	50.68	
		08.02 09:30:00	0:15:00	1,380.19	345.05	278.17	69.54	
		08.02 09:45:00	0:15:00	1,398.80	349.70	350.38	87.60	
		08.02 10:00:00	0:15:00	1,411.46	352.86	405.72	101.43	
		08.02 10:15:00	0:15:00	1,425.10	356.28	460.81	115.20	
		08.02 10:30:00	0:15:00	1,435.78	358.94	500.51	125.13	
		08.02 10:45:00	0:15:00	1,448.18	362.05	541.70	135.43	
		08.02 11:00:00	0:15:00	1,444.71	361.18	569.00	142.25	
		08.02 11:15:00	0:15:00	1,431.56	357.89	602.00	150.50	
		08.02 11:30:00	0:15:00	1,418.16	354.54	617.39	154.35	
		08.02 11:45:00	0:15:00	1,406.25	351.56	645.18	161.30	
		08.02 12:00:00	0:15:00	1,390.12	347.53	651.63	162.91	
		08.02 12:15:00	0:15:00	1,375.23	343.81	670.00	167.50	
		08.02 12:30:00	0:15:00	1,358.85	339.71	667.76	166.94	
		08.02 12:45:00	0:15:00	1,343.96	335.99	682.65	170.66	
		08.02 13:00:00	0:15:00	1,325.60	331.40	674.46	168.62	
		08.02 13:15:00	0:15:00	1,318.65	329.66	683.89	170.97	
		08.02 13:30:00	0:15:00	1,340.74	335.18	671.98	168.00	
		08.02 13:45:00	0:15:00	1,392.85	348.21	676.70	169.17	
		08.02 14:00:00	0:15:00	1,463.57	365.89	651.14	162.78	
		08.02 14:15:00	0:15:00	1,671.02	417.75	639.72	159.93	
		08.02 14:30:00	0:15:00	1,904.52	476.13	601.76	150.44	
		08.02 14:45:00	0:15:00	2,146.96	536.74	597.29	149.32	
		08.02 15:00:00	0:15:00	2,390.89	597.72	551.63	137.91	
		08.02 15:15:00	0:15:00	2,619.68	654.92	536.24	134.06	
		08.02 15:30:00	0:15:00	2,856.91	714.23	506.22	126.56	
		08.02 15:45:00	0:15:00	3,107.04	776.76	491.08	122.77	
		08.02 16:00:00	0:15:00	3,350.72	837.68	469.49	117.37	
		08.02 16:15:00	0:15:00	3,617.48	904.37	362.54	90.64	
		08.02 16:30:00	0:15:00	3,870.34	967.59	272.96	68.24	
		08.02 16:45:00	0:15:00	4,176.55	1,044.14	234.75	58.69	
		08.02 17:00:00	0:15:00	8:30:00 4,643.56	1,160.89	110.92	27.73	4,174.50
9-Aug	3-May	08.09 08:30:00	0:15:00	2,737.05	684.26	10.17	2.54	
		08.09 08:45:00	0:15:00	1,998.82	499.71	125.56	31.39	
		08.09 09:00:00	0:15:00	1,531.56	382.89	226.56	56.64	
		08.09 09:15:00	0:15:00	1,383.66	345.92	318.12	79.53	
		08.09 09:30:00	0:15:00	1,401.53	350.38	391.82	97.96	
		08.09 09:45:00	0:15:00	1,418.40	354.60	459.82	114.95	
		08.09 10:00:00	0:15:00	1,433.79	358.45	511.93	127.98	
		08.09 10:15:00	0:15:00	1,445.95	361.49	564.29	141.07	
		08.09 10:30:00	0:15:00	1,456.87	364.22	600.51	150.13	
		08.09 10:45:00	0:15:00	1,469.03	367.26	638.73	159.68	
		08.09 11:00:00	0:15:00	1,468.03	367.01	660.57	165.14	
		08.09 11:15:00	0:15:00	1,454.63	363.66	685.88	171.47	
		08.09 11:30:00	0:15:00	1,439.50	359.87	696.30	174.08	
		08.09 11:45:00	0:15:00	1,426.59	356.65	712.92	178.23	
		08.09 12:00:00	0:15:00	1,410.71	352.68	717.89	179.47	
		08.09 12:15:00	0:15:00	1,396.07	349.02	733.02	183.26	
		08.09 12:30:00	0:15:00	1,379.20	344.80	734.02	183.50	
		08.09 12:45:00	0:15:00	1,364.56	341.14	744.19	186.05	
		08.09 13:00:00	0:15:00	1,345.45	336.36	740.22	185.06	
		08.09 13:15:00	0:15:00	1,339.99	335.00	749.90	187.48	
		08.09 13:30:00	0:15:00	1,365.80	341.45	745.18	186.30	
		08.09 13:45:00	0:15:00	1,421.88	355.47	752.88	188.22	
		08.09 14:00:00	0:15:00	1,503.77	375.94	736.50	184.13	
		08.09 14:15:00	0:15:00	1,732.06	433.02	725.33	181.33	
		08.09 14:30:00	0:15:00	1,971.77	492.94	692.08	173.02	
		08.09 14:45:00	0:15:00	2,227.61	556.90	686.37	171.59	
		08.09 15:00:00	0:15:00	2,473.27	618.32	636.74	159.19	
		08.09 15:15:00	0:15:00	2,710.50	677.63	618.13	154.53	
		08.09 15:30:00	0:15:00	2,960.14	740.03	583.14	145.79	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSfHr	NewSF	NewSFHr	New SFHR Total/day	
		08.09 15:45:00	0:15:00		3,223.17	805.79	562.30	140.58	
		08.09 16:00:00	0:15:00		3,488.94	872.23	545.67	136.42	
		08.09 16:15:00	0:15:00		3,777.04	944.26	558.08	139.52	
		08.09 16:30:00	0:15:00		4,057.94	1,014.48	446.91	111.73	
		08.09 16:45:00	0:15:00		4,439.59	1,109.90	325.57	81.39	
		08.09 17:00:00	0:15:00		4,940.10	1,235.02	284.13	71.03	
		08.09 17:15:00	0:15:00	9:00:00	5,536.39	1,384.10	136.73	34.18	4,909.33
16-Aug	26-May	08.16 08:15:00	0:15:00		4,441.57	1,110.39	19.60	4.90	
		08.16 08:30:00	0:15:00		3,132.85	783.21	154.35	38.59	
		08.16 08:45:00	0:15:00		2,244.73	561.18	271.72	67.93	
		08.16 09:00:00	0:15:00		1,694.10	423.52	368.00	92.00	
		08.16 09:15:00	0:15:00		1,414.93	353.73	456.59	114.15	
		08.16 09:30:00	0:15:00		1,428.08	357.02	524.58	131.15	
		08.16 09:45:00	0:15:00		1,444.46	361.12	589.10	147.28	
		08.16 10:00:00	0:15:00		1,458.85	364.71	630.79	157.70	
		08.16 10:15:00	0:15:00		1,470.52	367.63	664.29	166.07	
		08.16 10:30:00	0:15:00		1,483.42	370.86	686.62	171.66	
		08.16 10:45:00	0:15:00		1,491.61	372.90	711.93	177.98	
		08.16 11:00:00	0:15:00		1,493.10	373.27	727.81	181.95	
		08.16 11:15:00	0:15:00		1,481.43	370.36	748.91	187.23	
		08.16 11:30:00	0:15:00		1,466.55	366.64	758.34	189.58	
		08.16 11:45:00	0:15:00		1,449.92	362.48	776.70	194.17	
		08.16 12:00:00	0:15:00		1,434.29	358.57	779.92	194.98	
		08.16 12:15:00	0:15:00		1,418.40	354.60	795.06	198.77	
		08.16 12:30:00	0:15:00		1,401.28	350.32	795.31	198.83	
		08.16 12:45:00	0:15:00		1,385.65	346.41	806.48	201.62	
		08.16 13:00:00	0:15:00		1,367.53	341.88	802.75	200.69	
		08.16 13:15:00	0:15:00		1,364.81	341.20	812.93	203.23	
		08.16 13:30:00	0:15:00		1,395.08	348.77	810.94	202.74	
		08.16 13:45:00	0:15:00		1,455.38	363.85	816.65	204.16	
		08.16 14:00:00	0:15:00		1,570.52	392.63	801.02	200.25	
		08.16 14:15:00	0:15:00		1,805.51	451.38	792.33	198.08	
		08.16 14:30:00	0:15:00		2,056.39	514.10	768.01	192.00	
		08.16 14:45:00	0:15:00		2,326.12	581.53	760.82	190.20	
		08.16 15:00:00	0:15:00		2,575.76	643.94	724.59	181.15	
		08.16 15:15:00	0:15:00		2,824.65	706.16	704.98	176.25	
		08.16 15:30:00	0:15:00		3,084.71	771.18	668.26	167.07	
		08.16 15:45:00	0:15:00		3,365.11	841.28	639.97	159.99	
		08.16 16:00:00	0:15:00		3,650.23	912.56	631.04	157.76	
		08.16 16:15:00	0:15:00		3,958.68	989.67	695.55	173.89	
		08.16 16:30:00	0:15:00		4,287.97	1,071.99	703.99	176.00	
		08.16 16:45:00	0:15:00		4,762.18	1,190.54	597.29	149.32	
		08.16 17:00:00	0:15:00		5,309.34	1,327.34	391.58	97.89	
		08.16 17:15:00	0:15:00		5,967.42	1,491.86	374.95	93.74	
		08.16 17:30:00	0:15:00	9:30:00	6,746.85	1,686.71	156.58	39.15	5,980.08
23-Aug	19-Apr	08.23 08:00:00	0:15:00		7,258.53	1,814.63	43.67	10.92	
		08.23 08:15:00	0:15:00		5,200.90	1,300.23	201.99	50.50	
		08.23 08:30:00	0:15:00		3,644.77	911.19	335.74	83.94	
		08.23 08:45:00	0:15:00		2,559.13	639.78	449.39	112.35	
		08.23 09:00:00	0:15:00		1,875.74	468.94	539.47	134.87	
		08.23 09:15:00	0:15:00		1,482.92	370.73	606.22	151.56	
		08.23 09:30:00	0:15:00		1,461.09	365.27	645.43	161.36	
		08.23 09:45:00	0:15:00		1,475.97	368.99	684.14	171.04	
		08.23 10:00:00	0:15:00		1,489.13	372.28	712.43	178.11	
		08.23 10:15:00	0:15:00		1,501.78	375.45	742.21	185.55	
		08.23 10:30:00	0:15:00		1,508.98	377.24	763.05	190.76	
		08.23 10:45:00	0:15:00		1,519.40	379.85	787.37	196.84	
		08.23 11:00:00	0:15:00		1,527.84	381.96	801.02	200.25	
		08.23 11:15:00	0:15:00		1,510.47	377.62	821.36	205.34	
		08.23 11:30:00	0:15:00		1,491.61	372.90	829.80	207.45	
		08.23 11:45:00	0:15:00		1,475.48	368.87	846.68	211.67	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		08.23 12:00:00	0:15:00	1,458.60	364.65	850.89	212.72	
		08.23 12:15:00	0:15:00	1,442.23	360.56	864.79	216.20	
		08.23 12:30:00	0:15:00	1,424.61	356.15	865.53	216.38	
		08.23 12:45:00	0:15:00	1,408.73	352.18	876.45	219.11	
		08.23 13:00:00	0:15:00	1,390.61	347.65	873.72	218.43	
		08.23 13:15:00	0:15:00	1,391.36	347.84	885.39	221.35	
		08.23 13:30:00	0:15:00	1,430.32	357.58	883.40	220.85	
		08.23 13:45:00	0:15:00	1,496.82	374.21	890.60	222.65	
		08.23 14:00:00	0:15:00	1,653.65	413.41	872.98	218.25	
		08.23 14:15:00	0:15:00	1,904.52	476.13	862.81	215.70	
		08.23 14:30:00	0:15:00	2,166.81	541.70	873.23	218.31	
		08.23 14:45:00	0:15:00	2,440.77	610.19	838.98	209.75	
		08.23 15:00:00	0:15:00	2,698.34	674.59	800.27	200.07	
		08.23 15:15:00	0:15:00	2,967.33	741.83	777.94	194.49	
		08.23 15:30:00	0:15:00	3,241.29	810.32	746.42	186.61	
		08.23 15:45:00	0:15:00	3,544.27	886.07	722.35	180.59	
		08.23 16:00:00	0:15:00	3,855.95	963.99	770.25	192.56	
		08.23 16:15:00	0:15:00	4,192.18	1,048.05	914.17	228.54	
		08.23 16:30:00	0:15:00	4,593.19	1,148.30	990.85	247.71	
		08.23 16:45:00	0:15:00	5,131.91	1,282.98	1,001.27	250.32	
		08.23 17:00:00	0:15:00	5,747.32	1,436.83	742.21	185.55	
		08.23 17:15:00	0:15:00	6,501.93	1,625.48	536.49	134.12	
		08.23 17:30:00	0:15:00	7,387.81	1,846.95	498.53	124.63	
		08.23 17:45:00	0:15:00	9:30:00 8,552.86	2,138.22	174.70	43.67	7,231.04
30-Aug	12-Apr	08.30 07:37:48	0:03:36	13,319.25	799.16	2.48	0.15	
		08.30 07:45:00	0:11:24	12,014.00	2,282.66	73.70	14.00	
		08.30 08:00:00	0:15:00	8,459.31	2,114.83	255.84	63.96	
		08.30 08:15:00	0:15:00	6,057.75	1,514.44	424.33	106.08	
		08.30 08:30:00	0:15:00	4,266.38	1,066.60	538.23	134.56	
		08.30 08:45:00	0:15:00	2,949.47	737.37	602.50	150.63	
		08.30 09:00:00	0:15:00	2,090.63	522.66	654.61	163.65	
		08.30 09:15:00	0:15:00	1,603.03	400.76	703.00	175.75	
		08.30 09:30:00	0:15:00	1,502.77	375.69	740.22	185.06	
		08.30 09:45:00	0:15:00	1,512.20	378.05	775.71	193.93	
		08.30 10:00:00	0:15:00	1,522.38	380.59	801.26	200.32	
		08.30 10:15:00	0:15:00	1,538.26	384.57	828.81	207.20	
		08.30 10:30:00	0:15:00	1,545.70	386.43	847.67	211.92	
		08.30 10:45:00	0:15:00	1,552.90	388.23	870.75	217.69	
		08.30 11:00:00	0:15:00	1,556.87	389.22	883.15	220.79	
		08.30 11:15:00	0:15:00	1,539.75	384.94	901.52	225.38	
		08.30 11:30:00	0:15:00	1,518.90	379.73	909.95	227.49	
		08.30 11:45:00	0:15:00	1,501.04	375.26	925.34	231.33	
		08.30 12:00:00	0:15:00	1,483.42	370.86	929.56	232.39	
		08.30 12:15:00	0:15:00	1,466.79	366.70	942.71	235.68	
		08.30 12:30:00	0:15:00	1,449.42	362.36	943.45	235.86	
		08.30 12:45:00	0:15:00	1,432.80	358.20	955.36	238.84	
		08.30 13:00:00	0:15:00	1,416.17	354.04	953.38	238.35	
		08.30 13:15:00	0:15:00	1,421.63	355.41	967.27	241.82	
		08.30 13:30:00	0:15:00	1,469.03	367.26	965.79	241.45	
		08.30 13:45:00	0:15:00	1,542.23	385.56	973.97	243.49	
		08.30 14:00:00	0:15:00	1,746.21	436.55	952.39	238.10	
		08.30 14:15:00	0:15:00	2,015.44	503.86	951.39	237.85	
		08.30 14:30:00	0:15:00	2,299.08	574.77	1,003.75	250.94	
		08.30 14:45:00	0:15:00	2,576.50	644.13	997.05	249.26	
		08.30 15:00:00	0:15:00	2,844.01	711.00	958.09	239.52	
		08.30 15:15:00	0:15:00	3,138.31	784.58	920.38	230.09	
		08.30 15:30:00	0:15:00	3,436.33	859.08	840.97	210.24	
		08.30 15:45:00	0:15:00	3,760.41	940.10	824.59	206.15	
		08.30 16:00:00	0:15:00	4,094.41	1,023.60	1,013.18	253.30	
		08.30 16:15:00	0:15:00	4,477.30	1,119.33	1,247.68	311.92	
		08.30 16:30:00	0:15:00	4,953.50	1,238.37	1,424.36	356.09	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		08.30 16:45:00	0:15:00	5,552.27	1,388.07	1,458.60	364.65	
		08.30 17:00:00	0:15:00	6,249.07	1,562.27	1,132.79	283.20	
		08.30 17:15:00	0:15:00	7,109.39	1,777.35	902.26	225.57	
		08.30 17:30:00	0:15:00	8,155.83	2,038.96	800.02	200.01	
		08.30 17:45:00	0:15:00	9,525.59	2,381.40	633.02	158.26	
		08.30 18:00:00	0:15:00	10:30:00	11,519.95	2,879.99	96.78	24.19
6-Sep	5-Apr	09.06 07:44:24	0:07:48	13,675.10	1,777.76	200.25	26.03	
		09.06 08:00:00	0:15:00	9,939.25	2,484.81	404.48	101.12	
		09.06 08:15:00	0:15:00	7,076.64	1,769.16	535.75	133.94	
		09.06 08:30:00	0:15:00	5,002.63	1,250.66	642.20	160.55	
		09.06 08:45:00	0:15:00	3,434.84	858.71	712.43	178.11	
		09.06 09:00:00	0:15:00	2,375.51	593.88	762.06	190.51	
		09.06 09:15:00	0:15:00	1,792.11	448.03	806.48	201.62	
		09.06 09:30:00	0:15:00	1,544.96	386.24	839.73	209.93	
		09.06 09:45:00	0:15:00	1,553.89	388.47	874.47	218.62	
		09.06 10:00:00	0:15:00	1,562.08	390.52	897.55	224.39	
		09.06 10:15:00	0:15:00	1,573.74	393.44	924.35	231.09	
		09.06 10:30:00	0:15:00	1,581.19	395.30	939.98	235.00	
		09.06 10:45:00	0:15:00	1,591.61	397.90	961.82	240.45	
		09.06 11:00:00	0:15:00	1,595.09	398.77	972.98	243.25	
		09.06 11:15:00	0:15:00	1,577.22	394.30	989.61	247.40	
		09.06 11:30:00	0:15:00	1,555.38	388.85	997.80	249.45	
		09.06 11:45:00	0:15:00	1,538.26	384.57	1,012.93	253.23	
		09.06 12:00:00	0:15:00	1,520.14	380.04	1,017.15	254.29	
		09.06 12:15:00	0:15:00	1,502.77	375.69	1,030.55	257.64	
		09.06 12:30:00	0:15:00	1,484.66	371.17	1,031.79	257.95	
		09.06 12:45:00	0:15:00	1,467.79	366.95	1,042.71	260.68	
		09.06 13:00:00	0:15:00	1,450.17	362.54	1,040.73	260.18	
		09.06 13:15:00	0:15:00	1,468.03	367.01	1,057.60	264.40	
		09.06 13:30:00	0:15:00	1,519.65	379.91	1,057.35	264.34	
		09.06 13:45:00	0:15:00	1,607.99	402.00	1,062.07	265.52	
		09.06 14:00:00	0:15:00	1,858.12	464.53	1,039.98	260.00	
		09.06 14:15:00	0:15:00	2,141.75	535.44	1,064.55	266.14	
		09.06 14:30:00	0:15:00	2,439.03	609.76	1,148.67	287.17	
		09.06 14:45:00	0:15:00	2,730.11	682.53	1,192.10	298.02	
		09.06 15:00:00	0:15:00	3,024.16	756.04	1,201.52	300.38	
		09.06 15:15:00	0:15:00	3,340.79	835.20	1,231.05	307.76	
		09.06 15:30:00	0:15:00	3,660.90	915.23	1,209.96	302.49	
		09.06 15:45:00	0:15:00	4,018.48	1,004.62	1,240.98	310.25	
		09.06 16:00:00	0:15:00	4,379.29	1,094.82	1,465.06	366.26	
		09.06 16:15:00	0:15:00	4,820.74	1,205.19	1,752.41	438.10	
		09.06 16:30:00	0:15:00	5,376.34	1,344.09	2,032.82	508.20	
		09.06 16:45:00	0:15:00	6,033.43	1,508.36	1,853.16	463.29	
		09.06 17:00:00	0:15:00	6,825.76	1,706.44	1,526.60	381.65	
		09.06 17:15:00	0:15:00	7,805.94	1,951.49	1,321.63	330.41	
		09.06 17:30:00	0:15:00	9,035.50	2,258.88	1,215.67	303.92	
		09.06 17:45:00	0:15:00	10,726.62	2,681.66	936.75	234.19	
		09.06 18:00:00	0:15:00	10:22:48	12,473.57	3,118.39	603.99	151.00
13-Sep	29-Mar	09.13 07:50:24	0:04:48	13,536.13	1,082.89	231.27	18.50	
		09.13 08:00:00	0:12:36	11,474.53	2,409.65	359.56	75.51	
		09.13 08:15:00	0:15:00	8,196.03	2,049.01	570.74	142.68	
		09.13 08:30:00	0:15:00	5,813.32	1,453.33	721.61	180.40	
		09.13 08:45:00	0:15:00	4,018.73	1,004.68	813.92	203.48	
		09.13 09:00:00	0:15:00	2,739.29	684.82	864.05	216.01	
		09.13 09:15:00	0:15:00	2,000.80	500.20	908.96	227.24	
		09.13 09:30:00	0:15:00	1,610.97	402.74	941.72	235.43	
		09.13 09:45:00	0:15:00	1,602.03	400.51	975.22	243.80	
		09.13 10:00:00	0:15:00	1,608.48	402.12	998.04	249.51	
		09.13 10:15:00	0:15:00	1,617.91	404.48	1,022.61	255.65	
		09.13 10:30:00	0:15:00	1,621.39	405.35	1,038.00	259.50	
		09.13 10:45:00	0:15:00	1,628.09	407.02	1,058.10	264.52	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		09.13 11:00:00	0:15:00	1,629.33	407.33	1,069.76	267.44	
		09.13 11:15:00	0:15:00	1,612.95	403.24	1,086.39	271.60	
		09.13 11:30:00	0:15:00	1,588.39	397.10	1,092.34	273.09	
		09.13 11:45:00	0:15:00	1,571.51	392.88	1,108.22	277.06	
		09.13 12:00:00	0:15:00	1,549.18	387.29	1,111.45	277.86	
		09.13 12:15:00	0:15:00	1,534.29	383.57	1,124.60	281.15	
		09.13 12:30:00	0:15:00	1,512.45	378.11	1,125.84	281.46	
		09.13 12:45:00	0:15:00	1,497.07	374.27	1,138.99	284.75	
		09.13 13:00:00	0:15:00	1,479.95	369.99	1,138.99	284.75	
		09.13 13:15:00	0:15:00	1,510.47	377.62	1,155.87	288.97	
		09.13 13:30:00	0:15:00	1,574.24	393.56	1,158.60	289.65	
		09.13 13:45:00	0:15:00	1,710.97	427.74	1,158.10	289.53	
		09.13 14:00:00	0:15:00	126.00	497.78	1,134.77	283.69	
		09.13 14:15:00	0:15:00	2,295.85	573.96	1,231.55	307.89	
		09.13 14:30:00	0:15:00	2,609.51	652.38	1,326.09	331.52	
		09.13 14:45:00	0:15:00	2,915.97	728.99	1,424.36	356.09	
		09.13 15:00:00	0:15:00	3,227.14	806.79	1,499.55	374.89	
		09.13 15:15:00	0:15:00	3,572.07	893.02	1,600.30	400.07	
		09.13 15:30:00	0:15:00	3,929.15	982.29	1,666.80	416.70	
		09.13 15:45:00	0:15:00	4,310.05	1,077.51	1,966.06	491.52	
		09.13 16:00:00	0:15:00	4,718.75	1,179.69	2,253.42	563.35	
		09.13 16:15:00	0:15:00	5,221.99	1,305.50	2,614.97	653.74	
		09.13 16:30:00	0:15:00	5,841.86	1,460.47	2,611.74	652.94	
		09.13 16:45:00	0:15:00	6,591.01	1,647.75	2,238.78	559.69	
		09.13 17:00:00	0:15:00	7,484.84	1,871.21	1,897.82	474.46	
		09.13 17:15:00	0:15:00	8,609.19	2,152.30	1,765.07	441.27	
		09.13 17:30:00	0:15:00	10,070.27	2,517.57	1,539.75	384.94	
		09.13 17:45:00	0:15:00	11,841.29	2,960.32	1,278.70	319.67	
		09.13 18:00:00	0:15:00	13,307.09	3,326.77	870.25	217.56	
		09.13 18:15:00	0:10:48	14,041.36	2,527.45	385.87	69.46	
		09.13 18:21:00	0:03:00	10:31:12 14,396.21	719.81	181.89	9.10	13,248.07
20-Sep	22-Mar	09.20 07:57:00	0:01:12	13,188.48	263.77	126.31	2.53	
		09.20 08:00:00	0:09:00	12,572.83	1,885.92	191.57	28.74	
		09.20 08:15:00	0:15:00	9,384.65	2,346.16	491.08	122.77	
		09.20 08:30:00	0:15:00	6,715.34	1,678.83	740.72	185.18	
		09.20 08:45:00	0:15:00	4,683.76	1,170.94	886.88	221.72	
		09.20 09:00:00	0:15:00	3,164.86	791.22	971.49	242.87	
		09.20 09:15:00	0:15:00	2,249.20	562.30	1,015.91	253.98	
		09.20 09:30:00	0:15:00	1,733.05	433.26	1,047.67	261.92	
		09.20 09:45:00	0:15:00	1,655.14	413.78	1,079.19	269.80	
		09.20 10:00:00	0:15:00	1,661.59	415.40	1,101.03	275.26	
		09.20 10:15:00	0:15:00	1,666.55	416.64	1,126.34	281.58	
		09.20 10:30:00	0:15:00	1,666.30	416.58	1,141.23	285.31	
		09.20 10:45:00	0:15:00	1,671.51	417.88	1,161.82	290.46	
		09.20 11:00:00	0:15:00	1,672.01	418.00	1,171.75	292.94	
		09.20 11:15:00	0:15:00	1,654.14	413.54	1,190.11	297.53	
		09.20 11:30:00	0:15:00	1,627.10	406.77	1,196.07	299.02	
		09.20 11:45:00	0:15:00	1,607.24	401.81	1,211.70	302.93	
		09.20 12:00:00	0:15:00	1,586.90	396.72	1,214.43	303.61	
		09.20 12:15:00	0:15:00	1,569.28	392.32	1,227.58	306.90	
		09.20 12:30:00	0:15:00	1,550.91	387.73	1,229.81	307.45	
		09.20 12:45:00	0:15:00	1,535.28	383.82	1,241.97	310.49	
		09.20 13:00:00	0:15:00	1,523.37	380.84	1,246.44	311.61	
		09.20 13:15:00	0:15:00	1,566.05	391.51	1,265.79	316.45	
		09.20 13:30:00	0:15:00	1,635.04	408.76	1,267.04	316.76	
		09.20 13:45:00	0:15:00	1,835.29	458.82	1,260.83	315.21	
		09.20 14:00:00	0:15:00	2,134.31	533.58	1,252.89	313.22	
		09.20 14:15:00	0:15:00	2,465.09	616.27	1,424.11	356.03	
		09.20 14:30:00	0:15:00	2,785.94	696.49	1,559.60	389.90	
		09.20 14:45:00	0:15:00	3,122.43	780.61	1,725.86	431.46	
		09.20 15:00:00	0:15:00	3,467.10	866.78	1,869.04	467.26	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		09.20 15:15:00	0:15:00	3,844.28	961.07	2,058.37	514.59	
		09.20 15:30:00	0:15:00	4,231.14	1,057.79	2,334.31	583.58	
		09.20 15:45:00	0:15:00	4,644.31	1,161.08	2,853.93	713.48	
		09.20 16:00:00	0:15:00	5,096.93	1,274.23	3,270.07	817.52	
		09.20 16:15:00	0:15:00	5,689.00	1,422.25	3,757.43	939.36	
		09.20 16:30:00	0:15:00	6,359.99	1,590.00	3,288.44	822.11	
		09.20 16:45:00	0:15:00	7,200.21	1,800.05	2,810.51	702.63	
		09.20 17:00:00	0:15:00	8,228.04	2,057.01	2,489.65	622.41	
		09.20 17:15:00	0:15:00	9,532.29	2,383.07	2,267.56	566.89	
		09.20 17:30:00	0:15:00	11,343.51	2,835.88	1,927.60	481.90	
		09.20 17:45:00	0:15:00	12,582.01	3,145.50	1,544.71	386.18	
		09.20 18:00:00	0:12:36	13,441.34	2,822.68	1,035.02	217.35	
		09.20 18:09:36	0:04:48	10:12:36	13,899.92	1,111.99	56.94	15,785.79
27-Sep	15-Mar	09.27 08:03:00	0:06:00	12,756.95	1,275.70	152.86	15.29	
		09.27 08:15:00	0:13:12	10,524.13	2,315.31	339.71	74.74	
		09.27 08:30:00	0:15:00	7,833.73	1,958.43	684.64	171.16	
		09.27 08:45:00	0:15:00	5,483.29	1,370.82	941.22	235.31	
		09.27 09:00:00	0:15:00	3,745.52	936.38	1,073.73	268.43	
		09.27 09:15:00	0:15:00	2,561.61	640.40	1,130.06	282.52	
		09.27 09:30:00	0:15:00	1,907.75	476.94	1,160.83	290.21	
		09.27 09:45:00	0:15:00	1,713.45	428.36	1,191.85	297.96	
		09.27 10:00:00	0:15:00	1,712.95	428.24	1,212.44	303.11	
		09.27 10:15:00	0:15:00	1,713.20	428.30	1,235.27	308.82	
		09.27 10:30:00	0:15:00	1,714.44	428.61	1,249.42	312.35	
		09.27 10:45:00	0:15:00	1,717.17	429.29	1,268.77	317.19	
		09.27 11:00:00	0:15:00	1,716.18	429.05	1,277.46	319.36	
		09.27 11:15:00	0:15:00	1,699.06	424.76	1,295.82	323.96	
		09.27 11:30:00	0:15:00	1,671.02	417.75	1,303.76	325.94	
		09.27 11:45:00	0:15:00	1,648.44	412.11	1,320.64	330.16	
		09.27 12:00:00	0:15:00	1,628.83	407.21	1,322.12	330.53	
		09.27 12:15:00	0:15:00	1,610.97	402.74	1,337.76	334.44	
		09.27 12:30:00	0:15:00	1,590.62	397.65	1,341.48	335.37	
		09.27 12:45:00	0:15:00	1,573.25	393.31	1,355.62	338.91	
		09.27 13:00:00	0:15:00	1,566.55	391.64	1,364.81	341.20	
		09.27 13:15:00	0:15:00	1,622.38	405.60	1,383.42	345.85	
		09.27 13:30:00	0:15:00	1,697.82	424.45	1,384.16	346.04	
		09.27 13:45:00	0:15:00	1,957.38	489.35	1,371.51	342.88	
		09.27 14:00:00	0:15:00	2,270.04	567.51	1,406.00	351.50	
		09.27 14:15:00	0:15:00	2,607.52	651.88	1,651.66	412.92	
		09.27 14:30:00	0:15:00	2,936.56	734.14	1,860.11	465.03	
		09.27 14:45:00	0:15:00	3,288.44	822.11	2,107.51	526.88	
		09.27 15:00:00	0:15:00	3,656.44	914.11	2,344.24	586.06	
		09.27 15:15:00	0:15:00	4,059.18	1,014.79	2,652.93	663.23	
		09.27 15:30:00	0:15:00	4,488.97	1,122.24	3,217.96	804.49	
		09.27 15:45:00	0:15:00	4,945.31	1,236.33	3,897.63	974.41	
		09.27 16:00:00	0:15:00	5,479.07	1,369.77	4,564.16	1,141.04	
		09.27 16:15:00	0:15:00	6,120.53	1,530.13	4,505.59	1,126.40	
		09.27 16:30:00	0:15:00	6,914.10	1,728.53	3,922.95	980.74	
		09.27 16:45:00	0:15:00	7,891.05	1,972.76	3,431.86	857.97	
		09.27 17:00:00	0:15:00	9,112.93	2,278.23	3,021.93	755.48	
		09.27 17:15:00	0:15:00	10,705.28	2,676.32	2,694.87	673.72	
		09.27 17:30:00	0:15:00	12,025.42	3,006.36	2,242.00	560.50	
		09.27 17:45:00	0:13:48	13,057.46	3,003.22	1,483.92	341.30	
		09.27 17:58:11	0:06:36	9:54:36	13,745.57	1,512.01	98.95	18,212.31
4-Oct	8-Mar	10.04 08:09:36	0:02:24	12,400.37	496.02	180.90	7.24	
		10.04 08:15:00	0:10:12	11,439.79	1,944.77	253.36	43.07	
		10.04 08:30:00	0:15:00	8,955.10	2,238.78	580.41	145.10	
		10.04 08:45:00	0:15:00	6,376.86	1,594.22	972.73	243.18	
		10.04 09:00:00	0:15:00	4,378.79	1,094.70	1,179.94	294.98	
		10.04 09:15:00	0:15:00	2,991.90	747.98	1,250.91	312.73	
		10.04 09:30:00	0:15:00	2,144.73	536.18	1,282.42	320.61	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		10.04 09:45:00	0:15:00	1,779.71	444.93	1,311.45	327.86	
		10.04 10:00:00	0:15:00	1,771.77	442.94	1,329.82	332.45	
		10.04 10:15:00	0:15:00	1,771.02	442.76	1,352.15	338.04	
		10.04 10:30:00	0:15:00	1,765.81	441.45	1,363.56	340.89	
		10.04 10:45:00	0:15:00	1,765.56	441.39	1,382.92	345.73	
		10.04 11:00:00	0:15:00	1,764.07	441.02	1,391.11	347.78	
		10.04 11:15:00	0:15:00	1,746.45	436.61	1,409.22	352.31	
		10.04 11:30:00	0:15:00	1,717.67	429.42	1,415.92	353.98	
		10.04 11:45:00	0:15:00	1,694.59	423.65	1,434.29	358.57	
		10.04 12:00:00	0:15:00	1,672.01	418.00	1,439.25	359.81	
		10.04 12:15:00	0:15:00	1,653.15	413.29	1,455.38	363.85	
		10.04 12:30:00	0:15:00	1,631.07	407.77	1,459.85	364.96	
		10.04 12:45:00	0:15:00	1,615.18	403.80	1,474.98	368.75	
		10.04 13:00:00	0:15:00	1,612.95	403.24	1,489.87	372.47	
		10.04 13:15:00	0:15:00	1,678.71	419.68	1,510.47	377.62	
		10.04 13:30:00	0:15:00	1,789.14	447.28	1,502.53	375.63	
		10.04 13:45:00	0:15:00	2,083.93	520.98	1,488.13	372.03	
		10.04 14:00:00	0:15:00	2,408.76	602.19	1,637.52	409.38	
		10.04 14:15:00	0:15:00	2,744.25	686.06	1,950.68	487.67	
		10.04 14:30:00	0:15:00	3,086.69	771.67	2,242.50	560.63	
		10.04 14:45:00	0:15:00	3,452.21	863.05	2,590.15	647.54	
		10.04 15:00:00	0:15:00	3,837.83	959.46	2,940.53	735.13	
		10.04 15:15:00	0:15:00	4,256.45	1,064.11	3,536.58	884.15	
		10.04 15:30:00	0:15:00	4,712.30	1,178.08	4,290.20	1,072.55	
		10.04 15:45:00	0:15:00	5,214.55	1,303.64	5,170.13	1,292.53	
		10.04 16:00:00	0:15:00	5,788.26	1,447.07	5,648.06	1,412.02	
		10.04 16:15:00	0:15:00	6,505.40	1,626.35	5,140.60	1,285.15	
		10.04 16:30:00	0:15:00	7,422.30	1,855.58	4,506.34	1,126.58	
		10.04 16:45:00	0:15:00	8,620.60	2,155.15	3,857.68	964.42	
		10.04 17:00:00	0:15:00	10,140.75	2,535.19	3,335.58	833.90	
		10.04 17:15:00	0:15:00	11,603.32	2,900.83	2,749.71	687.43	
		10.04 17:30:00	0:16:12	12,684.99	3,424.95	1,989.89	537.27	
		10.04 17:47:23	0:08:24	9:28:48	14,056.99	1,967.98	616.64	86.33
								20,442.30
11-Oct	1-Mar	10.11 08:16:11	0:07:12	12,039.32	1,444.72	324.08	38.89	
		10.11 08:30:00	0:14:24	9,887.39	2,372.97	418.13	100.35	
		10.11 08:45:00	0:15:00	7,290.54	1,822.64	942.21	235.55	
		10.11 09:00:00	0:15:00	5,059.95	1,264.99	1,238.00	309.50	
		10.11 09:15:00	0:15:00	3,428.14	857.04	1,372.75	343.19	
		10.11 09:30:00	0:15:00	2,408.51	602.13	1,407.24	351.81	
		10.11 09:45:00	0:15:00	1,896.58	474.15	1,437.26	359.32	
		10.11 10:00:00	0:15:00	1,835.29	458.82	1,453.89	363.47	
		10.11 10:15:00	0:15:00	1,831.07	457.77	1,475.23	368.81	
		10.11 10:30:00	0:15:00	1,825.36	456.34	1,486.40	371.60	
		10.11 10:45:00	0:15:00	1,820.15	455.04	1,504.02	376.00	
		10.11 11:00:00	0:15:00	1,815.69	453.92	1,511.96	377.99	
		10.11 11:15:00	0:15:00	1,797.57	449.39	1,529.82	382.46	
		10.11 11:30:00	0:15:00	1,766.06	441.51	1,537.27	384.32	
		10.11 11:45:00	0:15:00	1,741.99	435.50	1,556.62	389.16	
		10.11 12:00:00	0:15:00	1,715.68	428.92	1,563.57	390.89	
		10.11 12:15:00	0:15:00	1,697.07	424.27	1,580.94	395.24	
		10.11 12:30:00	0:15:00	1,675.24	418.81	1,588.39	397.10	
		10.11 12:45:00	0:15:00	1,658.61	414.65	1,606.50	401.63	
		10.11 13:00:00	0:15:00	1,676.23	419.06	1,629.33	407.33	
		10.11 13:15:00	0:15:00	1,749.43	437.36	1,646.20	411.55	
		10.11 13:30:00	0:15:00	1,902.04	475.51	1,628.58	407.15	
		10.11 13:45:00	0:15:00	2,208.01	552.00	1,637.27	409.32	
		10.11 14:00:00	0:15:00	2,543.00	635.75	1,926.11	481.53	
		10.11 14:15:00	0:15:00	2,886.93	721.73	2,310.24	577.56	
		10.11 14:30:00	0:15:00	3,240.79	810.20	2,707.28	676.82	
		10.11 14:45:00	0:15:00	3,613.76	903.44	3,182.23	795.56	
		10.11 15:00:00	0:15:00	4,012.77	1,003.19	3,689.69	922.42	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		10.11 15:15:00	0:15:00	4,447.53	1,111.88	4,612.54	1,153.14	
		10.11 15:30:00	0:15:00	4,924.96	1,231.24	5,571.88	1,392.97	
		10.11 15:45:00	0:15:00	5,454.75	1,363.69	6,739.41	1,684.85	
		10.11 16:00:00	0:15:00	6,072.64	1,518.16	6,352.55	1,588.14	
		10.11 16:15:00	0:15:00	6,878.62	1,719.65	5,696.45	1,424.11	
		10.11 16:30:00	0:15:00	7,956.56	1,989.14	4,930.92	1,232.73	
		10.11 16:45:00	0:15:00	9,389.61	2,347.40	4,087.22	1,021.80	
		10.11 17:00:00	0:15:00	11,151.20	2,787.80	3,383.97	845.99	
		10.11 17:15:00	0:15:00	12,023.19	3,005.80	2,613.97	653.49	
		10.11 17:30:00	0:11:24	13,235.88	2,514.82	1,439.00	273.41	
18-Oct	22-Feb	10.11 17:37:12	0:03:36	9:21:36	14,053.27	843.20	621.61	37.30
								22,734.41
18-Oct	22-Feb	10.18 08:22:48	0:03:36	11,875.04	712.50	449.39	26.96	
		10.18 08:30:00	0:10:48	10,629.35	1,913.28	552.87	99.52	
		10.18 08:45:00	0:15:00	8,309.68	2,077.42	964.30	241.07	
		10.18 09:00:00	0:15:00	5,844.34	1,461.09	1,304.01	326.00	
		10.18 09:15:00	0:15:00	3,961.16	990.29	1,486.15	371.54	
		10.18 09:30:00	0:15:00	2,696.36	674.09	1,534.04	383.51	
		10.18 09:45:00	0:15:00	2,053.41	513.35	1,565.06	391.27	
		10.18 10:00:00	0:15:00	1,903.28	475.82	1,581.93	395.48	
		10.18 10:15:00	0:15:00	1,893.61	473.40	1,604.02	401.00	
		10.18 10:30:00	0:15:00	1,883.68	470.92	1,612.70	403.18	
		10.18 10:45:00	0:15:00	1,878.72	469.68	1,631.07	407.77	
		10.18 11:00:00	0:15:00	1,869.53	467.38	1,636.28	409.07	
		10.18 11:15:00	0:15:00	1,854.89	463.72	1,655.38	413.85	
		10.18 11:30:00	0:15:00	1,816.93	454.23	1,667.05	416.76	
		10.18 11:45:00	0:15:00	1,791.37	447.84	1,685.41	421.35	
		10.18 12:00:00	0:15:00	1,763.58	440.89	1,692.61	423.15	
		10.18 12:15:00	0:15:00	1,744.47	436.12	1,713.70	428.43	
		10.18 12:30:00	0:15:00	1,721.39	430.35	1,720.90	430.22	
		10.18 12:45:00	0:15:00	1,706.25	426.56	1,744.97	436.24	
		10.18 13:00:00	0:15:00	1,735.54	433.88	1,780.70	445.17	
		10.18 13:15:00	0:15:00	1,817.92	454.48	1,788.39	447.10	
		10.18 13:30:00	0:15:00	2,011.23	502.81	1,760.60	440.15	
		10.18 13:45:00	0:15:00	2,327.61	581.90	1,822.88	455.72	
		10.18 14:00:00	0:15:00	2,670.55	667.64	2,257.64	564.41	
		10.18 14:15:00	0:15:00	3,017.21	754.30	2,752.44	688.11	
		10.18 14:30:00	0:15:00	3,381.49	845.37	3,268.83	817.21	
		10.18 14:45:00	0:15:00	3,765.87	941.47	3,870.34	967.59	
		10.18 15:00:00	0:15:00	4,174.81	1,043.70	4,664.90	1,166.23	
		10.18 15:15:00	0:15:00	4,623.96	1,155.99	5,843.85	1,460.96	
		10.18 15:30:00	0:15:00	5,122.48	1,280.62	7,087.31	1,771.83	
		10.18 15:45:00	0:15:00	5,670.89	1,417.72	7,712.88	1,928.22	
		10.18 16:00:00	0:15:00	6,362.22	1,590.56	6,995.49	1,748.87	
		10.18 16:15:00	0:15:00	7,286.82	1,821.70	6,218.05	1,554.51	
		10.18 16:30:00	0:15:00	8,552.86	2,138.22	5,075.83	1,268.96	
		10.18 16:45:00	0:15:00	10,247.70	2,561.93	4,154.71	1,038.68	
		10.18 17:00:00	0:15:00	11,377.51	2,844.38	3,297.37	824.34	
		10.18 17:15:00	0:13:12	12,323.19	2,711.10	2,351.68	517.37	
		10.18 17:27:00	0:06:00	9:03:36	13,893.71	1,389.37	781.17	78.12
25-Oct	15-Feb							25,009.91
		10.25 07:30:00	0:07:48	11,869.58	1,543.05	645.18	83.87	
		10.25 07:45:00	0:15:00	9,150.15	2,287.54	1,101.52	275.38	
		10.25 08:00:00	0:15:00	6,642.88	1,660.72	1,458.11	364.53	
		10.25 08:15:00	0:15:00	4,617.76	1,154.44	1,639.75	409.94	
		10.25 08:30:00	0:15:00	3,113.00	778.25	1,675.24	418.81	
		10.25 08:45:00	0:15:00	2,260.12	565.03	1,698.56	424.64	
		10.25 09:00:00	0:15:00	1,974.00	493.50	1,711.47	427.87	
		10.25 09:15:00	0:15:00	1,962.84	490.71	1,732.06	433.02	
		10.25 09:30:00	0:15:00	1,947.45	486.86	1,740.50	435.13	
		10.25 09:45:00	0:15:00	1,939.26	484.82	1,759.61	439.90	
		10.25 10:00:00	0:15:00	1,928.10	482.02	1,765.81	441.45	
		10.25 10:15:00	0:15:00	1,912.46	478.12	1,783.43	445.86	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		10.25 10:30:00	0:15:00	1,875.74	468.94	1,794.35	448.59	
		10.25 10:45:00	0:15:00	1,843.73	460.93	1,818.17	454.54	
		10.25 11:00:00	0:15:00	1,813.45	453.36	1,826.61	456.65	
		10.25 11:15:00	0:15:00	1,794.59	448.65	1,850.92	462.73	
		10.25 11:30:00	0:15:00	1,771.52	442.88	1,860.35	465.09	
		10.25 11:45:00	0:15:00	1,759.11	439.78	1,891.62	472.91	
		10.25 12:00:00	0:15:00	1,796.08	449.02	1,937.03	484.26	
		10.25 12:15:00	0:15:00	1,887.40	471.85	1,932.81	483.20	
		10.25 12:30:00	0:15:00	2,113.46	528.37	1,896.58	474.15	
		10.25 12:45:00	0:15:00	2,440.02	610.01	2,071.03	517.76	
		10.25 13:00:00	0:15:00	2,782.47	695.62	2,561.37	640.34	
		10.25 13:15:00	0:15:00	3,142.03	785.51	3,083.71	770.93	
		10.25 13:30:00	0:15:00	3,512.51	878.13	3,630.13	907.53	
		10.25 13:45:00	0:15:00	3,904.09	976.02	4,315.02	1,078.75	
		10.25 14:00:00	0:15:00	4,321.96	1,080.49	5,514.31	1,378.58	
		10.25 14:15:00	0:15:00	4,783.77	1,195.94	7,065.97	1,766.49	
		10.25 14:30:00	0:15:00	5,287.25	1,321.81	8,859.32	2,214.83	
		10.25 14:45:00	0:15:00	5,866.68	1,466.67	8,401.74	2,100.44	
		10.25 15:00:00	0:15:00	6,639.65	1,659.91	7,567.47	1,891.87	
		10.25 15:15:00	0:15:00	7,716.11	1,929.03	6,426.25	1,606.56	
		10.25 15:30:00	0:15:00	9,142.21	2,285.55	5,110.57	1,277.64	
		10.25 15:45:00	0:15:00	10,621.41	2,655.35	4,053.47	1,013.37	
		10.25 16:00:00	0:15:00	11,583.22	2,895.81	3,091.66	772.91	
		10.25 16:15:00	0:09:00	13,196.92	1,979.54	1,477.96	221.69	
		10.25 16:18:00	0:01:48	8:48:36	13,679.81	410.39	29.85	26,992.04
1-Nov	8-Feb	11.01 07:36:35	0:04:12	12,224.43	855.71	584.88	40.94	
		11.01 07:45:00	0:11:24	10,265.32	1,950.41	1,079.69	205.14	
		11.01 08:00:00	0:15:00	7,467.47	1,866.87	1,694.34	423.59	
		11.01 08:15:00	0:15:00	5,281.05	1,320.26	1,832.31	458.08	
		11.01 08:30:00	0:15:00	3,570.58	892.64	1,840.25	460.06	
		11.01 08:45:00	0:15:00	2,516.45	629.11	1,853.65	463.41	
		11.01 09:00:00	0:15:00	2,073.51	518.38	1,856.38	464.10	
		11.01 09:15:00	0:15:00	2,033.81	508.45	1,868.54	467.14	
		11.01 09:30:00	0:15:00	2,013.46	503.37	1,869.53	467.38	
		11.01 09:45:00	0:15:00	2,001.05	500.26	1,905.02	476.26	
		11.01 10:00:00	0:15:00	1,986.91	496.73	1,906.51	476.63	
		11.01 10:15:00	0:15:00	1,974.75	493.69	1,911.72	477.93	
		11.01 10:30:00	0:15:00	1,932.07	483.02	1,925.37	481.34	
		11.01 10:45:00	0:15:00	1,900.55	475.14	1,950.68	487.67	
		11.01 11:00:00	0:15:00	1,866.56	466.64	1,962.34	490.59	
		11.01 11:15:00	0:15:00	1,846.46	461.61	2,020.66	505.16	
		11.01 11:30:00	0:15:00	1,824.62	456.16	2,053.91	513.48	
		11.01 11:45:00	0:15:00	1,812.46	453.12	2,105.52	526.38	
		11.01 12:00:00	0:15:00	1,857.38	464.34	2,147.46	536.87	
		11.01 12:15:00	0:15:00	1,955.89	488.97	2,134.80	533.70	
		11.01 12:30:00	0:15:00	2,202.55	550.64	2,089.64	522.41	
		11.01 12:45:00	0:15:00	2,535.31	633.83	2,425.38	606.35	
		11.01 13:00:00	0:15:00	2,878.75	719.69	2,912.74	728.19	
		11.01 13:15:00	0:15:00	3,247.99	812.00	3,467.85	866.96	
		11.01 13:30:00	0:15:00	3,620.70	905.18	4,022.20	1,005.55	
		11.01 13:45:00	0:15:00	4,020.72	1,005.18	4,859.70	1,214.92	
		11.01 14:00:00	0:15:00	4,442.56	1,110.64	6,402.67	1,600.67	
		11.01 14:15:00	0:15:00	4,913.55	1,228.39	8,213.64	2,053.41	
		11.01 14:30:00	0:15:00	5,423.24	1,355.81	9,240.72	2,310.18	
		11.01 14:45:00	0:15:00	6,053.28	1,513.32	8,621.60	2,155.40	
		11.01 15:00:00	0:15:00	6,909.88	1,727.47	7,759.04	1,939.76	
		11.01 15:15:00	0:15:00	8,130.27	2,032.57	6,410.12	1,602.53	
		11.01 15:30:00	0:15:00	9,665.05	2,416.26	4,962.18	1,240.55	
		11.01 15:45:00	0:15:00	10,713.97	2,678.49	3,960.91	990.23	
		11.01 16:00:00	0:12:36	11,978.77	2,515.54	2,696.11	566.18	
		11.01 16:10:12	0:05:24	8:33:36	13,443.58	1,209.92	110.82	28,469.93

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
8-Nov	1-Feb	11.08 07:43:48	0:00:36	12,186.71	121.87	874.47	8.75	
		11.08 07:45:00	0:07:48	11,961.40	1,554.98	919.13	119.49	
		11.08 08:00:00	0:15:00	9,005.23	2,251.31	1,377.46	344.37	
		11.08 08:15:00	0:15:00	6,002.41	1,500.60	2,043.49	510.87	
		11.08 08:30:00	0:15:00	4,112.78	1,028.19	2,030.09	507.52	
		11.08 08:45:00	0:15:00	2,847.23	711.81	2,040.51	510.13	
		11.08 09:00:00	0:15:00	2,228.35	557.09	2,071.28	517.82	
		11.08 09:15:00	0:15:00	2,106.02	526.50	2,035.30	508.82	
		11.08 09:30:00	0:15:00	2,080.96	520.24	2,054.16	513.54	
		11.08 09:45:00	0:15:00	2,064.08	516.02	2,130.83	532.71	
		11.08 10:00:00	0:15:00	2,046.22	511.55	2,123.88	530.97	
		11.08 10:15:00	0:15:00	2,036.79	509.20	2,148.70	537.18	
		11.08 10:30:00	0:15:00	1,993.11	498.28	2,151.68	537.92	
		11.08 10:45:00	0:15:00	1,956.14	489.03	2,167.81	541.95	
		11.08 11:00:00	0:15:00	1,921.40	480.35	2,161.60	540.40	
		11.08 11:15:00	0:15:00	1,901.05	475.26	2,233.32	558.33	
		11.08 11:30:00	0:15:00	1,876.23	469.06	2,268.55	567.14	
		11.08 11:45:00	0:15:00	1,864.08	466.02	2,335.06	583.76	
		11.08 12:00:00	0:15:00	1,914.20	478.55	2,391.88	597.97	
		11.08 12:15:00	0:15:00	2,020.66	505.16	2,373.52	593.38	
		11.08 12:30:00	0:15:00	2,273.27	568.32	2,334.06	583.52	
		11.08 12:45:00	0:15:00	2,609.26	652.32	2,783.21	695.80	
		11.08 13:00:00	0:15:00	2,962.87	740.72	3,295.63	823.91	
		11.08 13:15:00	0:15:00	3,330.87	832.72	3,859.17	964.79	
		11.08 13:30:00	0:15:00	3,706.31	926.58	4,416.26	1,104.07	
		11.08 13:45:00	0:15:00	4,110.79	1,027.70	5,556.49	1,389.12	
		11.08 14:00:00	0:15:00	4,534.38	1,133.59	7,193.76	1,798.44	
		11.08 14:15:00	0:15:00	4,997.67	1,249.42	9,044.93	2,261.23	
		11.08 14:30:00	0:15:00	5,508.85	1,377.21	9,166.03	2,291.51	
		11.08 14:45:00	0:15:00	6,188.27	1,547.07	8,486.60	2,121.65	
		11.08 15:00:00	0:15:00	7,149.34	1,787.34	7,525.53	1,881.38	
		11.08 15:15:00	0:15:00	8,441.19	2,110.30	6,233.68	1,558.42	
		11.08 15:30:00	0:15:00	9,789.62	2,447.41	4,885.26	1,221.31	
		11.08 15:45:00	0:15:00	10,851.69	2,712.92	3,823.19	955.80	
		11.08 16:00:00	0:09:00	12,633.87	1,895.08	2,041.00	306.15	
		11.08 16:03:00	0:01:48	8:17:24	13,170.37	395.11	1,504.51	45.14
								29,665.25
15-Nov	25-Jan	11.15 07:51:00	0:04:48	12,537.84	1,003.03	816.15	65.29	
		11.15 08:00:00	0:12:00	10,828.86	2,165.77	783.15	156.63	
		11.15 08:15:00	0:15:00	7,638.69	1,909.67	1,547.44	386.86	
		11.15 08:30:00	0:15:00	4,731.90	1,182.98	2,254.66	563.66	
		11.15 08:45:00	0:15:00	3,266.35	816.59	2,315.70	578.93	
		11.15 09:00:00	0:15:00	2,410.00	602.50	2,389.65	597.41	
		11.15 09:15:00	0:15:00	2,177.48	544.37	2,437.29	609.32	
		11.15 09:30:00	0:15:00	2,147.21	536.80	2,348.95	587.24	
		11.15 09:45:00	0:15:00	2,127.61	531.90	2,389.90	597.47	
		11.15 10:00:00	0:15:00	2,106.27	526.57	2,480.97	620.24	
		11.15 10:15:00	0:15:00	2,093.11	523.28	2,495.86	623.96	
		11.15 10:30:00	0:15:00	2,050.68	512.67	2,459.63	614.91	
		11.15 10:45:00	0:15:00	2,012.72	503.18	2,486.92	621.73	
		11.15 11:00:00	0:15:00	1,975.74	493.94	2,498.34	624.58	
		11.15 11:15:00	0:15:00	1,952.66	488.17	2,600.57	650.14	
		11.15 11:30:00	0:15:00	1,929.09	482.27	2,657.90	664.47	
		11.15 11:45:00	0:15:00	1,915.44	478.86	2,743.51	685.88	
		11.15 12:00:00	0:15:00	1,963.58	490.90	2,784.70	696.17	
		11.15 12:15:00	0:15:00	2,077.98	519.49	2,769.56	692.39	
		11.15 12:30:00	0:15:00	2,328.11	582.03	2,718.20	679.55	
		11.15 12:45:00	0:15:00	2,663.35	665.84	3,252.21	813.05	
		11.15 13:00:00	0:15:00	3,016.72	754.18	3,785.47	946.37	
		11.15 13:15:00	0:15:00	3,388.44	847.11	4,365.14	1,091.29	
		11.15 13:30:00	0:15:00	3,768.10	942.03	4,963.42	1,240.86	
		11.15 13:45:00	0:15:00	4,169.35	1,042.34	6,267.68	1,566.92	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		11.15 14:00:00	0:15:00	4,590.71	1,147.68	7,867.98	1,966.99	
		11.15 14:15:00	0:15:00	5,043.82	1,260.96	9,631.06	2,407.76	
		11.15 14:30:00	0:15:00	5,565.18	1,391.29	9,109.70	2,277.43	
		11.15 14:45:00	0:15:00	6,290.26	1,572.57	8,384.62	2,096.15	
		11.15 15:00:00	0:15:00	7,337.19	1,834.30	7,337.69	1,834.42	
		11.15 15:15:00	0:15:00	8,613.66	2,153.41	6,061.22	1,515.31	
		11.15 15:30:00	0:15:00	9,791.85	2,447.96	4,883.02	1,220.76	
		11.15 15:45:00	0:13:48	11,083.46	2,549.20	3,591.42	826.03	
		11.15 15:57:36	0:06:36	8:00:36	12,979.54	1,427.75	1,695.34	186.49
								31,306.67
22-Nov	18-Jan	11.22 07:57:36	0:01:12	13,460.95	269.22	185.61	3.71	
		11.22 08:00:00	0:09:00	13,123.71	1,968.56	51.37	7.71	
		11.22 08:15:00	0:15:00	9,656.61	2,414.15	771.74	192.93	
		11.22 08:30:00	0:15:00	5,958.74	1,489.68	2,115.20	528.80	
		11.22 08:45:00	0:15:00	3,720.71	930.18	2,584.44	646.11	
		11.22 09:00:00	0:15:00	2,666.58	666.65	2,691.15	672.79	
		11.22 09:15:00	0:15:00	2,254.16	563.54	2,834.58	708.64	
		11.22 09:30:00	0:15:00	2,215.45	553.86	2,825.64	706.41	
		11.22 09:45:00	0:15:00	2,189.15	547.29	2,819.69	704.92	
		11.22 10:00:00	0:15:00	2,161.85	540.46	2,842.76	710.69	
		11.22 10:15:00	0:15:00	2,147.46	536.87	2,868.57	717.14	
		11.22 10:30:00	0:15:00	2,108.75	527.19	2,841.77	710.44	
		11.22 10:45:00	0:15:00	2,066.31	516.58	2,886.69	721.67	
		11.22 11:00:00	0:15:00	2,026.12	506.53	2,874.03	718.51	
		11.22 11:15:00	0:15:00	2,001.30	500.33	2,964.36	741.09	
		11.22 11:30:00	0:15:00	1,977.73	494.43	3,023.66	755.92	
		11.22 11:45:00	0:15:00	1,964.08	491.02	3,128.63	782.16	
		11.22 12:00:00	0:15:00	2,007.75	501.94	3,196.62	799.16	
		11.22 12:15:00	0:15:00	2,118.67	529.67	3,175.78	793.94	
		11.22 12:30:00	0:15:00	2,360.62	590.15	3,106.79	776.70	
		11.22 12:45:00	0:15:00	2,693.88	673.47	3,664.87	916.22	
		11.22 13:00:00	0:15:00	3,044.51	761.13	4,199.63	1,049.91	
		11.22 13:15:00	0:15:00	3,418.22	854.55	4,789.47	1,197.37	
		11.22 13:30:00	0:15:00	3,795.15	948.79	5,419.52	1,354.88	
		11.22 13:45:00	0:15:00	4,190.20	1,047.55	6,795.98	1,699.00	
		11.22 14:00:00	0:15:00	4,606.09	1,151.52	8,346.40	2,086.60	
		11.22 14:15:00	0:15:00	5,050.27	1,262.57	9,624.60	2,406.15	
		11.22 14:30:00	0:15:00	5,577.34	1,394.33	9,097.54	2,274.39	
		11.22 14:45:00	0:15:00	6,341.38	1,585.35	8,333.50	2,083.37	
		11.22 15:00:00	0:15:00	7,388.81	1,847.20	7,286.07	1,821.52	
		11.22 15:15:00	0:15:00	8,629.04	2,157.26	6,045.84	1,511.46	
		11.22 15:30:00	0:15:00	9,789.37	2,447.34	4,885.51	1,221.38	
		11.22 15:45:00	0:12:00	11,304.31	2,260.86	3,370.57	674.11	
		11.22 15:54:00	0:04:48	7:57:00	13,153.49	1,052.28	1,521.39	121.71
29-Nov	11-Jan	11.29 08:15:00	0:12:36	11,497.12	2,414.39	226.56	47.58	
		11.29 08:30:00	0:15:00	7,998.50	1,999.63	1,234.78	308.69	
		11.29 08:45:00	0:15:00	4,565.64	1,141.41	2,565.83	641.46	
		11.29 09:00:00	0:15:00	3,003.56	750.89	2,938.80	734.70	
		11.29 09:15:00	0:15:00	2,390.89	597.72	3,142.28	785.57	
		11.29 09:30:00	0:15:00	2,270.54	567.64	3,191.41	797.85	
		11.29 09:45:00	0:15:00	2,245.23	561.31	3,222.18	805.55	
		11.29 10:00:00	0:15:00	2,213.47	553.37	3,240.54	810.14	
		11.29 10:15:00	0:15:00	2,196.84	549.21	3,320.69	830.17	
		11.29 10:30:00	0:15:00	2,163.59	540.90	3,211.26	802.82	
		11.29 10:45:00	0:15:00	2,117.93	529.48	3,228.63	807.16	
		11.29 11:00:00	0:15:00	2,072.77	518.19	3,220.44	805.11	
		11.29 11:15:00	0:15:00	2,043.73	510.93	3,298.11	824.53	
		11.29 11:30:00	0:15:00	2,019.42	504.85	3,340.79	835.20	
		11.29 11:45:00	0:15:00	2,005.02	501.26	3,446.50	861.63	
		11.29 12:00:00	0:15:00	2,029.84	507.46	3,584.72	896.18	
		11.29 12:15:00	0:15:00	2,133.07	533.27	3,540.55	885.14	
		11.29 12:30:00	0:15:00	2,372.03	593.01	3,445.76	861.44	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day	
		11.29 12:45:00	0:15:00		2,696.36	674.09	3,983.49	995.87	
		11.29 13:00:00	0:15:00		3,048.97	762.24	4,530.41	1,132.60	
		11.29 13:15:00	0:15:00		3,419.21	854.80	5,117.03	1,279.26	
		11.29 13:30:00	0:15:00		3,794.90	948.73	5,770.15	1,442.54	
		11.29 13:45:00	0:15:00		4,183.00	1,045.75	7,132.97	1,783.24	
		11.29 14:00:00	0:15:00		4,591.70	1,147.93	8,635.24	2,158.81	
		11.29 14:15:00	0:15:00		5,023.47	1,255.87	9,651.40	2,412.85	
		11.29 14:30:00	0:15:00		5,542.10	1,385.53	9,132.78	2,283.19	
		11.29 14:45:00	0:15:00		6,322.52	1,580.63	8,352.36	2,088.09	
		11.29 15:00:00	0:15:00		7,366.97	1,841.74	7,307.91	1,826.98	
		11.29 15:15:00	0:15:00		8,515.14	2,128.79	6,159.74	1,539.93	
		11.29 15:30:00	0:15:00		9,715.43	2,428.86	4,959.45	1,239.86	
11.29 15:45:00	0:10:48		11,618.46	2,091.32	3,056.42	550.16			
		11.29 15:51:36	0:03:00	7:41:24	13,407.59	670.38	1,267.28	63.36	34,137.65
6-Dec	4-Jan	12.06 08:30:00	0:15:00		9,565.05	2,391.26	793.08	198.27	
		12.06 08:45:00	0:15:00		6,366.94	1,591.74	1,738.76	434.69	
		12.06 09:00:00	0:15:00		3,354.94	838.74	3,109.03	777.26	
		12.06 09:15:00	0:15:00		2,540.52	635.13	3,347.99	837.00	
		12.06 09:30:00	0:15:00		2,320.66	580.17	3,476.53	869.13	
		12.06 09:45:00	0:15:00		2,290.14	572.54	3,529.88	882.47	
		12.06 10:00:00	0:15:00		2,256.15	564.04	3,537.33	884.33	
		12.06 10:15:00	0:15:00		2,234.81	558.70	3,669.59	917.40	
		12.06 10:30:00	0:15:00		2,209.25	552.31	3,571.32	892.83	
		12.06 10:45:00	0:15:00		2,160.61	540.15	3,576.29	894.07	
		12.06 11:00:00	0:15:00		2,111.48	527.87	3,509.29	877.32	
		12.06 11:15:00	0:15:00		2,080.96	520.24	3,559.41	889.85	
		12.06 11:30:00	0:15:00		2,054.16	513.54	3,588.94	897.24	
		12.06 11:45:00	0:15:00		2,038.03	509.51	3,708.55	927.14	
		12.06 12:00:00	0:15:00		2,064.08	516.02	3,858.43	964.61	
		12.06 12:15:00	0:15:00		2,159.87	539.97	3,812.52	953.13	
		12.06 12:30:00	0:15:00		2,362.85	590.71	3,710.53	927.63	
		12.06 12:45:00	0:15:00		2,672.78	668.20	4,188.21	1,047.05	
		12.06 13:00:00	0:15:00		3,025.15	756.29	4,744.56	1,186.14	
		12.06 13:15:00	0:15:00		3,392.16	848.04	5,330.68	1,332.67	
		12.06 13:30:00	0:15:00		3,764.13	941.03	5,963.20	1,490.80	
		12.06 13:45:00	0:15:00		4,150.99	1,037.75	7,280.37	1,820.09	
		12.06 14:00:00	0:15:00		4,551.75	1,137.94	8,731.28	2,182.82	
		12.06 14:15:00	0:15:00		4,972.85	1,243.21	9,701.78	2,425.44	
		12.06 14:30:00	0:15:00		5,468.40	1,367.10	9,206.48	2,301.62	
		12.06 14:45:00	0:15:00		6,242.87	1,560.72	8,432.01	2,108.00	
		12.06 15:00:00	0:15:00		7,254.81	1,813.70	7,420.07	1,855.02	
		12.06 15:15:00	0:15:00		8,340.20	2,085.05	6,334.68	1,583.67	
		12.06 15:30:00	0:15:00		9,579.69	2,394.92	5,095.19	1,273.80	
		12.06 15:45:00	0:10:12		11,816.98	2,008.89	2,857.90	485.84	
		12.06 15:51:00	0:03:00	7:28:12	13,564.67	678.23	1,110.21	55.51	35,172.84
13-Dec	27-Dec	12.13 08:30:00	0:15:00		11,069.56	2,767.39	327.31	81.83	
		12.13 08:45:00	0:15:00		7,677.15	1,919.29	1,325.35	331.34	
		12.13 09:00:00	0:15:00		4,430.40	1,107.60	2,617.20	654.30	
		12.13 09:15:00	0:15:00		2,748.72	687.18	3,435.59	858.90	
		12.13 09:30:00	0:15:00		2,359.87	589.97	3,616.24	904.06	
		12.13 09:45:00	0:15:00		2,325.38	581.35	3,717.23	929.31	
		12.13 10:00:00	0:15:00		2,289.89	572.47	3,715.99	929.00	
		12.13 10:15:00	0:15:00		2,264.83	566.21	3,862.89	965.72	
		12.13 10:30:00	0:15:00		2,235.55	558.89	3,816.99	954.25	
		12.13 10:45:00	0:15:00		2,194.36	548.59	3,818.23	954.56	
		12.13 11:00:00	0:15:00		2,141.75	535.44	3,760.16	940.04	
		12.13 11:15:00	0:15:00		2,108.25	527.06	3,796.39	949.10	
		12.13 11:30:00	0:15:00		2,077.73	519.43	3,752.72	938.18	
		12.13 11:45:00	0:15:00		2,062.84	515.71	3,854.46	963.61	
		12.13 12:00:00	0:15:00		2,065.07	516.27	4,029.40	1,007.35	
		12.13 12:15:00	0:15:00		2,156.89	539.22	4,010.04	1,002.51	

1979 Mission Street ALTERNATIVE E: Reduced Shadow Alternative 2 (Reduced Capp Component, 35-foot setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/day
		12.13 12:30:00	0:15:00	2,328.85	582.21	3,894.16	973.54	
		12.13 12:45:00	0:15:00	2,629.11	657.28	4,261.67	1,065.42	
		12.13 13:00:00	0:15:00	2,973.79	743.45	4,818.75	1,204.69	
		12.13 13:15:00	0:15:00	3,342.53	835.63	5,442.10	1,360.52	
		12.13 13:30:00	0:15:00	3,708.80	927.20	6,020.77	1,505.19	
		12.13 13:45:00	0:15:00	4,089.45	1,022.36	7,242.90	1,810.72	
		12.13 14:00:00	0:15:00	4,481.52	1,120.38	8,628.30	2,157.07	
		12.13 14:15:00	0:15:00	4,901.39	1,225.35	9,773.49	2,443.37	
		12.13 14:30:00	0:15:00	5,370.13	1,342.53	9,304.74	2,326.19	
		12.13 14:45:00	0:15:00	6,100.18	1,525.05	8,574.70	2,143.67	
		12.13 15:00:00	0:15:00	7,071.43	1,767.86	7,603.45	1,900.86	
		12.13 15:15:00	0:15:00	8,129.77	2,032.44	6,545.11	1,636.28	
		12.13 15:30:00	0:15:00	9,356.36	2,339.09	5,318.52	1,329.63	
		12.13 15:45:00	0:10:48	11,493.39	2,068.81	3,181.48	572.67	
		12.13 15:52:11	0:03:36	7:29:24	13,702.89	822.17	971.99	58.32
20-Dec	No Mirror	12.20 08:30:00	0:12:36		12,341.56	2,591.73	19.36	4.07
		12.20 08:45:00	0:15:00		8,635.74	2,158.94	1,043.21	260.80
		12.20 09:00:00	0:15:00		5,331.67	1,332.92	2,205.52	551.38
		12.20 09:15:00	0:15:00		2,967.83	741.96	3,423.92	855.98
		12.20 09:30:00	0:15:00		2,418.19	604.55	3,640.56	910.14
		12.20 09:45:00	0:15:00		2,341.51	585.38	3,783.74	945.93
		12.20 10:00:00	0:15:00		2,307.51	576.88	3,777.53	944.38
		12.20 10:15:00	0:15:00		2,280.47	570.12	3,921.70	980.43
		12.20 10:30:00	0:15:00		2,249.94	562.49	3,925.18	981.30
		12.20 10:45:00	0:15:00		2,215.20	553.80	3,915.50	978.88
		12.20 11:00:00	0:15:00		2,161.60	540.40	3,862.15	965.54
		12.20 11:15:00	0:15:00		2,122.40	530.60	3,897.88	974.47
		12.20 11:30:00	0:15:00		2,091.63	522.91	3,844.78	961.20
		12.20 11:45:00	0:15:00		2,074.01	518.50	3,930.89	982.72
		12.20 12:00:00	0:15:00		2,059.12	514.78	4,045.03	1,011.26
		12.20 12:15:00	0:15:00		2,141.26	535.31	4,097.14	1,024.29
		12.20 12:30:00	0:15:00		2,287.17	571.79	3,982.50	995.63
		12.20 12:45:00	0:15:00		2,565.09	641.27	4,197.89	1,049.47
		12.20 13:00:00	0:15:00		2,904.30	726.08	4,779.30	1,194.83
		12.20 13:15:00	0:15:00		3,269.58	817.39	5,410.58	1,352.65
		12.20 13:30:00	0:15:00		3,634.60	908.65	5,960.23	1,490.06
		12.20 13:45:00	0:15:00		4,011.53	1,002.88	7,035.44	1,758.86
		12.20 14:00:00	0:15:00		4,401.62	1,100.41	8,412.66	2,103.16
		12.20 14:15:00	0:15:00		4,814.78	1,203.70	9,860.09	2,465.02
		12.20 14:30:00	0:15:00		5,258.22	1,314.56	9,416.66	2,354.16
		12.20 14:45:00	0:15:00		5,923.50	1,480.88	8,751.38	2,187.84
		12.20 15:00:00	0:15:00		6,863.48	1,715.87	7,811.40	1,952.85
		12.20 15:15:00	0:15:00		7,886.34	1,971.59	6,788.54	1,697.14
		12.20 15:30:00	0:15:00		9,083.40	2,270.85	5,591.48	1,397.87
		12.20 15:45:00	0:12:36		10,865.09	2,281.67	3,809.79	800.06
		12.20 15:54:36	0:04:48	7:30:00	13,687.75	1,095.02	987.13	78.97
			233:28:12			1,876,115.44	463,442.77	

Average Duration 8:58:47



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	06.21 06:46:48	0:06:36	11,691.41	1,286.06	0.00	0.00	2,983.46	328.18
172	06.21 07:00:00	0:13:48	10,187.90	2,343.22	0.00	0.00	4,486.98	1,032.01
172	06.21 07:15:00	0:15:00	8,436.73	2,109.18	0.00	0.00	6,238.15	1,559.54
172	06.21 07:30:00	0:15:00	6,354.04	1,588.51	0.00	0.00	8,320.84	2,080.21
172	06.21 07:45:00	0:15:00	4,597.90	1,149.48	0.00	0.00	10,076.97	2,519.24
172	06.21 08:00:00	0:15:00	3,307.79	826.95	0.00	0.00	11,367.09	2,841.77
172	06.21 08:15:00	0:15:00	2,380.22	595.06	0.00	0.00	12,294.66	3,073.66
172	06.21 08:30:00	0:15:00	1,736.53	434.13	0.00	0.00	12,938.35	3,234.59
172	06.21 08:45:00	0:15:00	1,362.08	340.52	0.00	0.00	13,312.80	3,328.20
172	06.21 09:00:00	0:15:00	1,321.63	330.41	0.00	0.00	13,353.25	3,338.31
172	06.21 09:15:00	0:15:00	1,311.45	327.86	0.00	0.00	13,363.42	3,340.86
172	06.21 09:30:00	0:15:00	1,328.58	332.14	18.61	4.65	13,327.69	3,331.92
172	06.21 09:45:00	0:15:00	1,346.19	336.55	88.09	22.02	13,240.59	3,310.15
172	06.21 10:00:00	0:15:00	1,361.08	340.27	143.68	35.92	13,170.12	3,292.53
172	06.21 10:15:00	0:15:00	1,373.74	343.44	201.25	50.31	13,099.89	3,274.97
172	06.21 10:30:00	0:15:00	1,384.66	346.16	243.68	60.92	13,046.54	3,261.64
172	06.21 10:45:00	0:15:00	1,388.63	347.16	288.10	72.02	12,998.15	3,249.54
172	06.21 11:00:00	0:15:00	1,375.48	343.87	316.88	79.22	12,982.52	3,245.63
172	06.21 11:15:00	0:15:00	1,366.05	341.51	352.12	88.03	12,956.71	3,239.18
172	06.21 11:30:00	0:15:00	1,351.65	337.91	369.49	92.37	12,953.73	3,238.43
172	06.21 11:45:00	0:15:00	1,339.74	334.94	397.53	99.38	12,937.61	3,234.40
172	06.21 12:00:00	0:15:00	1,325.35	331.34	403.24	100.81	12,946.29	3,236.57
172	06.21 12:15:00	0:15:00	1,314.43	328.61	427.80	106.95	12,932.64	3,233.16
172	06.21 12:30:00	0:15:00	1,296.81	324.20	422.59	105.65	12,955.47	3,238.87
172	06.21 12:45:00	0:15:00	1,285.65	321.41	439.96	109.99	12,949.27	3,237.32
172	06.21 13:00:00	0:15:00	1,267.78	316.95	425.57	106.39	12,981.53	3,245.38
172	06.21 13:15:00	0:15:00	1,266.79	316.70	437.48	109.37	12,970.61	3,242.65
172	06.21 13:30:00	0:15:00	1,289.62	322.40	414.90	103.73	12,970.36	3,242.59
172	06.21 13:45:00	0:15:00	1,339.25	334.81	419.62	104.90	12,916.02	3,229.00
172	06.21 14:00:00	0:15:00	1,404.51	351.13	388.35	97.09	12,882.02	3,220.51
172	06.21 14:15:00	0:15:00	1,599.30	399.83	375.94	93.99	12,699.63	3,174.91
172	06.21 14:30:00	0:15:00	1,815.94	453.98	335.00	83.75	12,523.95	3,130.99
172	06.21 14:45:00	0:15:00	2,036.79	509.20	313.66	78.41	12,324.44	3,081.11
172	06.21 15:00:00	0:15:00	2,257.88	564.47	264.03	66.01	12,152.97	3,038.24
172	06.21 15:15:00	0:15:00	2,464.59	616.15	225.07	56.27	11,985.22	2,996.31
172	06.21 15:30:00	0:15:00	2,660.13	665.03	168.49	42.12	11,846.26	2,961.56
172	06.21 15:45:00	0:15:00	2,867.08	716.77	117.37	29.34	11,690.42	2,922.61
172	06.21 16:00:00	0:15:00	3,068.58	767.14	65.01	16.25	11,541.29	2,885.32
172	06.21 16:15:00	0:15:00	3,275.53	818.88	24.57	6.14	11,374.78	2,843.70
172	06.21 16:30:00	0:15:00	3,488.69	872.17	0.00	0.00	11,186.19	2,796.55
172	06.21 16:45:00	0:15:00	3,731.13	932.78	0.00	0.00	10,943.75	2,735.94
172	06.21 17:00:00	0:15:00	4,124.19	1,031.05	0.00	0.00	10,550.69	2,637.67
172	06.21 17:15:00	0:15:00	4,698.40	1,174.60	0.00	0.00	9,976.48	2,494.12
172	06.21 17:30:00	0:15:00	5,378.57	1,344.64	0.00	0.00	9,296.31	2,324.08
172	06.21 17:45:00	0:15:00	6,158.99	1,539.75	0.00	0.00	8,515.89	2,128.97
172	06.21 18:00:00	0:15:00	7,046.61	1,761.65	0.00	0.00	7,628.27	1,907.07
172	06.21 18:15:00	0:15:00	8,145.40	2,036.35	0.00	0.00	6,529.47	1,632.37
172	06.21 18:30:00	0:15:00	9,548.92	2,387.23	0.00	0.00	5,125.96	1,281.49
172	06.21 18:45:00	0:15:00	11,147.23	2,786.81	0.00	0.00	3,527.65	881.91
172	06.21 19:00:00	0:15:00	12,906.34	3,226.59	0.00	0.00	1,768.54	442.14
172	06.21 19:15:00	0:18:00	14,598.70	4,379.61	0.00	0.00	76.18	22.85
172	06.21 19:36:00	0:10:48	14,674.88	2,641.48	0.00	0.00	0.00	0.00
179	06.28 06:48:35	0:06:00	11,729.88	1,172.99	0.00	0.00	2,945.00	294.50
179	06.28 07:00:00	0:13:12	10,432.82	2,295.22	0.00	0.00	4,242.06	933.25
179	06.28 07:15:00	0:15:00	8,685.12	2,171.28	0.00	0.00	5,989.76	1,497.44
179	06.28 07:30:00	0:15:00	6,615.09	1,653.77	0.00	0.00	8,059.79	2,014.95
179	06.28 07:45:00	0:15:00	4,777.31	1,194.33	0.00	0.00	9,897.56	2,474.39



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
179	06.28 08:00:00	0:15:00	3,441.05	860.26	0.00	0.00	11,233.83	2,808.46
179	06.28 08:15:00	0:15:00	2,472.78	618.20	0.00	0.00	12,202.10	3,050.53
179	06.28 08:30:00	0:15:00	1,802.54	450.63	0.00	0.00	12,872.34	3,218.09
179	06.28 08:45:00	0:15:00	1,378.95	344.74	0.00	0.00	13,295.93	3,323.98
179	06.28 09:00:00	0:15:00	1,321.88	330.47	0.00	0.00	13,353.00	3,338.25
179	06.28 09:15:00	0:15:00	1,310.96	327.74	0.00	0.00	13,363.92	3,340.98
179	06.28 09:30:00	0:15:00	1,328.58	332.14	18.61	4.65	13,327.69	3,331.92
179	06.28 09:45:00	0:15:00	1,345.70	336.42	88.59	22.15	13,240.59	3,310.15
179	06.28 10:00:00	0:15:00	1,361.08	340.27	145.91	36.48	13,167.88	3,291.97
179	06.28 10:15:00	0:15:00	1,373.99	343.50	202.74	50.68	13,098.16	3,274.54
179	06.28 10:30:00	0:15:00	1,385.40	346.35	246.41	61.60	13,043.07	3,260.77
179	06.28 10:45:00	0:15:00	1,391.61	347.90	291.08	72.77	12,992.20	3,248.05
179	06.28 11:00:00	0:15:00	1,379.20	344.80	320.36	80.09	12,975.32	3,243.83
179	06.28 11:15:00	0:15:00	1,368.28	342.07	356.34	89.09	12,950.26	3,237.57
179	06.28 11:30:00	0:15:00	1,354.63	338.66	373.96	93.49	12,946.29	3,236.57
179	06.28 11:45:00	0:15:00	1,342.72	335.68	402.25	100.56	12,929.91	3,232.48
179	06.28 12:00:00	0:15:00	1,328.82	332.21	408.95	102.24	12,937.11	3,234.28
179	06.28 12:15:00	0:15:00	1,317.41	329.35	432.77	108.19	12,924.70	3,231.18
179	06.28 12:30:00	0:15:00	1,301.03	325.26	428.55	107.14	12,945.30	3,236.32
179	06.28 12:45:00	0:15:00	1,287.88	321.97	445.67	111.42	12,941.33	3,235.33
179	06.28 13:00:00	0:15:00	1,270.01	317.50	432.02	108.01	12,972.84	3,243.21
179	06.28 13:15:00	0:15:00	1,268.03	317.01	443.69	110.92	12,963.16	3,240.79
179	06.28 13:30:00	0:15:00	1,288.13	322.03	422.84	105.71	12,963.91	3,240.98
179	06.28 13:45:00	0:15:00	1,335.77	333.94	427.31	106.83	12,911.80	3,227.95
179	06.28 14:00:00	0:15:00	1,397.31	349.33	397.53	99.38	12,880.04	3,220.01
179	06.28 14:15:00	0:15:00	1,582.68	395.67	385.62	96.41	12,706.58	3,176.65
179	06.28 14:30:00	0:15:00	1,800.55	450.14	344.68	86.17	12,529.65	3,132.41
179	06.28 14:45:00	0:15:00	2,022.14	505.54	324.08	81.02	12,328.65	3,082.16
179	06.28 15:00:00	0:15:00	2,244.98	561.25	278.17	69.54	12,151.73	3,037.93
179	06.28 15:15:00	0:15:00	2,449.45	612.36	236.73	59.18	11,988.69	2,997.17
179	06.28 15:30:00	0:15:00	2,650.70	662.68	180.65	45.16	11,843.53	2,960.88
179	06.28 15:45:00	0:15:00	2,855.42	713.86	129.28	32.32	11,690.17	2,922.54
179	06.28 16:00:00	0:15:00	3,055.67	763.92	77.42	19.36	11,541.78	2,885.45
179	06.28 16:15:00	0:15:00	3,269.08	817.27	28.29	7.07	11,377.51	2,844.38
179	06.28 16:30:00	0:15:00	3,471.57	867.89	1.74	0.43	11,201.57	2,800.39
179	06.28 16:45:00	0:15:00	3,716.98	929.25	0.00	0.00	10,957.89	2,739.47
179	06.28 17:00:00	0:15:00	4,072.83	1,018.21	0.00	0.00	10,602.05	2,650.51
179	06.28 17:15:00	0:15:00	4,652.00	1,163.00	0.00	0.00	10,022.88	2,505.72
179	06.28 17:30:00	0:15:00	5,328.69	1,332.17	0.00	0.00	9,346.18	2,336.55
179	06.28 17:45:00	0:15:00	6,098.44	1,524.61	0.00	0.00	8,576.43	2,144.11
179	06.28 18:00:00	0:15:00	6,990.28	1,747.57	0.00	0.00	7,684.60	1,921.15
179	06.28 18:15:00	0:15:00	8,056.07	2,014.02	0.00	0.00	6,618.81	1,654.70
179	06.28 18:30:00	0:15:00	9,438.00	2,359.50	0.00	0.00	5,236.88	1,309.22
179	06.28 18:45:00	0:15:00	11,047.97	2,761.99	0.00	0.00	3,626.91	906.73
179	06.28 19:00:00	0:15:00	12,815.27	3,203.82	0.00	0.00	1,859.61	464.90
179	06.28 19:15:00	0:18:00	14,539.64	4,361.89	0.00	0.00	135.24	40.57
179	06.28 19:36:36	0:10:48	14,674.88	2,641.48	0.00	0.00	0.00	0.00
186	07.05 06:52:12	0:03:36	11,801.09	708.07	0.00	0.00	2,873.78	172.43
186	07.05 07:00:00	0:11:24	10,838.78	2,059.37	0.00	0.00	3,836.09	728.86
186	07.05 07:15:00	0:15:00	9,052.13	2,263.03	0.00	0.00	5,622.75	1,405.69
186	07.05 07:30:00	0:15:00	7,000.95	1,750.24	0.00	0.00	7,673.93	1,918.48
186	07.05 07:45:00	0:15:00	5,047.30	1,261.82	0.00	0.00	9,627.58	2,406.90
186	07.05 08:00:00	0:15:00	3,629.14	907.29	0.00	0.00	11,045.74	2,761.43
186	07.05 08:15:00	0:15:00	2,590.90	647.72	0.00	0.00	12,083.98	3,021.00
186	07.05 08:30:00	0:15:00	1,881.94	470.49	0.00	0.00	12,792.94	3,198.23
186	07.05 08:45:00	0:15:00	1,398.06	349.51	0.00	0.00	13,276.82	3,319.21
186	07.05 09:00:00	0:15:00	1,320.14	330.04	0.00	0.00	13,354.74	3,338.69



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
186	07.05 09:15:00	0:15:00	1,314.93	328.73	0.00	0.00	13,359.95	3,339.99
186	07.05 09:30:00	0:15:00	1,333.04	333.26	34.49	8.62	13,307.34	3,326.84
186	07.05 09:45:00	0:15:00	1,349.17	337.29	105.71	26.43	13,220.00	3,305.00
186	07.05 10:00:00	0:15:00	1,364.06	341.02	164.77	41.19	13,146.05	3,286.51
186	07.05 10:15:00	0:15:00	1,377.71	344.43	221.84	55.46	13,075.33	3,268.83
186	07.05 10:30:00	0:15:00	1,388.63	347.16	264.52	66.13	13,021.73	3,255.43
186	07.05 10:45:00	0:15:00	1,397.56	349.39	310.43	77.61	12,966.89	3,241.72
186	07.05 11:00:00	0:15:00	1,386.64	346.66	339.96	84.99	12,948.28	3,237.07
186	07.05 11:15:00	0:15:00	1,373.24	343.31	374.45	93.61	12,927.18	3,231.80
186	07.05 11:30:00	0:15:00	1,360.59	340.15	393.56	98.39	12,920.73	3,230.18
186	07.05 11:45:00	0:15:00	1,349.17	337.29	421.85	105.46	12,903.86	3,225.96
186	07.05 12:00:00	0:15:00	1,334.28	333.57	428.55	107.14	12,912.05	3,228.01
186	07.05 12:15:00	0:15:00	1,324.61	331.15	452.12	113.03	12,898.15	3,224.54
186	07.05 12:30:00	0:15:00	1,307.98	327.00	448.15	112.04	12,918.75	3,229.69
186	07.05 12:45:00	0:15:00	1,293.59	323.40	466.02	116.51	12,915.27	3,228.82
186	07.05 13:00:00	0:15:00	1,275.97	318.99	453.12	113.28	12,945.79	3,236.45
186	07.05 13:15:00	0:15:00	1,271.01	317.75	463.79	115.95	12,940.09	3,235.02
186	07.05 13:30:00	0:15:00	1,289.87	322.47	444.93	111.23	12,940.09	3,235.02
186	07.05 13:45:00	0:15:00	1,337.26	334.32	449.64	112.41	12,887.98	3,221.99
186	07.05 14:00:00	0:15:00	1,397.56	349.39	420.61	105.15	12,856.71	3,214.18
186	07.05 14:15:00	0:15:00	1,578.46	394.62	409.44	102.36	12,686.98	3,171.74
186	07.05 14:30:00	0:15:00	1,790.38	447.59	368.75	92.19	12,515.76	3,128.94
186	07.05 14:45:00	0:15:00	2,016.69	504.17	347.16	86.79	12,311.04	3,077.76
186	07.05 15:00:00	0:15:00	2,241.26	560.31	309.69	77.42	12,123.93	3,030.98
186	07.05 15:15:00	0:15:00	2,453.17	613.29	265.02	66.26	11,956.68	2,989.17
186	07.05 15:30:00	0:15:00	2,655.17	663.79	207.70	51.93	11,812.01	2,953.00
186	07.05 15:45:00	0:15:00	2,861.38	715.34	158.57	39.64	11,654.94	2,913.73
186	07.05 16:00:00	0:15:00	3,067.59	766.90	108.69	27.17	11,498.60	2,874.65
186	07.05 16:15:00	0:15:00	3,283.72	820.93	50.37	12.59	11,340.78	2,835.20
186	07.05 16:30:00	0:15:00	3,490.92	872.73	16.13	4.03	11,167.83	2,791.96
186	07.05 16:45:00	0:15:00	3,727.41	931.85	0.00	0.00	10,947.47	2,736.87
186	07.05 17:00:00	0:15:00	4,070.84	1,017.71	0.00	0.00	10,604.04	2,651.01
186	07.05 17:15:00	0:15:00	4,646.04	1,161.51	0.00	0.00	10,028.83	2,507.21
186	07.05 17:30:00	0:15:00	5,319.02	1,329.75	0.00	0.00	9,355.86	2,338.97
186	07.05 17:45:00	0:15:00	6,087.53	1,521.88	0.00	0.00	8,587.35	2,146.84
186	07.05 18:00:00	0:15:00	6,988.05	1,747.01	0.00	0.00	7,686.83	1,921.71
186	07.05 18:15:00	0:15:00	8,069.97	2,017.49	0.00	0.00	6,604.91	1,651.23
186	07.05 18:30:00	0:15:00	9,496.81	2,374.20	0.00	0.00	5,178.07	1,294.52
186	07.05 18:45:00	0:15:00	11,119.19	2,779.80	0.00	0.00	3,555.69	888.92
186	07.05 19:00:00	0:15:00	12,855.47	3,213.87	0.00	0.00	1,819.41	454.85
186	07.05 19:15:00	0:18:00	14,585.05	4,375.51	0.00	0.00	89.83	26.95
186	07.05 19:36:00	0:10:48	14,674.88	2,641.48	0.00	0.00	0.00	0.00
193	07.12 06:56:24	0:01:48	11,927.40	357.82	0.00	0.00	2,747.48	82.42
193	07.12 07:00:00	0:09:00	11,514.98	1,727.25	0.00	0.00	3,159.90	473.98
193	07.12 07:15:00	0:15:00	9,617.41	2,404.35	0.00	0.00	5,057.47	1,264.37
193	07.12 07:30:00	0:15:00	7,539.43	1,884.86	0.00	0.00	7,135.45	1,783.86
193	07.12 07:45:00	0:15:00	5,455.75	1,363.94	0.00	0.00	9,219.13	2,304.78
193	07.12 08:00:00	0:15:00	3,872.32	968.08	0.00	0.00	10,802.55	2,700.64
193	07.12 08:15:00	0:15:00	2,748.97	687.24	0.00	0.00	11,925.91	2,981.48
193	07.12 08:30:00	0:15:00	1,968.05	492.01	0.00	0.00	12,706.83	3,176.71
193	07.12 08:45:00	0:15:00	1,452.90	363.22	0.00	0.00	13,221.98	3,305.50
193	07.12 09:00:00	0:15:00	1,315.18	328.79	0.00	0.00	13,359.70	3,339.93
193	07.12 09:15:00	0:15:00	1,321.13	330.28	1.24	0.31	13,352.51	3,338.13
193	07.12 09:30:00	0:15:00	1,339.25	334.81	65.76	16.44	13,269.87	3,317.47
193	07.12 09:45:00	0:15:00	1,357.86	339.46	138.47	34.62	13,178.56	3,294.64
193	07.12 10:00:00	0:15:00	1,370.26	342.57	196.78	49.20	13,107.83	3,276.96
193	07.12 10:15:00	0:15:00	1,385.40	346.35	255.09	63.77	13,034.38	3,258.60



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
193	07.12 10:30:00	0:15:00	1,395.58	348.89	298.77	74.69	12,980.53	3,245.13
193	07.12 10:45:00	0:15:00	1,407.24	351.81	344.43	86.11	12,923.21	3,230.80
193	07.12 11:00:00	0:15:00	1,395.33	348.83	372.47	93.12	12,907.08	3,226.77
193	07.12 11:15:00	0:15:00	1,384.16	346.04	409.69	102.42	12,881.03	3,220.26
193	07.12 11:30:00	0:15:00	1,371.26	342.81	426.32	106.58	12,877.31	3,219.33
193	07.12 11:45:00	0:15:00	1,360.09	340.02	455.85	113.96	12,858.94	3,214.74
193	07.12 12:00:00	0:15:00	1,344.21	336.05	462.30	115.57	12,868.37	3,217.09
193	07.12 12:15:00	0:15:00	1,331.31	332.83	485.87	121.47	12,857.70	3,214.43
193	07.12 12:30:00	0:15:00	1,314.18	328.55	482.65	120.66	12,878.05	3,219.51
193	07.12 12:45:00	0:15:00	1,302.27	325.57	499.77	124.94	12,872.84	3,218.21
193	07.12 13:00:00	0:15:00	1,282.67	320.67	488.10	122.03	12,904.11	3,226.03
193	07.12 13:15:00	0:15:00	1,276.47	319.12	499.02	124.76	12,899.39	3,224.85
193	07.12 13:30:00	0:15:00	1,294.33	323.58	480.91	120.23	12,899.64	3,224.91
193	07.12 13:45:00	0:15:00	1,339.99	335.00	485.13	121.28	12,849.76	3,212.44
193	07.12 14:00:00	0:15:00	1,405.00	351.25	457.58	114.40	12,812.29	3,203.07
193	07.12 14:15:00	0:15:00	1,583.92	395.98	447.90	111.98	12,643.06	3,160.76
193	07.12 14:30:00	0:15:00	1,797.08	449.27	406.46	101.62	12,471.34	3,117.83
193	07.12 14:45:00	0:15:00	2,024.13	506.03	387.61	96.90	12,263.14	3,065.79
193	07.12 15:00:00	0:15:00	2,253.67	563.42	361.55	90.39	12,059.66	3,014.92
193	07.12 15:15:00	0:15:00	2,467.82	616.95	327.31	81.83	11,879.76	2,969.94
193	07.12 15:30:00	0:15:00	2,675.02	668.75	247.65	61.91	11,752.21	2,938.05
193	07.12 15:45:00	0:15:00	2,888.18	722.04	199.26	49.82	11,587.44	2,896.86
193	07.12 16:00:00	0:15:00	3,098.60	774.65	153.85	38.46	11,422.42	2,855.61
193	07.12 16:15:00	0:15:00	3,322.68	830.67	103.48	25.87	11,248.72	2,812.18
193	07.12 16:30:00	0:15:00	3,542.54	885.63	36.97	9.24	11,095.37	2,773.84
193	07.12 16:45:00	0:15:00	3,769.34	942.34	0.00	0.00	10,905.53	2,726.38
193	07.12 17:00:00	0:15:00	4,117.74	1,029.44	0.00	0.00	10,557.14	2,639.28
193	07.12 17:15:00	0:15:00	4,674.33	1,168.58	0.00	0.00	10,000.55	2,500.14
193	07.12 17:30:00	0:15:00	5,345.32	1,336.33	0.00	0.00	9,329.56	2,332.39
193	07.12 17:45:00	0:15:00	6,137.16	1,534.29	0.00	0.00	8,537.72	2,134.43
193	07.12 18:00:00	0:15:00	7,055.79	1,763.95	0.00	0.00	7,619.09	1,904.77
193	07.12 18:15:00	0:15:00	8,193.54	2,048.39	0.00	0.00	6,481.33	1,620.33
193	07.12 18:30:00	0:15:00	9,682.42	2,420.61	0.00	0.00	4,992.46	1,248.11
193	07.12 18:45:00	0:15:00	11,384.21	2,846.05	0.00	0.00	3,290.67	822.67
193	07.12 19:00:00	0:15:00	13,096.67	3,274.17	0.00	0.00	1,578.21	394.55
193	07.12 19:15:00	0:16:48	14,674.88	4,108.97	0.00	0.00	0.00	0.00
193	07.12 19:33:36	0:09:00	14,674.88	2,201.23	0.00	0.00	0.00	0.00
200	07.19 07:01:11	0:07:48	12,130.63	1,576.98	0.00	0.00	2,544.24	330.75
200	07.19 07:16:11	0:14:24	10,217.67	2,452.24	0.00	0.00	4,457.20	1,069.73
200	07.19 07:30:00	0:14:24	8,234.24	1,976.22	0.00	0.00	6,440.64	1,545.75
200	07.19 07:45:00	0:15:00	5,938.89	1,484.72	0.00	0.00	8,735.99	2,184.00
200	07.19 08:00:00	0:15:00	4,191.69	1,047.92	0.00	0.00	10,483.19	2,620.80
200	07.19 08:15:00	0:15:00	2,927.13	731.78	0.00	0.00	11,747.74	2,936.94
200	07.19 08:30:00	0:15:00	2,074.01	518.50	0.00	0.00	12,600.87	3,150.22
200	07.19 08:45:00	0:15:00	1,539.75	384.94	0.00	0.00	13,135.13	3,283.78
200	07.19 09:00:00	0:15:00	1,309.72	327.43	0.00	0.00	13,365.16	3,341.29
200	07.19 09:15:00	0:15:00	1,331.31	332.83	38.46	9.62	13,305.11	3,326.28
200	07.19 09:30:00	0:15:00	1,348.92	337.23	117.87	29.47	13,208.08	3,302.02
200	07.19 09:45:00	0:15:00	1,366.29	341.57	190.58	47.64	13,118.01	3,279.50
200	07.19 10:00:00	0:15:00	1,381.68	345.42	248.39	62.10	13,044.80	3,261.20
200	07.19 10:15:00	0:15:00	1,394.83	348.71	305.96	76.49	12,974.08	3,243.52
200	07.19 10:30:00	0:15:00	1,406.25	351.56	349.39	87.35	12,919.24	3,229.81
200	07.19 10:45:00	0:15:00	1,417.41	354.35	394.06	98.51	12,863.41	3,215.85
200	07.19 11:00:00	0:15:00	1,408.73	352.18	423.09	105.77	12,843.06	3,210.77
200	07.19 11:15:00	0:15:00	1,398.06	349.51	458.82	114.71	12,818.00	3,204.50
200	07.19 11:30:00	0:15:00	1,381.93	345.48	475.45	118.86	12,817.50	3,204.38
200	07.19 11:45:00	0:15:00	1,371.51	342.88	503.99	126.00	12,799.39	3,199.85



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
200	07.19 12:00:00	0:15:00	1,355.38	338.84	509.94	127.49	12,809.56	3,202.39
200	07.19 12:15:00	0:15:00	1,344.71	336.18	534.26	133.57	12,795.91	3,198.98
200	07.19 12:30:00	0:15:00	1,328.33	332.08	531.03	132.76	12,815.52	3,203.88
200	07.19 12:45:00	0:15:00	1,315.67	328.92	547.91	136.98	12,811.30	3,202.83
200	07.19 13:00:00	0:15:00	1,296.32	324.08	536.49	134.12	12,842.07	3,210.52
200	07.19 13:15:00	0:15:00	1,289.37	322.34	547.41	136.85	12,838.10	3,209.52
200	07.19 13:30:00	0:15:00	1,306.49	326.62	530.29	132.57	12,838.10	3,209.52
200	07.19 13:45:00	0:15:00	1,353.14	338.29	534.01	133.50	12,787.72	3,196.93
200	07.19 14:00:00	0:15:00	1,415.68	353.92	508.45	127.11	12,750.75	3,187.69
200	07.19 14:15:00	0:15:00	1,597.32	399.33	498.03	124.51	12,579.53	3,144.88
200	07.19 14:30:00	0:15:00	1,818.42	454.60	458.33	114.58	12,398.13	3,099.53
200	07.19 14:45:00	0:15:00	2,051.43	512.86	444.43	111.11	12,179.02	3,044.76
200	07.19 15:00:00	0:15:00	2,282.70	570.67	416.14	104.04	11,976.04	2,994.01
200	07.19 15:15:00	0:15:00	2,497.84	624.46	402.49	100.62	11,774.54	2,943.64
200	07.19 15:30:00	0:15:00	2,715.71	678.93	339.46	84.87	11,619.70	2,904.93
200	07.19 15:45:00	0:15:00	2,940.53	735.13	254.60	63.65	11,479.75	2,869.94
200	07.19 16:00:00	0:15:00	3,156.92	789.23	208.20	52.05	11,309.77	2,827.44
200	07.19 16:15:00	0:15:00	3,389.93	847.48	169.73	42.43	11,115.22	2,778.80
200	07.19 16:30:00	0:15:00	3,618.47	904.62	93.80	23.45	10,962.61	2,740.65
200	07.19 16:45:00	0:15:00	3,862.15	965.54	34.49	8.62	10,778.24	2,694.56
200	07.19 17:00:00	0:15:00	4,218.98	1,054.75	0.00	0.00	10,455.89	2,613.97
200	07.19 17:15:00	0:15:00	4,761.43	1,190.36	0.00	0.00	9,913.45	2,478.36
200	07.19 17:30:00	0:15:00	5,440.36	1,360.09	0.00	0.00	9,234.52	2,308.63
200	07.19 17:45:00	0:15:00	6,261.97	1,565.49	0.00	0.00	8,412.91	2,103.23
200	07.19 18:00:00	0:15:00	7,202.94	1,800.74	0.00	0.00	7,471.93	1,867.98
200	07.19 18:15:00	0:15:00	8,441.19	2,110.30	0.00	0.00	6,233.68	1,558.42
200	07.19 18:30:00	0:15:00	10,041.24	2,510.31	0.00	0.00	4,633.64	1,158.41
200	07.19 18:45:00	0:15:00	11,872.31	2,968.08	0.00	0.00	2,802.57	700.64
200	07.19 19:00:00	0:15:00	13,500.15	3,375.04	0.00	0.00	1,174.73	293.68
200	07.19 19:15:00	0:15:00	14,674.88	3,668.72	0.00	0.00	0.00	0.00
200	07.19 19:30:00	0:07:48	14,674.88	1,907.73	0.00	0.00	0.00	0.00
207	07.26 07:07:12	0:03:36	12,403.35	744.20	0.00	0.00	2,271.53	136.29
207	07.26 07:15:00	0:11:24	11,416.22	2,169.08	0.00	0.00	3,258.66	619.15
207	07.26 07:30:00	0:15:00	8,887.61	2,221.90	0.00	0.00	5,787.27	1,446.82
207	07.26 07:45:00	0:15:00	6,543.37	1,635.84	0.00	0.00	8,131.51	2,032.88
207	07.26 08:00:00	0:15:00	4,561.18	1,140.29	0.00	0.00	10,113.70	2,528.43
207	07.26 08:15:00	0:15:00	3,135.58	783.89	0.00	0.00	11,539.30	2,884.83
207	07.26 08:30:00	0:15:00	2,233.32	558.33	0.00	0.00	12,441.56	3,110.39
207	07.26 08:45:00	0:15:00	1,655.88	413.97	0.00	0.00	13,019.00	3,254.75
207	07.26 09:00:00	0:15:00	1,340.24	335.06	18.36	4.59	13,316.28	3,329.07
207	07.26 09:15:00	0:15:00	1,344.71	336.18	109.18	27.30	13,220.99	3,305.25
207	07.26 09:30:00	0:15:00	1,362.82	340.71	187.60	46.90	13,124.46	3,281.12
207	07.26 09:45:00	0:15:00	1,380.93	345.23	260.06	65.01	13,033.89	3,258.47
207	07.26 10:00:00	0:15:00	1,395.33	348.83	318.87	79.72	12,960.68	3,240.17
207	07.26 10:15:00	0:15:00	1,407.49	351.87	374.95	93.74	12,892.44	3,223.11
207	07.26 10:30:00	0:15:00	1,419.89	354.97	415.89	103.97	12,839.09	3,209.77
207	07.26 10:45:00	0:15:00	1,429.82	357.46	460.31	115.08	12,784.75	3,196.19
207	07.26 11:00:00	0:15:00	1,425.60	356.40	487.36	121.84	12,761.92	3,190.48
207	07.26 11:15:00	0:15:00	1,414.68	353.67	522.35	130.59	12,737.85	3,184.46
207	07.26 11:30:00	0:15:00	1,399.55	349.89	539.22	134.81	12,736.11	3,184.03
207	07.26 11:45:00	0:15:00	1,387.14	346.78	567.01	141.75	12,720.73	3,180.18
207	07.26 12:00:00	0:15:00	1,370.51	342.63	573.47	143.37	12,730.90	3,182.73
207	07.26 12:15:00	0:15:00	1,356.62	339.15	596.05	149.01	12,722.21	3,180.55
207	07.26 12:30:00	0:15:00	1,340.24	335.06	593.32	148.33	12,741.32	3,185.33
207	07.26 12:45:00	0:15:00	1,328.08	332.02	609.70	152.42	12,737.10	3,184.28
207	07.26 13:00:00	0:15:00	1,307.98	327.00	598.53	149.63	12,768.37	3,192.09
207	07.26 13:15:00	0:15:00	1,300.78	325.20	609.45	152.36	12,764.65	3,191.16



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
207	07.26 13:30:00	0:15:00	1,319.15	329.79	593.81	148.45	12,761.92	3,190.48
207	07.26 13:45:00	0:15:00	1,367.29	341.82	598.28	149.57	12,709.31	3,177.33
207	07.26 14:00:00	0:15:00	1,434.78	358.70	573.47	143.37	12,666.63	3,166.66
207	07.26 14:15:00	0:15:00	1,627.84	406.96	562.80	140.70	12,484.24	3,121.06
207	07.26 14:30:00	0:15:00	1,855.89	463.97	523.09	130.77	12,295.90	3,073.98
207	07.26 14:45:00	0:15:00	2,088.40	522.10	515.65	128.91	12,070.83	3,017.71
207	07.26 15:00:00	0:15:00	2,324.39	581.10	479.17	119.79	11,871.32	2,967.83
207	07.26 15:15:00	0:15:00	2,550.20	637.55	463.79	115.95	11,660.89	2,915.22
207	07.26 15:30:00	0:15:00	2,777.25	694.31	437.98	109.50	11,459.65	2,864.91
207	07.26 15:45:00	0:15:00	3,009.52	752.38	406.46	101.62	11,258.90	2,814.72
207	07.26 16:00:00	0:15:00	3,242.03	810.51	282.39	70.60	11,150.46	2,787.61
207	07.26 16:15:00	0:15:00	3,484.97	871.24	238.97	59.74	10,950.95	2,737.74
207	07.26 16:30:00	0:15:00	3,731.13	932.78	192.31	48.08	10,751.44	2,687.86
207	07.26 16:45:00	0:15:00	3,991.19	997.80	102.98	25.75	10,580.71	2,645.18
207	07.26 17:00:00	0:15:00	4,396.66	1,099.16	17.12	4.28	10,261.10	2,565.28
207	07.26 17:15:00	0:15:00	4,924.71	1,231.18	0.00	0.00	9,750.17	2,437.54
207	07.26 17:30:00	0:15:00	5,607.11	1,401.78	0.00	0.00	9,067.76	2,266.94
207	07.26 17:45:00	0:15:00	6,452.80	1,613.20	0.00	0.00	8,222.08	2,055.52
207	07.26 18:00:00	0:15:00	7,456.55	1,864.14	0.00	0.00	7,218.33	1,804.58
207	07.26 18:15:00	0:15:00	8,804.48	2,201.12	0.00	0.00	5,870.40	1,467.60
207	07.26 18:30:00	0:15:00	10,584.43	2,646.11	0.00	0.00	4,090.44	1,022.61
207	07.26 18:45:00	0:15:00	12,516.75	3,129.19	0.00	0.00	2,158.13	539.53
207	07.26 19:00:00	0:15:00	14,226.73	3,556.68	0.00	0.00	448.15	112.04
207	07.26 19:15:00	0:12:36	14,674.88	3,081.72	0.00	0.00	0.00	0.00
207	07.26 19:25:12	0:05:24	14,674.88	1,320.74	0.00	0.00	0.00	0.00
214	08.02 07:12:36	0:01:12	12,695.66	253.91	0.00	0.00	1,979.22	39.58
214	08.02 07:15:00	0:09:00	12,450.74	1,867.61	0.00	0.00	2,224.14	333.62
214	08.02 07:30:00	0:15:00	9,787.39	2,446.85	0.00	0.00	4,887.49	1,221.87
214	08.02 07:45:00	0:15:00	7,238.43	1,809.61	0.00	0.00	7,436.45	1,859.11
214	08.02 08:00:00	0:15:00	5,063.18	1,265.79	0.00	0.00	9,611.70	2,402.93
214	08.02 08:15:00	0:15:00	3,461.64	865.41	0.00	0.00	11,213.24	2,803.31
214	08.02 08:30:00	0:15:00	2,453.67	613.42	0.00	0.00	12,221.21	3,055.30
214	08.02 08:45:00	0:15:00	1,806.51	451.63	11.17	2.79	12,857.21	3,214.30
214	08.02 09:00:00	0:15:00	1,404.76	351.19	108.44	27.11	13,161.68	3,290.42
214	08.02 09:15:00	0:15:00	1,362.08	340.52	202.74	50.68	13,110.07	3,277.52
214	08.02 09:30:00	0:15:00	1,380.19	345.05	278.17	69.54	13,016.52	3,254.13
214	08.02 09:45:00	0:15:00	1,398.80	349.70	350.38	87.60	12,925.69	3,231.42
214	08.02 10:00:00	0:15:00	1,411.46	352.86	405.72	101.43	12,857.70	3,214.43
214	08.02 10:15:00	0:15:00	1,425.10	356.28	460.81	115.20	12,788.97	3,197.24
214	08.02 10:30:00	0:15:00	1,435.78	358.94	500.51	125.13	12,738.59	3,184.65
214	08.02 10:45:00	0:15:00	1,448.18	362.05	541.70	135.43	12,684.99	3,171.25
214	08.02 11:00:00	0:15:00	1,444.71	361.18	569.00	142.25	12,661.17	3,165.29
214	08.02 11:15:00	0:15:00	1,431.56	357.89	602.00	150.50	12,641.32	3,160.33
214	08.02 11:30:00	0:15:00	1,418.16	354.54	617.39	154.35	12,639.33	3,159.83
214	08.02 11:45:00	0:15:00	1,406.25	351.56	645.18	161.30	12,623.45	3,155.86
214	08.02 12:00:00	0:15:00	1,390.12	347.53	651.63	162.91	12,633.13	3,158.28
214	08.02 12:15:00	0:15:00	1,375.23	343.81	670.00	167.50	12,629.66	3,157.41
214	08.02 12:30:00	0:15:00	1,358.85	339.71	667.76	166.94	12,648.27	3,162.07
214	08.02 12:45:00	0:15:00	1,343.96	335.99	682.65	170.66	12,648.27	3,162.07
214	08.02 13:00:00	0:15:00	1,325.60	331.40	674.46	168.62	12,674.82	3,168.70
214	08.02 13:15:00	0:15:00	1,318.65	329.66	683.89	170.97	12,672.34	3,168.08
214	08.02 13:30:00	0:15:00	1,340.74	335.18	671.98	168.00	12,662.16	3,165.54
214	08.02 13:45:00	0:15:00	1,392.85	348.21	676.70	169.17	12,605.34	3,151.33
214	08.02 14:00:00	0:15:00	1,463.57	365.89	651.14	162.78	12,560.17	3,140.04
214	08.02 14:15:00	0:15:00	1,671.02	417.75	639.72	159.93	12,364.14	3,091.04
214	08.02 14:30:00	0:15:00	1,904.52	476.13	601.76	150.44	12,168.60	3,042.15
214	08.02 14:45:00	0:15:00	2,146.96	536.74	597.29	149.32	11,930.63	2,982.66



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
214	08.02 15:00:00	0:15:00	2,390.89	597.72	551.63	137.91	11,732.36	2,933.09
214	08.02 15:15:00	0:15:00	2,619.68	654.92	536.24	134.06	11,518.95	2,879.74
214	08.02 15:30:00	0:15:00	2,856.91	714.23	506.22	126.56	11,311.75	2,827.94
214	08.02 15:45:00	0:15:00	3,107.04	776.76	491.08	122.77	11,076.76	2,769.19
214	08.02 16:00:00	0:15:00	3,350.72	837.68	469.49	117.37	10,854.66	2,713.67
214	08.02 16:15:00	0:15:00	3,617.48	904.37	362.54	90.64	10,694.86	2,673.72
214	08.02 16:30:00	0:15:00	3,870.34	967.59	272.96	68.24	10,531.58	2,632.89
214	08.02 16:45:00	0:15:00	4,176.55	1,044.14	234.75	58.69	10,263.58	2,565.90
214	08.02 17:00:00	0:15:00	4,643.56	1,160.89	110.92	27.73	9,920.39	2,480.10
214	08.02 17:15:00	0:15:00	5,188.74	1,297.19	0.00	0.00	9,486.14	2,371.53
214	08.02 17:30:00	0:15:00	5,853.03	1,463.26	0.00	0.00	8,821.85	2,205.46
214	08.02 17:45:00	0:15:00	6,740.90	1,685.22	0.00	0.00	7,933.98	1,983.50
214	08.02 18:00:00	0:15:00	7,862.52	1,965.63	0.00	0.00	6,812.36	1,703.09
214	08.02 18:15:00	0:15:00	9,358.34	2,339.59	0.00	0.00	5,316.54	1,329.13
214	08.02 18:30:00	0:15:00	11,343.02	2,835.75	0.00	0.00	3,331.86	832.97
214	08.02 18:45:00	0:15:00	13,155.23	3,288.81	0.00	0.00	1,519.65	379.91
214	08.02 19:00:00	0:15:00	14,673.64	3,668.41	0.00	0.00	1.24	0.31
214	08.02 19:15:00	0:09:00	14,674.88	2,201.23	0.00	0.00	0.00	0.00
214	08.02 19:18:36	0:01:48	14,674.88	440.25	0.00	0.00	0.00	0.00
221	08.09 07:19:12	0:05:24	12,959.44	1,166.35	0.00	0.00	1,715.44	154.39
221	08.09 07:30:00	0:12:36	10,998.09	2,309.60	0.00	0.00	3,676.78	772.13
221	08.09 07:45:00	0:15:00	8,051.85	2,012.96	0.00	0.00	6,623.03	1,655.76
221	08.09 08:00:00	0:15:00	5,689.50	1,422.38	0.00	0.00	8,985.38	2,246.35
221	08.09 08:15:00	0:15:00	3,888.70	972.18	0.00	0.00	10,786.18	2,696.54
221	08.09 08:30:00	0:15:00	2,737.05	684.26	10.17	2.54	11,927.65	2,981.91
221	08.09 08:45:00	0:15:00	1,998.82	499.71	125.56	31.39	12,550.50	3,137.62
221	08.09 09:00:00	0:15:00	1,531.56	382.89	226.56	56.64	12,916.76	3,229.19
221	08.09 09:15:00	0:15:00	1,383.66	345.92	318.12	79.53	12,973.09	3,243.27
221	08.09 09:30:00	0:15:00	1,401.53	350.38	391.82	97.96	12,881.52	3,220.38
221	08.09 09:45:00	0:15:00	1,418.40	354.60	459.82	114.95	12,796.66	3,199.16
221	08.09 10:00:00	0:15:00	1,433.79	358.45	511.93	127.98	12,729.16	3,182.29
221	08.09 10:15:00	0:15:00	1,445.95	361.49	564.29	141.07	12,664.64	3,166.16
221	08.09 10:30:00	0:15:00	1,456.87	364.22	600.51	150.13	12,617.50	3,154.37
221	08.09 10:45:00	0:15:00	1,469.03	367.26	638.73	159.68	12,567.12	3,141.78
221	08.09 11:00:00	0:15:00	1,468.03	367.01	660.57	165.14	12,546.28	3,136.57
221	08.09 11:15:00	0:15:00	1,454.63	363.66	685.88	171.47	12,534.37	3,133.59
221	08.09 11:30:00	0:15:00	1,439.50	359.87	696.30	174.08	12,539.08	3,134.77
221	08.09 11:45:00	0:15:00	1,426.59	356.65	712.92	178.23	12,535.36	3,133.84
221	08.09 12:00:00	0:15:00	1,410.71	352.68	717.89	179.47	12,546.28	3,136.57
221	08.09 12:15:00	0:15:00	1,396.07	349.02	733.02	183.26	12,545.78	3,136.45
221	08.09 12:30:00	0:15:00	1,379.20	344.80	734.02	183.50	12,561.66	3,140.42
221	08.09 12:45:00	0:15:00	1,364.56	341.14	744.19	186.05	12,566.13	3,141.53
221	08.09 13:00:00	0:15:00	1,345.45	336.36	740.22	185.06	12,589.21	3,147.30
221	08.09 13:15:00	0:15:00	1,339.99	335.00	749.90	187.48	12,584.99	3,146.25
221	08.09 13:30:00	0:15:00	1,365.80	341.45	745.18	186.30	12,563.90	3,140.97
221	08.09 13:45:00	0:15:00	1,421.88	355.47	752.88	188.22	12,500.12	3,125.03
221	08.09 14:00:00	0:15:00	1,503.77	375.94	736.50	184.13	12,434.61	3,108.65
221	08.09 14:15:00	0:15:00	1,732.06	433.02	725.33	181.33	12,217.48	3,054.37
221	08.09 14:30:00	0:15:00	1,971.77	492.94	692.08	173.02	12,011.03	3,002.76
221	08.09 14:45:00	0:15:00	2,227.61	556.90	686.37	171.59	11,760.90	2,940.22
221	08.09 15:00:00	0:15:00	2,473.27	618.32	636.74	159.19	11,564.86	2,891.22
221	08.09 15:15:00	0:15:00	2,710.50	677.63	618.13	154.53	11,346.24	2,836.56
221	08.09 15:30:00	0:15:00	2,960.14	740.03	583.14	145.79	11,131.60	2,782.90
221	08.09 15:45:00	0:15:00	3,223.17	805.79	562.30	140.58	10,889.41	2,722.35
221	08.09 16:00:00	0:15:00	3,488.94	872.23	545.67	136.42	10,640.27	2,660.07
221	08.09 16:15:00	0:15:00	3,777.04	944.26	558.08	139.52	10,339.76	2,584.94
221	08.09 16:30:00	0:15:00	4,057.94	1,014.48	446.91	111.73	10,170.03	2,542.51



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
221	08.09 16:45:00	0:15:00	4,439.59	1,109.90	325.57	81.39	9,909.72	2,477.43
221	08.09 17:00:00	0:15:00	4,940.10	1,235.02	284.13	71.03	9,450.65	2,362.66
221	08.09 17:15:00	0:15:00	5,536.39	1,384.10	136.73	34.18	9,001.76	2,250.44
221	08.09 17:30:00	0:15:00	6,233.19	1,558.30	0.00	0.00	8,441.69	2,110.42
221	08.09 17:45:00	0:15:00	7,154.80	1,788.70	0.00	0.00	7,520.07	1,880.02
221	08.09 18:00:00	0:15:00	8,430.77	2,107.69	0.00	0.00	6,244.11	1,561.03
221	08.09 18:15:00	0:15:00	10,118.17	2,529.54	0.00	0.00	4,556.71	1,139.18
221	08.09 18:30:00	0:15:00	12,396.40	3,099.10	0.00	0.00	2,278.48	569.62
221	08.09 18:45:00	0:20:24	14,078.33	4,786.63	0.00	0.00	596.54	202.83
221	08.09 19:10:48	0:12:36	14,674.88	3,081.72	0.00	0.00	0.00	0.00
228	08.16 07:25:12	0:02:24	13,203.37	528.14	0.00	0.00	1,471.51	58.86
228	08.16 07:30:00	0:10:12	12,493.42	2,123.88	0.00	0.00	2,181.45	370.85
228	08.16 07:45:00	0:15:00	9,069.75	2,267.44	0.00	0.00	5,605.13	1,401.28
228	08.16 08:00:00	0:15:00	6,377.86	1,594.46	0.00	0.00	8,297.02	2,074.26
228	08.16 08:15:00	0:15:00	4,441.57	1,110.39	19.60	4.90	10,213.70	2,553.43
228	08.16 08:30:00	0:15:00	3,132.85	783.21	154.35	38.59	11,387.68	2,846.92
228	08.16 08:45:00	0:15:00	2,244.73	561.18	271.72	67.93	12,158.43	3,039.61
228	08.16 09:00:00	0:15:00	1,694.10	423.52	368.00	92.00	12,612.78	3,153.20
228	08.16 09:15:00	0:15:00	1,414.93	353.73	456.59	114.15	12,803.36	3,200.84
228	08.16 09:30:00	0:15:00	1,428.08	357.02	524.58	131.15	12,722.21	3,180.55
228	08.16 09:45:00	0:15:00	1,444.46	361.12	589.10	147.28	12,641.32	3,160.33
228	08.16 10:00:00	0:15:00	1,458.85	364.71	630.79	157.70	12,585.24	3,146.31
228	08.16 10:15:00	0:15:00	1,470.52	367.63	664.29	166.07	12,540.07	3,135.02
228	08.16 10:30:00	0:15:00	1,483.42	370.86	686.62	171.66	12,504.84	3,126.21
228	08.16 10:45:00	0:15:00	1,491.61	372.90	711.93	177.98	12,471.34	3,117.83
228	08.16 11:00:00	0:15:00	1,493.10	373.27	727.81	181.95	12,453.97	3,113.49
228	08.16 11:15:00	0:15:00	1,481.43	370.36	748.91	187.23	12,444.54	3,111.13
228	08.16 11:30:00	0:15:00	1,466.55	366.64	758.34	189.58	12,450.00	3,112.50
228	08.16 11:45:00	0:15:00	1,449.92	362.48	776.70	194.17	12,448.26	3,112.07
228	08.16 12:00:00	0:15:00	1,434.29	358.57	779.92	194.98	12,460.67	3,115.17
228	08.16 12:15:00	0:15:00	1,418.40	354.60	795.06	198.77	12,461.41	3,115.35
228	08.16 12:30:00	0:15:00	1,401.28	350.32	795.31	198.83	12,478.29	3,119.57
228	08.16 12:45:00	0:15:00	1,385.65	346.41	806.48	201.62	12,482.75	3,120.69
228	08.16 13:00:00	0:15:00	1,367.53	341.88	802.75	200.69	12,504.59	3,126.15
228	08.16 13:15:00	0:15:00	1,364.81	341.20	812.93	203.23	12,497.15	3,124.29
228	08.16 13:30:00	0:15:00	1,395.08	348.77	810.94	202.74	12,468.86	3,117.21
228	08.16 13:45:00	0:15:00	1,455.38	363.85	816.65	204.16	12,402.85	3,100.71
228	08.16 14:00:00	0:15:00	1,570.52	392.63	801.02	200.25	12,303.34	3,075.84
228	08.16 14:15:00	0:15:00	1,805.51	451.38	792.33	198.08	12,077.03	3,019.26
228	08.16 14:30:00	0:15:00	2,056.39	514.10	768.01	192.00	11,850.48	2,962.62
228	08.16 14:45:00	0:15:00	2,326.12	581.53	760.82	190.20	11,587.94	2,896.98
228	08.16 15:00:00	0:15:00	2,575.76	643.94	724.59	181.15	11,374.53	2,843.63
228	08.16 15:15:00	0:15:00	2,824.65	706.16	704.98	176.25	11,145.24	2,786.31
228	08.16 15:30:00	0:15:00	3,084.71	771.18	668.26	167.07	10,921.91	2,730.48
228	08.16 15:45:00	0:15:00	3,365.11	841.28	639.97	159.99	10,669.80	2,667.45
228	08.16 16:00:00	0:15:00	3,650.23	912.56	631.04	157.76	10,393.61	2,598.40
228	08.16 16:15:00	0:15:00	3,958.68	989.67	695.55	173.89	10,020.65	2,505.16
228	08.16 16:30:00	0:15:00	4,287.97	1,071.99	703.99	176.00	9,682.92	2,420.73
228	08.16 16:45:00	0:15:00	4,762.18	1,190.54	597.29	149.32	9,315.41	2,328.85
228	08.16 17:00:00	0:15:00	5,309.34	1,327.34	391.58	97.89	8,973.96	2,243.49
228	08.16 17:15:00	0:15:00	5,967.42	1,491.86	374.95	93.74	8,332.51	2,083.13
228	08.16 17:30:00	0:15:00	6,746.85	1,686.71	156.58	39.15	7,771.45	1,942.86
228	08.16 17:45:00	0:15:00	7,735.22	1,933.80	0.00	0.00	6,939.66	1,734.92
228	08.16 18:00:00	0:15:00	9,159.08	2,289.77	0.00	0.00	5,515.80	1,378.95
228	08.16 18:15:00	0:15:00	11,135.32	2,783.83	0.00	0.00	3,539.56	884.89
228	08.16 18:30:00	0:15:00	13,142.57	3,285.64	0.00	0.00	1,532.30	383.08
228	08.16 18:45:00	0:16:12	14,674.88	3,962.22	0.00	0.00	0.00	0.00



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
228	08.16 19:02:23	0:08:24	14,674.88	2,054.48	0.00	0.00	0.00	0.00
235	08.23 07:31:48	0:06:36	13,384.02	1,472.24	0.00	0.00	1,290.86	141.99
235	08.23 07:45:00	0:13:48	10,367.06	2,384.42	0.00	0.00	4,307.82	990.80
235	08.23 08:00:00	0:15:00	7,258.53	1,814.63	43.67	10.92	7,372.68	1,843.17
235	08.23 08:15:00	0:15:00	5,200.90	1,300.23	201.99	50.50	9,271.99	2,318.00
235	08.23 08:30:00	0:15:00	3,644.77	911.19	335.74	83.94	10,694.36	2,673.59
235	08.23 08:45:00	0:15:00	2,559.13	639.78	449.39	112.35	11,666.35	2,916.59
235	08.23 09:00:00	0:15:00	1,875.74	468.94	539.47	134.87	12,259.67	3,064.92
235	08.23 09:15:00	0:15:00	1,482.92	370.73	606.22	151.56	12,585.73	3,146.43
235	08.23 09:30:00	0:15:00	1,461.09	365.27	645.43	161.36	12,568.36	3,142.09
235	08.23 09:45:00	0:15:00	1,475.97	368.99	684.14	171.04	12,514.76	3,128.69
235	08.23 10:00:00	0:15:00	1,489.13	372.28	712.43	178.11	12,473.32	3,118.33
235	08.23 10:15:00	0:15:00	1,501.78	375.45	742.21	185.55	12,430.89	3,107.72
235	08.23 10:30:00	0:15:00	1,508.98	377.24	763.05	190.76	12,402.85	3,100.71
235	08.23 10:45:00	0:15:00	1,519.40	379.85	787.37	196.84	12,368.11	3,092.03
235	08.23 11:00:00	0:15:00	1,527.84	381.96	801.02	200.25	12,346.02	3,086.51
235	08.23 11:15:00	0:15:00	1,510.47	377.62	821.36	205.34	12,343.05	3,085.76
235	08.23 11:30:00	0:15:00	1,491.61	372.90	829.80	207.45	12,353.47	3,088.37
235	08.23 11:45:00	0:15:00	1,475.48	368.87	846.68	211.67	12,352.72	3,088.18
235	08.23 12:00:00	0:15:00	1,458.60	364.65	850.89	212.72	12,365.38	3,091.35
235	08.23 12:15:00	0:15:00	1,442.23	360.56	864.79	216.20	12,367.86	3,091.97
235	08.23 12:30:00	0:15:00	1,424.61	356.15	865.53	216.38	12,384.74	3,096.18
235	08.23 12:45:00	0:15:00	1,408.73	352.18	876.45	219.11	12,389.70	3,097.42
235	08.23 13:00:00	0:15:00	1,390.61	347.65	873.72	218.43	12,410.54	3,102.64
235	08.23 13:15:00	0:15:00	1,391.36	347.84	885.39	221.35	12,398.13	3,099.53
235	08.23 13:30:00	0:15:00	1,430.32	357.58	883.40	220.85	12,361.16	3,090.29
235	08.23 13:45:00	0:15:00	1,496.82	374.21	890.60	222.65	12,287.46	3,071.87
235	08.23 14:00:00	0:15:00	1,653.65	413.41	872.98	218.25	12,148.25	3,037.06
235	08.23 14:15:00	0:15:00	1,904.52	476.13	862.81	215.70	11,907.55	2,976.89
235	08.23 14:30:00	0:15:00	2,166.81	541.70	873.23	218.31	11,634.84	2,908.71
235	08.23 14:45:00	0:15:00	2,440.77	610.19	838.98	209.75	11,395.13	2,848.78
235	08.23 15:00:00	0:15:00	2,698.34	674.59	800.27	200.07	11,176.26	2,794.07
235	08.23 15:15:00	0:15:00	2,967.33	741.83	777.94	194.49	10,929.61	2,732.40
235	08.23 15:30:00	0:15:00	3,241.29	810.32	746.42	186.61	10,687.17	2,671.79
235	08.23 15:45:00	0:15:00	3,544.27	886.07	722.35	180.59	10,408.25	2,602.06
235	08.23 16:00:00	0:15:00	3,855.95	963.99	770.25	192.56	10,048.69	2,512.17
235	08.23 16:15:00	0:15:00	4,192.18	1,048.05	914.17	228.54	9,568.52	2,392.13
235	08.23 16:30:00	0:15:00	4,593.19	1,148.30	990.85	247.71	9,090.84	2,272.71
235	08.23 16:45:00	0:15:00	5,131.91	1,282.98	1,001.27	250.32	8,541.69	2,135.42
235	08.23 17:00:00	0:15:00	5,747.32	1,436.83	742.21	185.55	8,185.35	2,046.34
235	08.23 17:15:00	0:15:00	6,501.93	1,625.48	536.49	134.12	7,636.46	1,909.11
235	08.23 17:30:00	0:15:00	7,387.81	1,846.95	498.53	124.63	6,788.54	1,697.14
235	08.23 17:45:00	0:15:00	8,552.86	2,138.22	174.70	43.67	5,947.32	1,486.83
235	08.23 18:00:00	0:15:00	10,163.08	2,540.77	0.00	0.00	4,511.80	1,127.95
235	08.23 18:15:00	0:15:00	12,305.08	3,076.27	0.00	0.00	2,369.80	592.45
235	08.23 18:30:00	0:15:00	14,089.50	3,522.38	0.00	0.00	585.38	146.34
235	08.23 18:45:00	0:11:24	14,674.88	2,788.23	0.00	0.00	0.00	0.00
235	08.23 18:52:48	0:03:36	14,674.88	880.49	0.00	0.00	0.00	0.00
242	08.30 07:37:48	0:03:36	13,319.25	799.16	2.48	0.15	1,353.14	81.19
242	08.30 07:45:00	0:11:24	12,014.00	2,282.66	73.70	14.00	2,587.17	491.56
242	08.30 08:00:00	0:15:00	8,459.31	2,114.83	255.84	63.96	5,959.73	1,489.93
242	08.30 08:15:00	0:15:00	6,057.75	1,514.44	424.33	106.08	8,192.80	2,048.20
242	08.30 08:30:00	0:15:00	4,266.38	1,066.60	538.23	134.56	9,870.27	2,467.57
242	08.30 08:45:00	0:15:00	2,949.47	737.37	602.50	150.63	11,122.91	2,780.73
242	08.30 09:00:00	0:15:00	2,090.63	522.66	654.61	163.65	11,929.63	2,982.41
242	08.30 09:15:00	0:15:00	1,603.03	400.76	703.00	175.75	12,368.85	3,092.21
242	08.30 09:30:00	0:15:00	1,502.77	375.69	740.22	185.06	12,431.88	3,107.97



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
242	08.30 09:45:00	0:15:00	1,512.20	378.05	775.71	193.93	12,386.97	3,096.74
242	08.30 10:00:00	0:15:00	1,522.38	380.59	801.26	200.32	12,351.24	3,087.81
242	08.30 10:15:00	0:15:00	1,538.26	384.57	828.81	207.20	12,307.81	3,076.95
242	08.30 10:30:00	0:15:00	1,545.70	386.43	847.67	211.92	12,281.51	3,070.38
242	08.30 10:45:00	0:15:00	1,552.90	388.23	870.75	217.69	12,251.23	3,062.81
242	08.30 11:00:00	0:15:00	1,556.87	389.22	883.15	220.79	12,234.85	3,058.71
242	08.30 11:15:00	0:15:00	1,539.75	384.94	901.52	225.38	12,233.61	3,058.40
242	08.30 11:30:00	0:15:00	1,518.90	379.73	909.95	227.49	12,246.02	3,061.51
242	08.30 11:45:00	0:15:00	1,501.04	375.26	925.34	231.33	12,248.50	3,062.13
242	08.30 12:00:00	0:15:00	1,483.42	370.86	929.56	232.39	12,261.90	3,065.48
242	08.30 12:15:00	0:15:00	1,466.79	366.70	942.71	235.68	12,265.38	3,066.34
242	08.30 12:30:00	0:15:00	1,449.42	362.36	943.45	235.86	12,282.00	3,070.50
242	08.30 12:45:00	0:15:00	1,432.80	358.20	955.36	238.84	12,286.72	3,071.68
242	08.30 13:00:00	0:15:00	1,416.17	354.04	953.38	238.35	12,305.33	3,076.33
242	08.30 13:15:00	0:15:00	1,421.63	355.41	967.27	241.82	12,285.97	3,071.49
242	08.30 13:30:00	0:15:00	1,469.03	367.26	965.79	241.45	12,240.07	3,060.02
242	08.30 13:45:00	0:15:00	1,542.23	385.56	973.97	243.49	12,158.67	3,039.67
242	08.30 14:00:00	0:15:00	1,746.21	436.55	952.39	238.10	11,976.29	2,994.07
242	08.30 14:15:00	0:15:00	2,015.44	503.86	951.39	237.85	11,708.04	2,927.01
242	08.30 14:30:00	0:15:00	2,299.08	574.77	1,003.75	250.94	11,372.05	2,843.01
242	08.30 14:45:00	0:15:00	2,576.50	644.13	997.05	249.26	11,101.32	2,775.33
242	08.30 15:00:00	0:15:00	2,844.01	711.00	958.09	239.52	10,872.78	2,718.20
242	08.30 15:15:00	0:15:00	3,138.31	784.58	920.38	230.09	10,616.20	2,654.05
242	08.30 15:30:00	0:15:00	3,436.33	859.08	840.97	210.24	10,397.58	2,599.40
242	08.30 15:45:00	0:15:00	3,760.41	940.10	824.59	206.15	10,089.88	2,522.47
242	08.30 16:00:00	0:15:00	4,094.41	1,023.60	1,013.18	253.30	9,567.28	2,391.82
242	08.30 16:15:00	0:15:00	4,477.30	1,119.33	1,247.68	311.92	8,949.89	2,237.47
242	08.30 16:30:00	0:15:00	4,953.50	1,238.37	1,424.36	356.09	8,297.02	2,074.26
242	08.30 16:45:00	0:15:00	5,552.27	1,388.07	1,458.60	364.65	7,664.00	1,916.00
242	08.30 17:00:00	0:15:00	6,249.07	1,562.27	1,132.79	283.20	7,293.02	1,823.26
242	08.30 17:15:00	0:15:00	7,109.39	1,777.35	902.26	225.57	6,663.23	1,665.81
242	08.30 17:30:00	0:15:00	8,155.83	2,038.96	800.02	200.01	5,719.03	1,429.76
242	08.30 17:45:00	0:15:00	9,525.59	2,381.40	633.02	158.26	4,516.26	1,129.07
242	08.30 18:00:00	0:15:00	11,519.95	2,879.99	96.78	24.19	3,058.16	764.54
242	08.30 18:15:00	0:15:00	13,187.49	3,296.87	0.00	0.00	1,487.39	371.85
242	08.30 18:30:00	0:13:48	14,406.63	3,313.53	0.00	0.00	268.25	61.70
242	08.30 18:42:36	0:06:36	14,665.70	1,613.23	0.00	0.00	9.18	1.01
249	09.06 07:44:24	0:07:48	13,675.10	1,777.76	200.25	26.03	799.53	103.94
249	09.06 08:00:00	0:15:00	9,939.25	2,484.81	404.48	101.12	4,331.15	1,082.79
249	09.06 08:15:00	0:15:00	7,076.64	1,769.16	535.75	133.94	7,062.49	1,765.62
249	09.06 08:30:00	0:15:00	5,002.63	1,250.66	642.20	160.55	9,030.04	2,257.51
249	09.06 08:45:00	0:15:00	3,434.84	858.71	712.43	178.11	10,527.61	2,631.90
249	09.06 09:00:00	0:15:00	2,375.51	593.88	762.06	190.51	11,537.32	2,884.33
249	09.06 09:15:00	0:15:00	1,792.11	448.03	806.48	201.62	12,076.29	3,019.07
249	09.06 09:30:00	0:15:00	1,544.96	386.24	839.73	209.93	12,290.19	3,072.55
249	09.06 09:45:00	0:15:00	1,553.89	388.47	874.47	218.62	12,246.52	3,061.63
249	09.06 10:00:00	0:15:00	1,562.08	390.52	897.55	224.39	12,215.25	3,053.81
249	09.06 10:15:00	0:15:00	1,573.74	393.44	924.35	231.09	12,176.79	3,044.20
249	09.06 10:30:00	0:15:00	1,581.19	395.30	939.98	235.00	12,153.71	3,038.43
249	09.06 10:45:00	0:15:00	1,591.61	397.90	961.82	240.45	12,121.45	3,030.36
249	09.06 11:00:00	0:15:00	1,595.09	398.77	972.98	243.25	12,106.81	3,026.70
249	09.06 11:15:00	0:15:00	1,577.22	394.30	989.61	247.40	12,108.05	3,027.01
249	09.06 11:30:00	0:15:00	1,555.38	388.85	997.80	249.45	12,121.70	3,030.43
249	09.06 11:45:00	0:15:00	1,538.26	384.57	1,012.93	253.23	12,123.69	3,030.92
249	09.06 12:00:00	0:15:00	1,520.14	380.04	1,017.15	254.29	12,137.58	3,034.40
249	09.06 12:15:00	0:15:00	1,502.77	375.69	1,030.55	257.64	12,141.55	3,035.39
249	09.06 12:30:00	0:15:00	1,484.66	371.17	1,031.79	257.95	12,158.43	3,039.61



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
249	09.06 12:45:00	0:15:00	1,467.79	366.95	1,042.71	260.68	12,164.38	3,041.10
249	09.06 13:00:00	0:15:00	1,450.17	362.54	1,040.73	260.18	12,183.98	3,046.00
249	09.06 13:15:00	0:15:00	1,468.03	367.01	1,057.60	264.40	12,149.24	3,037.31
249	09.06 13:30:00	0:15:00	1,519.65	379.91	1,057.35	264.34	12,097.88	3,024.47
249	09.06 13:45:00	0:15:00	1,607.99	402.00	1,062.07	265.52	12,004.82	3,001.21
249	09.06 14:00:00	0:15:00	1,858.12	464.53	1,039.98	260.00	11,776.78	2,944.19
249	09.06 14:15:00	0:15:00	2,141.75	535.44	1,064.55	266.14	11,468.58	2,867.15
249	09.06 14:30:00	0:15:00	2,439.03	609.76	1,148.67	287.17	11,087.18	2,771.79
249	09.06 14:45:00	0:15:00	2,730.11	682.53	1,192.10	298.02	10,752.68	2,688.17
249	09.06 15:00:00	0:15:00	3,024.16	756.04	1,201.52	300.38	10,449.19	2,612.30
249	09.06 15:15:00	0:15:00	3,340.79	835.20	1,231.05	307.76	10,103.03	2,525.76
249	09.06 15:30:00	0:15:00	3,660.90	915.23	1,209.96	302.49	9,804.01	2,451.00
249	09.06 15:45:00	0:15:00	4,018.48	1,004.62	1,240.98	310.25	9,415.42	2,353.85
249	09.06 16:00:00	0:15:00	4,379.29	1,094.82	1,465.06	366.26	8,830.54	2,207.63
249	09.06 16:15:00	0:15:00	4,820.74	1,205.19	1,752.41	438.10	8,101.73	2,025.43
249	09.06 16:30:00	0:15:00	5,376.34	1,344.09	2,032.82	508.20	7,265.72	1,816.43
249	09.06 16:45:00	0:15:00	6,033.43	1,508.36	1,853.16	463.29	6,788.29	1,697.07
249	09.06 17:00:00	0:15:00	6,825.76	1,706.44	1,526.60	381.65	6,322.52	1,580.63
249	09.06 17:15:00	0:15:00	7,805.94	1,951.49	1,321.63	330.41	5,547.31	1,386.83
249	09.06 17:30:00	0:15:00	9,035.50	2,258.88	1,215.67	303.92	4,423.70	1,105.93
249	09.06 17:45:00	0:15:00	10,726.62	2,681.66	936.75	234.19	3,011.50	752.88
249	09.06 18:00:00	0:15:00	12,473.57	3,118.39	603.99	151.00	1,597.32	399.33
249	09.06 18:15:00	0:16:12	13,981.31	3,774.95	0.00	0.00	693.57	187.26
249	09.06 18:31:48	0:08:24	14,602.42	2,044.34	0.00	0.00	72.46	10.14
256	09.13 07:50:24	0:04:48	13,536.13	1,082.89	231.27	18.50	907.47	72.60
256	09.13 08:00:00	0:12:36	11,474.53	2,409.65	359.56	75.51	2,840.78	596.56
256	09.13 08:15:00	0:15:00	8,196.03	2,049.01	570.74	142.68	5,908.12	1,477.03
256	09.13 08:30:00	0:15:00	5,813.32	1,453.33	721.61	180.40	8,139.94	2,034.99
256	09.13 08:45:00	0:15:00	4,018.73	1,004.68	813.92	203.48	9,842.23	2,460.56
256	09.13 09:00:00	0:15:00	2,739.29	684.82	864.05	216.01	11,071.54	2,767.89
256	09.13 09:15:00	0:15:00	2,000.80	500.20	908.96	227.24	11,765.11	2,941.28
256	09.13 09:30:00	0:15:00	1,610.97	402.74	941.72	235.43	12,122.20	3,030.55
256	09.13 09:45:00	0:15:00	1,602.03	400.51	975.22	243.80	12,097.63	3,024.41
256	09.13 10:00:00	0:15:00	1,608.48	402.12	998.04	249.51	12,068.35	3,017.09
256	09.13 10:15:00	0:15:00	1,617.91	404.48	1,022.61	255.65	12,034.35	3,008.59
256	09.13 10:30:00	0:15:00	1,621.39	405.35	1,038.00	259.50	12,015.49	3,003.87
256	09.13 10:45:00	0:15:00	1,628.09	407.02	1,058.10	264.52	11,988.69	2,997.17
256	09.13 11:00:00	0:15:00	1,629.33	407.33	1,069.76	267.44	11,975.79	2,993.95
256	09.13 11:15:00	0:15:00	1,612.95	403.24	1,086.39	271.60	11,975.54	2,993.89
256	09.13 11:30:00	0:15:00	1,588.39	397.10	1,092.34	273.09	11,994.15	2,998.54
256	09.13 11:45:00	0:15:00	1,571.51	392.88	1,108.22	277.06	11,995.15	2,998.79
256	09.13 12:00:00	0:15:00	1,549.18	387.29	1,111.45	277.86	12,014.25	3,003.56
256	09.13 12:15:00	0:15:00	1,534.29	383.57	1,124.60	281.15	12,015.99	3,004.00
256	09.13 12:30:00	0:15:00	1,512.45	378.11	1,125.84	281.46	12,036.59	3,009.15
256	09.13 12:45:00	0:15:00	1,497.07	374.27	1,138.99	284.75	12,038.82	3,009.71
256	09.13 13:00:00	0:15:00	1,479.95	369.99	1,138.99	284.75	12,055.94	3,013.99
256	09.13 13:15:00	0:15:00	1,510.47	377.62	1,155.87	288.97	12,008.55	3,002.14
256	09.13 13:30:00	0:15:00	1,574.24	393.56	1,158.60	289.65	11,942.04	2,985.51
256	09.13 13:45:00	0:15:00	1,710.97	427.74	1,158.10	289.53	11,805.81	2,951.45
256	09.13 14:00:00	0:15:00	126.00	497.78	1,134.77	283.69	11,548.98	2,887.24
256	09.13 14:15:00	0:15:00	2,295.85	573.96	1,231.55	307.89	11,147.48	2,786.87
256	09.13 14:30:00	0:15:00	2,609.51	652.38	1,326.09	331.52	10,739.28	2,684.82
256	09.13 14:45:00	0:15:00	2,915.97	728.99	1,424.36	356.09	10,334.55	2,583.64
256	09.13 15:00:00	0:15:00	3,227.14	806.79	1,499.55	374.89	9,948.19	2,487.05
256	09.13 15:15:00	0:15:00	3,572.07	893.02	1,600.30	400.07	9,502.52	2,375.63
256	09.13 15:30:00	0:15:00	3,929.15	982.29	1,666.80	416.70	9,078.93	2,269.73
256	09.13 15:45:00	0:15:00	4,310.05	1,077.51	1,966.06	491.52	8,398.76	2,099.69



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
256	09.13 16:00:00	0:15:00	4,718.75	1,179.69	2,253.42	563.35	7,702.71	1,925.68
256	09.13 16:15:00	0:15:00	5,221.99	1,305.50	2,614.97	653.74	6,837.92	1,709.48
256	09.13 16:30:00	0:15:00	5,841.86	1,460.47	2,611.74	652.94	6,221.28	1,555.32
256	09.13 16:45:00	0:15:00	6,591.01	1,647.75	2,238.78	559.69	5,845.09	1,461.27
256	09.13 17:00:00	0:15:00	7,484.84	1,871.21	1,897.82	474.46	5,292.22	1,323.05
256	09.13 17:15:00	0:15:00	8,609.19	2,152.30	1,765.07	441.27	4,300.62	1,075.16
256	09.13 17:30:00	0:15:00	10,070.27	2,517.57	1,539.75	384.94	3,064.86	766.21
256	09.13 17:45:00	0:15:00	11,841.29	2,960.32	1,278.70	319.67	1,554.89	388.72
256	09.13 18:00:00	0:15:00	13,307.09	3,326.77	870.25	217.56	497.53	124.38
256	09.13 18:15:00	0:10:48	14,041.36	2,527.45	385.87	69.46	247.65	44.58
256	09.13 18:21:00	0:03:00	14,396.21	719.81	181.89	9.10	96.78	4.84
263	09.20 07:57:00	0:01:12	13,188.48	263.77	126.31	2.53	1,360.09	27.20
263	09.20 08:00:00	0:09:00	12,572.83	1,885.92	191.57	28.74	1,910.48	286.57
263	09.20 08:15:00	0:15:00	9,384.65	2,346.16	491.08	122.77	4,799.15	1,199.79
263	09.20 08:30:00	0:15:00	6,715.34	1,678.83	740.72	185.18	7,218.83	1,804.71
263	09.20 08:45:00	0:15:00	4,683.76	1,170.94	886.88	221.72	9,104.24	2,276.06
263	09.20 09:00:00	0:15:00	3,164.86	791.22	971.49	242.87	10,538.53	2,634.63
263	09.20 09:15:00	0:15:00	2,249.20	562.30	1,015.91	253.98	11,409.77	2,852.44
263	09.20 09:30:00	0:15:00	1,733.05	433.26	1,047.67	261.92	11,894.15	2,973.54
263	09.20 09:45:00	0:15:00	1,655.14	413.78	1,079.19	269.80	11,940.55	2,985.14
263	09.20 10:00:00	0:15:00	1,661.59	415.40	1,101.03	275.26	11,912.26	2,978.07
263	09.20 10:15:00	0:15:00	1,666.55	416.64	1,126.34	281.58	11,881.99	2,970.50
263	09.20 10:30:00	0:15:00	1,666.30	416.58	1,141.23	285.31	11,867.35	2,966.84
263	09.20 10:45:00	0:15:00	1,671.51	417.88	1,161.82	290.46	11,841.54	2,960.39
263	09.20 11:00:00	0:15:00	1,672.01	418.00	1,171.75	292.94	11,831.12	2,957.78
263	09.20 11:15:00	0:15:00	1,654.14	413.54	1,190.11	297.53	11,830.62	2,957.66
263	09.20 11:30:00	0:15:00	1,627.10	406.77	1,196.07	299.02	11,851.72	2,962.93
263	09.20 11:45:00	0:15:00	1,607.24	401.81	1,211.70	302.93	11,855.94	2,963.98
263	09.20 12:00:00	0:15:00	1,586.90	396.72	1,214.43	303.61	11,873.55	2,968.39
263	09.20 12:15:00	0:15:00	1,569.28	392.32	1,227.58	306.90	11,878.02	2,969.51
263	09.20 12:30:00	0:15:00	1,550.91	387.73	1,229.81	307.45	11,894.15	2,973.54
263	09.20 12:45:00	0:15:00	1,535.28	383.82	1,241.97	310.49	11,897.62	2,974.41
263	09.20 13:00:00	0:15:00	1,523.37	380.84	1,246.44	311.61	11,905.07	2,976.27
263	09.20 13:15:00	0:15:00	1,566.05	391.51	1,265.79	316.45	11,843.03	2,960.76
263	09.20 13:30:00	0:15:00	1,635.04	408.76	1,267.04	316.76	11,772.81	2,943.20
263	09.20 13:45:00	0:15:00	1,835.29	458.82	1,260.83	315.21	11,578.76	2,894.69
263	09.20 14:00:00	0:15:00	2,134.31	533.58	1,252.89	313.22	11,287.68	2,821.92
263	09.20 14:15:00	0:15:00	2,465.09	616.27	1,424.11	356.03	10,785.68	2,696.42
263	09.20 14:30:00	0:15:00	2,785.94	696.49	1,559.60	389.90	10,329.34	2,582.34
263	09.20 14:45:00	0:15:00	3,122.43	780.61	1,725.86	431.46	9,826.59	2,456.65
263	09.20 15:00:00	0:15:00	3,467.10	866.78	1,869.04	467.26	9,338.74	2,334.69
263	09.20 15:15:00	0:15:00	3,844.28	961.07	2,058.37	514.59	8,772.22	2,193.06
263	09.20 15:30:00	0:15:00	4,231.14	1,057.79	2,334.31	583.58	8,109.42	2,027.36
263	09.20 15:45:00	0:15:00	4,644.31	1,161.08	2,853.93	713.48	7,176.64	1,794.16
263	09.20 16:00:00	0:15:00	5,096.93	1,274.23	3,270.07	817.52	6,307.88	1,576.97
263	09.20 16:15:00	0:15:00	5,689.00	1,422.25	3,757.43	939.36	5,228.44	1,307.11
263	09.20 16:30:00	0:15:00	6,359.99	1,590.00	3,288.44	822.11	5,026.45	1,256.61
263	09.20 16:45:00	0:15:00	7,200.21	1,800.05	2,810.51	702.63	4,664.16	1,166.04
263	09.20 17:00:00	0:15:00	8,228.04	2,057.01	2,489.65	622.41	3,957.19	989.30
263	09.20 17:15:00	0:15:00	9,532.29	2,383.07	2,267.56	566.89	2,875.02	718.76
263	09.20 17:30:00	0:15:00	11,343.51	2,835.88	1,927.60	481.90	1,403.76	350.94
263	09.20 17:45:00	0:15:00	12,582.01	3,145.50	1,544.71	386.18	548.16	137.04
263	09.20 18:00:00	0:12:36	13,441.34	2,822.68	1,035.02	217.35	198.52	41.69
263	09.20 18:09:36	0:04:48	13,899.92	1,111.99	711.68	56.94	63.28	5.06
270	09.27 08:03:00	0:06:00	12,756.95	1,275.70	152.86	15.29	1,765.07	176.51
270	09.27 08:15:00	0:13:12	10,524.13	2,315.31	339.71	74.74	3,811.03	838.43
270	09.27 08:30:00	0:15:00	7,833.73	1,958.43	684.64	171.16	6,156.51	1,539.13



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
270	09.27 08:45:00	0:15:00	5,483.29	1,370.82	941.22	235.31	8,250.37	2,062.59
270	09.27 09:00:00	0:15:00	3,745.52	936.38	1,073.73	268.43	9,855.63	2,463.91
270	09.27 09:15:00	0:15:00	2,561.61	640.40	1,130.06	282.52	10,983.20	2,745.80
270	09.27 09:30:00	0:15:00	1,907.75	476.94	1,160.83	290.21	11,606.30	2,901.58
270	09.27 09:45:00	0:15:00	1,713.45	428.36	1,191.85	297.96	11,769.58	2,942.40
270	09.27 10:00:00	0:15:00	1,712.95	428.24	1,212.44	303.11	11,749.48	2,937.37
270	09.27 10:15:00	0:15:00	1,713.20	428.30	1,235.27	308.82	11,726.40	2,931.60
270	09.27 10:30:00	0:15:00	1,714.44	428.61	1,249.42	312.35	11,711.02	2,927.75
270	09.27 10:45:00	0:15:00	1,717.17	429.29	1,268.77	317.19	11,688.93	2,922.23
270	09.27 11:00:00	0:15:00	1,716.18	429.05	1,277.46	319.36	11,681.24	2,920.31
270	09.27 11:15:00	0:15:00	1,699.06	424.76	1,295.82	323.96	11,680.00	2,920.00
270	09.27 11:30:00	0:15:00	1,671.02	417.75	1,303.76	325.94	11,700.10	2,925.03
270	09.27 11:45:00	0:15:00	1,648.44	412.11	1,320.64	330.16	11,705.81	2,926.45
270	09.27 12:00:00	0:15:00	1,628.83	407.21	1,322.12	330.53	11,723.92	2,930.98
270	09.27 12:15:00	0:15:00	1,610.97	402.74	1,337.76	334.44	11,726.15	2,931.54
270	09.27 12:30:00	0:15:00	1,590.62	397.65	1,341.48	335.37	11,742.78	2,935.70
270	09.27 12:45:00	0:15:00	1,573.25	393.31	1,355.62	338.91	11,746.01	2,936.50
270	09.27 13:00:00	0:15:00	1,566.55	391.64	1,364.81	341.20	11,743.52	2,935.88
270	09.27 13:15:00	0:15:00	1,622.38	405.60	1,383.42	345.85	11,669.08	2,917.27
270	09.27 13:30:00	0:15:00	1,697.82	424.45	1,384.16	346.04	11,592.90	2,898.23
270	09.27 13:45:00	0:15:00	1,957.38	489.35	1,371.51	342.88	11,345.99	2,836.50
270	09.27 14:00:00	0:15:00	2,270.04	567.51	1,406.00	351.50	10,998.84	2,749.71
270	09.27 14:15:00	0:15:00	2,607.52	651.88	1,651.66	412.92	10,415.69	2,603.92
270	09.27 14:30:00	0:15:00	2,936.56	734.14	1,860.11	465.03	9,878.21	2,469.55
270	09.27 14:45:00	0:15:00	3,288.44	822.11	2,107.51	526.88	9,278.94	2,319.73
270	09.27 15:00:00	0:15:00	3,656.44	914.11	2,344.24	586.06	8,674.20	2,168.55
270	09.27 15:15:00	0:15:00	4,059.18	1,014.79	2,652.93	663.23	7,962.77	1,990.69
270	09.27 15:30:00	0:15:00	4,488.97	1,122.24	3,217.96	804.49	6,967.95	1,741.99
270	09.27 15:45:00	0:15:00	4,945.31	1,236.33	3,897.63	974.41	5,831.94	1,457.98
270	09.27 16:00:00	0:15:00	5,479.07	1,369.77	4,564.16	1,141.04	4,631.65	1,157.91
270	09.27 16:15:00	0:15:00	6,120.53	1,530.13	4,505.59	1,126.40	4,048.76	1,012.19
270	09.27 16:30:00	0:15:00	6,914.10	1,728.53	3,922.95	980.74	3,837.83	959.46
270	09.27 16:45:00	0:15:00	7,891.05	1,972.76	3,431.86	857.97	3,351.96	837.99
270	09.27 17:00:00	0:15:00	9,112.93	2,278.23	3,021.93	755.48	2,540.03	635.01
270	09.27 17:15:00	0:15:00	10,705.28	2,676.32	2,694.87	673.72	1,274.73	318.68
270	09.27 17:30:00	0:15:00	12,025.42	3,006.36	2,242.00	560.50	407.46	101.86
270	09.27 17:45:00	0:13:48	13,057.46	3,003.22	1,483.92	341.30	133.50	30.71
270	09.27 17:58:11	0:06:36	13,745.57	1,512.01	899.53	98.95	29.78	3.28
277	10.04 08:09:36	0:02:24	12,400.37	496.02	180.90	7.24	2,093.61	83.74
277	10.04 08:15:00	0:10:12	11,439.79	1,944.77	253.36	43.07	2,981.73	506.89
277	10.04 08:30:00	0:15:00	8,955.10	2,238.78	580.41	145.10	5,139.36	1,284.84
277	10.04 08:45:00	0:15:00	6,376.86	1,594.22	972.73	243.18	7,325.28	1,831.32
277	10.04 09:00:00	0:15:00	4,378.79	1,094.70	1,179.94	294.98	9,116.15	2,279.04
277	10.04 09:15:00	0:15:00	2,991.90	747.98	1,250.91	312.73	10,432.07	2,608.02
277	10.04 09:30:00	0:15:00	2,144.73	536.18	1,282.42	320.61	11,247.73	2,811.93
277	10.04 09:45:00	0:15:00	1,779.71	444.93	1,311.45	327.86	11,583.72	2,895.93
277	10.04 10:00:00	0:15:00	1,771.77	442.94	1,329.82	332.45	11,573.30	2,893.32
277	10.04 10:15:00	0:15:00	1,771.02	442.76	1,352.15	338.04	11,551.71	2,887.93
277	10.04 10:30:00	0:15:00	1,765.81	441.45	1,363.56	340.89	11,545.50	2,886.38
277	10.04 10:45:00	0:15:00	1,765.56	441.39	1,382.92	345.73	11,526.40	2,881.60
277	10.04 11:00:00	0:15:00	1,764.07	441.02	1,391.11	347.78	11,519.70	2,879.92
277	10.04 11:15:00	0:15:00	1,746.45	436.61	1,409.22	352.31	11,519.20	2,879.80
277	10.04 11:30:00	0:15:00	1,717.67	429.42	1,415.92	353.98	11,541.29	2,885.32
277	10.04 11:45:00	0:15:00	1,694.59	423.65	1,434.29	358.57	11,546.00	2,886.50
277	10.04 12:00:00	0:15:00	1,672.01	418.00	1,439.25	359.81	11,563.62	2,890.91
277	10.04 12:15:00	0:15:00	1,653.15	413.29	1,455.38	363.85	11,566.35	2,891.59
277	10.04 12:30:00	0:15:00	1,631.07	407.77	1,459.85	364.96	11,583.97	2,895.99



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
277	10.04 12:45:00	0:15:00	1,615.18	403.80	1,474.98	368.75	11,584.71	2,896.18
277	10.04 13:00:00	0:15:00	1,612.95	403.24	1,489.87	372.47	11,572.06	2,893.01
277	10.04 13:15:00	0:15:00	1,678.71	419.68	1,510.47	377.62	11,485.70	2,871.43
277	10.04 13:30:00	0:15:00	1,789.14	447.28	1,502.53	375.63	11,383.22	2,845.80
277	10.04 13:45:00	0:15:00	2,083.93	520.98	1,488.13	372.03	11,102.81	2,775.70
277	10.04 14:00:00	0:15:00	2,408.76	602.19	1,637.52	409.38	10,628.60	2,657.15
277	10.04 14:15:00	0:15:00	2,744.25	686.06	1,950.68	487.67	9,979.95	2,494.99
277	10.04 14:30:00	0:15:00	3,086.69	771.67	2,242.50	560.63	9,345.69	2,336.42
277	10.04 14:45:00	0:15:00	3,452.21	863.05	2,590.15	647.54	8,632.51	2,158.13
277	10.04 15:00:00	0:15:00	3,837.83	959.46	2,940.53	735.13	7,896.51	1,974.13
277	10.04 15:15:00	0:15:00	4,256.45	1,064.11	3,536.58	884.15	6,881.84	1,720.46
277	10.04 15:30:00	0:15:00	4,712.30	1,178.08	4,290.20	1,072.55	5,672.38	1,418.09
277	10.04 15:45:00	0:15:00	5,214.55	1,303.64	5,170.13	1,292.53	4,290.20	1,072.55
277	10.04 16:00:00	0:15:00	5,788.26	1,447.07	5,648.06	1,412.02	3,238.56	809.64
277	10.04 16:15:00	0:15:00	6,505.40	1,626.35	5,140.60	1,285.15	3,028.87	757.22
277	10.04 16:30:00	0:15:00	7,422.30	1,855.58	4,506.34	1,126.58	2,746.24	686.56
277	10.04 16:45:00	0:15:00	8,620.60	2,155.15	3,857.68	964.42	2,196.59	549.15
277	10.04 17:00:00	0:15:00	10,140.75	2,535.19	3,335.58	833.90	1,198.55	299.64
277	10.04 17:15:00	0:15:00	11,603.32	2,900.83	2,749.71	687.43	321.85	80.46
277	10.04 17:30:00	0:16:12	12,684.99	3,424.95	1,989.89	537.27	0.00	0.00
277	10.04 17:47:23	0:08:24	14,056.99	1,967.98	616.64	86.33	1.24	0.17
284	10.11 08:16:11	0:07:12	12,039.32	1,444.72	324.08	38.89	2,311.48	277.38
284	10.11 08:30:00	0:14:24	9,887.39	2,372.97	418.13	100.35	4,369.36	1,048.65
284	10.11 08:45:00	0:15:00	7,290.54	1,822.64	942.21	235.55	6,442.13	1,610.53
284	10.11 09:00:00	0:15:00	5,059.95	1,264.99	1,238.00	309.50	8,376.92	2,094.23
284	10.11 09:15:00	0:15:00	3,428.14	857.04	1,372.75	343.19	9,873.99	2,468.50
284	10.11 09:30:00	0:15:00	2,408.51	602.13	1,407.24	351.81	10,859.13	2,714.78
284	10.11 09:45:00	0:15:00	1,896.58	474.15	1,437.26	359.32	11,341.03	2,835.26
284	10.11 10:00:00	0:15:00	1,835.29	458.82	1,453.89	363.47	11,385.70	2,846.42
284	10.11 10:15:00	0:15:00	1,831.07	457.77	1,475.23	368.81	11,368.58	2,842.14
284	10.11 10:30:00	0:15:00	1,825.36	456.34	1,486.40	371.60	11,363.12	2,840.78
284	10.11 10:45:00	0:15:00	1,820.15	455.04	1,504.02	376.00	11,350.71	2,837.68
284	10.11 11:00:00	0:15:00	1,815.69	453.92	1,511.96	377.99	11,347.24	2,836.81
284	10.11 11:15:00	0:15:00	1,797.57	449.39	1,529.82	382.46	11,347.48	2,836.87
284	10.11 11:30:00	0:15:00	1,766.06	441.51	1,537.27	384.32	11,371.55	2,842.89
284	10.11 11:45:00	0:15:00	1,741.99	435.50	1,556.62	389.16	11,376.27	2,844.07
284	10.11 12:00:00	0:15:00	1,715.68	428.92	1,563.57	390.89	11,395.62	2,848.91
284	10.11 12:15:00	0:15:00	1,697.07	424.27	1,580.94	395.24	11,396.86	2,849.22
284	10.11 12:30:00	0:15:00	1,675.24	418.81	1,588.39	397.10	11,411.26	2,852.81
284	10.11 12:45:00	0:15:00	1,658.61	414.65	1,606.50	401.63	11,409.77	2,852.44
284	10.11 13:00:00	0:15:00	1,676.23	419.06	1,629.33	407.33	11,369.32	2,842.33
284	10.11 13:15:00	0:15:00	1,749.43	437.36	1,646.20	411.55	11,279.24	2,819.81
284	10.11 13:30:00	0:15:00	1,902.04	475.51	1,628.58	407.15	11,144.25	2,786.06
284	10.11 13:45:00	0:15:00	2,208.01	552.00	1,637.27	409.32	10,829.60	2,707.40
284	10.11 14:00:00	0:15:00	2,543.00	635.75	1,926.11	481.53	10,205.76	2,551.44
284	10.11 14:15:00	0:15:00	2,886.93	721.73	2,310.24	577.56	9,477.70	2,369.43
284	10.11 14:30:00	0:15:00	3,240.79	810.20	2,707.28	676.82	8,726.81	2,181.70
284	10.11 14:45:00	0:15:00	3,613.76	903.44	3,182.23	795.56	7,878.89	1,969.72
284	10.11 15:00:00	0:15:00	4,012.77	1,003.19	3,689.69	922.42	6,972.42	1,743.10
284	10.11 15:15:00	0:15:00	4,447.53	1,111.88	4,612.54	1,153.14	5,614.81	1,403.70
284	10.11 15:30:00	0:15:00	4,924.96	1,231.24	5,571.88	1,392.97	4,178.04	1,044.51
284	10.11 15:45:00	0:15:00	5,454.75	1,363.69	6,739.41	1,684.85	2,480.72	620.18
284	10.11 16:00:00	0:15:00	6,072.64	1,518.16	6,352.55	1,588.14	2,249.70	562.42
284	10.11 16:15:00	0:15:00	6,878.62	1,719.65	5,696.45	1,424.11	2,099.81	524.95
284	10.11 16:30:00	0:15:00	7,956.56	1,989.14	4,930.92	1,232.73	1,787.40	446.85
284	10.11 16:45:00	0:15:00	9,389.61	2,347.40	4,087.22	1,021.80	1,198.05	299.51
284	10.11 17:00:00	0:15:00	11,151.20	2,787.80	3,383.97	845.99	139.71	34.93



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
284	10.11 17:15:00	0:15:00	12,023.19	3,005.80	2,613.97	653.49	37.72	9.43
284	10.11 17:30:00	0:11:24	13,235.88	2,514.82	1,439.00	273.41	0.00	0.00
284	10.11 17:37:12	0:03:36	14,053.27	843.20	621.61	37.30	0.00	0.00
291	10.18 08:22:48	0:03:36	11,875.04	712.50	449.39	26.96	2,350.44	141.03
291	10.18 08:30:00	0:10:48	10,629.35	1,913.28	552.87	99.52	3,492.66	628.68
291	10.18 08:45:00	0:15:00	8,309.68	2,077.42	964.30	241.07	5,400.91	1,350.23
291	10.18 09:00:00	0:15:00	5,844.34	1,461.09	1,304.01	326.00	7,526.53	1,881.63
291	10.18 09:15:00	0:15:00	3,961.16	990.29	1,486.15	371.54	9,227.57	2,306.89
291	10.18 09:30:00	0:15:00	2,696.36	674.09	1,534.04	383.51	10,444.48	2,611.12
291	10.18 09:45:00	0:15:00	2,053.41	513.35	1,565.06	391.27	11,056.41	2,764.10
291	10.18 10:00:00	0:15:00	1,903.28	475.82	1,581.93	395.48	11,189.66	2,797.42
291	10.18 10:15:00	0:15:00	1,893.61	473.40	1,604.02	401.00	11,177.26	2,794.31
291	10.18 10:30:00	0:15:00	1,883.68	470.92	1,612.70	403.18	11,178.50	2,794.62
291	10.18 10:45:00	0:15:00	1,878.72	469.68	1,631.07	407.77	11,165.10	2,791.27
291	10.18 11:00:00	0:15:00	1,869.53	467.38	1,636.28	409.07	11,169.07	2,792.27
291	10.18 11:15:00	0:15:00	1,854.89	463.72	1,655.38	413.85	11,164.60	2,791.15
291	10.18 11:30:00	0:15:00	1,816.93	454.23	1,667.05	416.76	11,190.90	2,797.73
291	10.18 11:45:00	0:15:00	1,791.37	447.84	1,685.41	421.35	11,198.10	2,799.53
291	10.18 12:00:00	0:15:00	1,763.58	440.89	1,692.61	423.15	11,218.70	2,804.67
291	10.18 12:15:00	0:15:00	1,744.47	436.12	1,713.70	428.43	11,216.71	2,804.18
291	10.18 12:30:00	0:15:00	1,721.39	430.35	1,720.90	430.22	11,232.59	2,808.15
291	10.18 12:45:00	0:15:00	1,706.25	426.56	1,744.97	436.24	11,223.66	2,805.91
291	10.18 13:00:00	0:15:00	1,735.54	433.88	1,780.70	445.17	11,158.64	2,789.66
291	10.18 13:15:00	0:15:00	1,817.92	454.48	1,788.39	447.10	11,068.57	2,767.14
291	10.18 13:30:00	0:15:00	2,011.23	502.81	1,760.60	440.15	10,903.05	2,725.76
291	10.18 13:45:00	0:15:00	2,327.61	581.90	1,822.88	455.72	10,524.38	2,631.10
291	10.18 14:00:00	0:15:00	2,670.55	667.64	2,257.64	564.41	9,746.69	2,436.67
291	10.18 14:15:00	0:15:00	3,017.21	754.30	2,752.44	688.11	8,905.23	2,226.31
291	10.18 14:30:00	0:15:00	3,381.49	845.37	3,268.83	817.21	8,024.56	2,006.14
291	10.18 14:45:00	0:15:00	3,765.87	941.47	3,870.34	967.59	7,038.67	1,759.67
291	10.18 15:00:00	0:15:00	4,174.81	1,043.70	4,664.90	1,166.23	5,835.16	1,458.79
291	10.18 15:15:00	0:15:00	4,623.96	1,155.99	5,843.85	1,460.96	4,207.07	1,051.77
291	10.18 15:30:00	0:15:00	5,122.48	1,280.62	7,087.31	1,771.83	2,465.09	616.27
291	10.18 15:45:00	0:15:00	5,670.89	1,417.72	7,712.88	1,928.22	1,291.11	322.78
291	10.18 16:00:00	0:15:00	6,362.22	1,590.56	6,995.49	1,748.87	1,317.16	329.29
291	10.18 16:15:00	0:15:00	7,286.82	1,821.70	6,218.05	1,554.51	1,170.01	292.50
291	10.18 16:30:00	0:15:00	8,552.86	2,138.22	5,075.83	1,268.96	1,046.19	261.55
291	10.18 16:45:00	0:15:00	10,247.70	2,561.93	4,154.71	1,038.68	272.47	68.12
291	10.18 17:00:00	0:15:00	11,377.51	2,844.38	3,297.37	824.34	0.00	0.00
291	10.18 17:15:00	0:13:12	12,323.19	2,711.10	2,351.68	517.37	0.00	0.00
291	10.18 17:27:00	0:06:00	13,893.71	1,389.37	781.17	78.12	0.00	0.00
298	10.25 07:30:00	0:07:48	11,869.58	1,543.05	645.18	83.87	2,160.11	280.82
298	10.25 07:45:00	0:15:00	9,150.15	2,287.54	1,101.52	275.38	4,423.21	1,105.80
298	10.25 08:00:00	0:15:00	6,642.88	1,660.72	1,458.11	364.53	6,573.89	1,643.47
298	10.25 08:15:00	0:15:00	4,617.76	1,154.44	1,639.75	409.94	8,417.37	2,104.34
298	10.25 08:30:00	0:15:00	3,113.00	778.25	1,675.24	418.81	9,886.65	2,471.66
298	10.25 08:45:00	0:15:00	2,260.12	565.03	1,698.56	424.64	10,716.20	2,679.05
298	10.25 09:00:00	0:15:00	1,974.00	493.50	1,711.47	427.87	10,989.41	2,747.35
298	10.25 09:15:00	0:15:00	1,962.84	490.71	1,732.06	433.02	10,979.98	2,745.00
298	10.25 09:30:00	0:15:00	1,947.45	486.86	1,740.50	435.13	10,986.93	2,746.73
298	10.25 09:45:00	0:15:00	1,939.26	484.82	1,759.61	439.90	10,976.01	2,744.00
298	10.25 10:00:00	0:15:00	1,928.10	482.02	1,765.81	441.45	10,980.97	2,745.24
298	10.25 10:15:00	0:15:00	1,912.46	478.12	1,783.43	445.86	10,978.99	2,744.75
298	10.25 10:30:00	0:15:00	1,875.74	468.94	1,794.35	448.59	11,004.79	2,751.20
298	10.25 10:45:00	0:15:00	1,843.73	460.93	1,818.17	454.54	11,012.98	2,753.25
298	10.25 11:00:00	0:15:00	1,813.45	453.36	1,826.61	456.65	11,034.82	2,758.71
298	10.25 11:15:00	0:15:00	1,794.59	448.65	1,850.92	462.73	11,029.36	2,757.34



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
298	10.25 11:30:00	0:15:00	1,771.52	442.88	1,860.35	465.09	11,043.01	2,760.75
298	10.25 11:45:00	0:15:00	1,759.11	439.78	1,891.62	472.91	11,024.15	2,756.04
298	10.25 12:00:00	0:15:00	1,796.08	449.02	1,937.03	484.26	10,941.76	2,735.44
298	10.25 12:15:00	0:15:00	1,887.40	471.85	1,932.81	483.20	10,854.66	2,713.67
298	10.25 12:30:00	0:15:00	2,113.46	528.37	1,896.58	474.15	10,664.83	2,666.21
298	10.25 12:45:00	0:15:00	2,440.02	610.01	2,071.03	517.76	10,163.83	2,540.96
298	10.25 13:00:00	0:15:00	2,782.47	695.62	2,561.37	640.34	9,331.05	2,332.76
298	10.25 13:15:00	0:15:00	3,142.03	785.51	3,083.71	770.93	8,449.13	2,112.28
298	10.25 13:30:00	0:15:00	3,512.51	878.13	3,630.13	907.53	7,532.23	1,883.06
298	10.25 13:45:00	0:15:00	3,904.09	976.02	4,315.02	1,078.75	6,455.78	1,613.94
298	10.25 14:00:00	0:15:00	4,321.96	1,080.49	5,514.31	1,378.58	4,838.61	1,209.65
298	10.25 14:15:00	0:15:00	4,783.77	1,195.94	7,065.97	1,766.49	2,825.15	706.29
298	10.25 14:30:00	0:15:00	5,287.25	1,321.81	8,859.32	2,214.83	528.30	132.08
298	10.25 14:45:00	0:15:00	5,866.68	1,466.67	8,401.74	2,100.44	406.46	101.62
298	10.25 15:00:00	0:15:00	6,639.65	1,659.91	7,567.47	1,891.87	467.76	116.94
298	10.25 15:15:00	0:15:00	7,716.11	1,929.03	6,426.25	1,606.56	532.52	133.13
298	10.25 15:30:00	0:15:00	9,142.21	2,285.55	5,110.57	1,277.64	422.10	105.52
298	10.25 15:45:00	0:15:00	10,621.41	2,655.35	4,053.47	1,013.37	0.00	0.00
298	10.25 16:00:00	0:15:00	11,583.22	2,895.81	3,091.66	772.91	0.00	0.00
298	10.25 16:15:00	0:09:00	13,196.92	1,979.54	1,477.96	221.69	0.00	0.00
298	10.25 16:18:00	0:01:48	13,679.81	410.39	995.07	29.85	0.00	0.00
305	11.01 07:36:35	0:04:12	12,224.43	855.71	584.88	40.94	1,865.56	130.59
305	11.01 07:45:00	0:11:24	10,265.32	1,950.41	1,079.69	205.14	3,329.88	632.68
305	11.01 08:00:00	0:15:00	7,467.47	1,866.87	1,694.34	423.59	5,513.07	1,378.27
305	11.01 08:15:00	0:15:00	5,281.05	1,320.26	1,832.31	458.08	7,561.52	1,890.38
305	11.01 08:30:00	0:15:00	3,570.58	892.64	1,840.25	460.06	9,264.05	2,316.01
305	11.01 08:45:00	0:15:00	2,516.45	629.11	1,853.65	463.41	10,304.77	2,576.19
305	11.01 09:00:00	0:15:00	2,073.51	518.38	1,856.38	464.10	10,744.98	2,686.25
305	11.01 09:15:00	0:15:00	2,033.81	508.45	1,868.54	467.14	10,772.53	2,693.13
305	11.01 09:30:00	0:15:00	2,013.46	503.37	1,869.53	467.38	10,791.88	2,697.97
305	11.01 09:45:00	0:15:00	2,001.05	500.26	1,905.02	476.26	10,768.81	2,692.20
305	11.01 10:00:00	0:15:00	1,986.91	496.73	1,906.51	476.63	10,781.46	2,695.37
305	11.01 10:15:00	0:15:00	1,974.75	493.69	1,911.72	477.93	10,788.41	2,697.10
305	11.01 10:30:00	0:15:00	1,932.07	483.02	1,925.37	481.34	10,817.44	2,704.36
305	11.01 10:45:00	0:15:00	1,900.55	475.14	1,950.68	487.67	10,823.65	2,705.91
305	11.01 11:00:00	0:15:00	1,866.56	466.64	1,962.34	490.59	10,845.98	2,711.50
305	11.01 11:15:00	0:15:00	1,846.46	461.61	2,020.66	505.16	10,807.77	2,701.94
305	11.01 11:30:00	0:15:00	1,824.62	456.16	2,053.91	513.48	10,796.35	2,699.09
305	11.01 11:45:00	0:15:00	1,812.46	453.12	2,105.52	526.38	10,756.90	2,689.22
305	11.01 12:00:00	0:15:00	1,857.38	464.34	2,147.46	536.87	10,670.04	2,667.51
305	11.01 12:15:00	0:15:00	1,955.89	488.97	2,134.80	533.70	10,584.19	2,646.05
305	11.01 12:30:00	0:15:00	2,202.55	550.64	2,089.64	522.41	10,382.69	2,595.67
305	11.01 12:45:00	0:15:00	2,535.31	633.83	2,425.38	606.35	9,714.18	2,428.55
305	11.01 13:00:00	0:15:00	2,878.75	719.69	2,912.74	728.19	8,883.39	2,220.85
305	11.01 13:15:00	0:15:00	3,247.99	812.00	3,467.85	866.96	7,959.05	1,989.76
305	11.01 13:30:00	0:15:00	3,620.70	905.18	4,022.20	1,005.55	7,031.97	1,757.99
305	11.01 13:45:00	0:15:00	4,020.72	1,005.18	4,859.70	1,214.92	5,794.47	1,448.62
305	11.01 14:00:00	0:15:00	4,442.56	1,110.64	6,402.67	1,600.67	3,829.64	957.41
305	11.01 14:15:00	0:15:00	4,913.55	1,228.39	8,213.64	2,053.41	1,547.69	386.92
305	11.01 14:30:00	0:15:00	5,423.24	1,355.81	9,240.72	2,310.18	10.92	2.73
305	11.01 14:45:00	0:15:00	6,053.28	1,513.32	8,621.60	2,155.40	0.00	0.00
305	11.01 15:00:00	0:15:00	6,909.88	1,727.47	7,759.04	1,939.76	5.96	1.49
305	11.01 15:15:00	0:15:00	8,130.27	2,032.57	6,410.12	1,602.53	134.50	33.62
305	11.01 15:30:00	0:15:00	9,665.05	2,416.26	4,962.18	1,240.55	47.64	11.91
305	11.01 15:45:00	0:15:00	10,713.97	2,678.49	3,960.91	990.23	0.00	0.00
305	11.01 16:00:00	0:12:36	11,978.77	2,515.54	2,696.11	566.18	0.00	0.00
305	11.01 16:10:12	0:05:24	13,443.58	1,209.92	1,231.30	110.82	0.00	0.00



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
312	11.08 07:43:48	0:00:36	12,186.71	121.87	874.47	8.75	1,613.70	16.14
312	11.08 07:45:00	0:07:48	11,961.40	1,554.98	919.13	119.49	1,794.35	233.27
312	11.08 08:00:00	0:15:00	9,005.23	2,251.31	1,377.46	344.37	4,292.19	1,073.05
312	11.08 08:15:00	0:15:00	6,002.41	1,500.60	2,043.49	510.87	6,628.98	1,657.25
312	11.08 08:30:00	0:15:00	4,112.78	1,028.19	2,030.09	507.52	8,532.02	2,133.00
312	11.08 08:45:00	0:15:00	2,847.23	711.81	2,040.51	510.13	9,787.14	2,446.79
312	11.08 09:00:00	0:15:00	2,228.35	557.09	2,071.28	517.82	10,375.25	2,593.81
312	11.08 09:15:00	0:15:00	2,106.02	526.50	2,035.30	508.82	10,533.56	2,633.39
312	11.08 09:30:00	0:15:00	2,080.96	520.24	2,054.16	513.54	10,539.77	2,634.94
312	11.08 09:45:00	0:15:00	2,064.08	516.02	2,130.83	532.71	10,479.96	2,619.99
312	11.08 10:00:00	0:15:00	2,046.22	511.55	2,123.88	530.97	10,504.78	2,626.20
312	11.08 10:15:00	0:15:00	2,036.79	509.20	2,148.70	537.18	10,489.39	2,622.35
312	11.08 10:30:00	0:15:00	1,993.11	498.28	2,151.68	537.92	10,530.09	2,632.52
312	11.08 10:45:00	0:15:00	1,956.14	489.03	2,167.81	541.95	10,550.93	2,637.73
312	11.08 11:00:00	0:15:00	1,921.40	480.35	2,161.60	540.40	10,591.88	2,647.97
312	11.08 11:15:00	0:15:00	1,901.05	475.26	2,233.32	558.33	10,540.51	2,635.13
312	11.08 11:30:00	0:15:00	1,876.23	469.06	2,268.55	567.14	10,530.09	2,632.52
312	11.08 11:45:00	0:15:00	1,864.08	466.02	2,335.06	583.76	10,475.75	2,618.94
312	11.08 12:00:00	0:15:00	1,914.20	478.55	2,391.88	597.97	10,368.79	2,592.20
312	11.08 12:15:00	0:15:00	2,020.66	505.16	2,373.52	593.38	10,280.70	2,570.18
312	11.08 12:30:00	0:15:00	2,273.27	568.32	2,334.06	583.52	10,067.54	2,516.89
312	11.08 12:45:00	0:15:00	2,609.26	652.32	2,783.21	695.80	9,282.41	2,320.60
312	11.08 13:00:00	0:15:00	2,962.87	740.72	3,295.63	823.91	8,416.38	2,104.10
312	11.08 13:15:00	0:15:00	3,330.87	832.72	3,859.17	964.79	7,484.84	1,871.21
312	11.08 13:30:00	0:15:00	3,706.31	926.58	4,416.26	1,104.07	6,552.30	1,638.08
312	11.08 13:45:00	0:15:00	4,110.79	1,027.70	5,556.49	1,389.12	5,007.59	1,251.90
312	11.08 14:00:00	0:15:00	4,534.38	1,133.59	7,193.76	1,798.44	2,946.74	736.68
312	11.08 14:15:00	0:15:00	4,997.67	1,249.42	9,044.93	2,261.23	632.28	158.07
312	11.08 14:30:00	0:15:00	5,508.85	1,377.21	9,166.03	2,291.51	0.00	0.00
312	11.08 14:45:00	0:15:00	6,188.27	1,547.07	8,486.60	2,121.65	0.00	0.00
312	11.08 15:00:00	0:15:00	7,149.34	1,787.34	7,525.53	1,881.38	0.00	0.00
312	11.08 15:15:00	0:15:00	8,441.19	2,110.30	6,233.68	1,558.42	0.00	0.00
312	11.08 15:30:00	0:15:00	9,789.62	2,447.41	4,885.26	1,221.31	0.00	0.00
312	11.08 15:45:00	0:15:00	10,851.69	2,712.92	3,823.19	955.80	0.00	0.00
312	11.08 16:00:00	0:09:00	12,633.87	1,895.08	2,041.00	306.15	0.00	0.00
312	11.08 16:03:00	0:01:48	13,170.37	395.11	1,504.51	45.14	0.00	0.00
319	11.15 07:51:00	0:04:48	12,537.84	1,003.03	816.15	65.29	1,320.88	105.67
319	11.15 08:00:00	0:12:00	10,828.86	2,165.77	783.15	156.63	3,062.87	612.57
319	11.15 08:15:00	0:15:00	7,638.69	1,909.67	1,547.44	386.86	5,488.75	1,372.19
319	11.15 08:30:00	0:15:00	4,731.90	1,182.98	2,254.66	563.66	7,688.32	1,922.08
319	11.15 08:45:00	0:15:00	3,266.35	816.59	2,315.70	578.93	9,092.83	2,273.21
319	11.15 09:00:00	0:15:00	2,410.00	602.50	2,389.65	597.41	9,875.23	2,468.81
319	11.15 09:15:00	0:15:00	2,177.48	544.37	2,437.29	609.32	10,060.10	2,515.03
319	11.15 09:30:00	0:15:00	2,147.21	536.80	2,348.95	587.24	10,178.71	2,544.68
319	11.15 09:45:00	0:15:00	2,127.61	531.90	2,389.90	597.47	10,157.37	2,539.34
319	11.15 10:00:00	0:15:00	2,106.27	526.57	2,480.97	620.24	10,087.64	2,521.91
319	11.15 10:15:00	0:15:00	2,093.11	523.28	2,495.86	623.96	10,085.91	2,521.48
319	11.15 10:30:00	0:15:00	2,050.68	512.67	2,459.63	614.91	10,164.57	2,541.14
319	11.15 10:45:00	0:15:00	2,012.72	503.18	2,486.92	621.73	10,175.24	2,543.81
319	11.15 11:00:00	0:15:00	1,975.74	493.94	2,498.34	624.58	10,200.80	2,550.20
319	11.15 11:15:00	0:15:00	1,952.66	488.17	2,600.57	650.14	10,121.64	2,530.41
319	11.15 11:30:00	0:15:00	1,929.09	482.27	2,657.90	664.47	10,087.89	2,521.97
319	11.15 11:45:00	0:15:00	1,915.44	478.86	2,743.51	685.88	10,015.93	2,503.98
319	11.15 12:00:00	0:15:00	1,963.58	490.90	2,784.70	696.17	9,926.60	2,481.65
319	11.15 12:15:00	0:15:00	2,077.98	519.49	2,769.56	692.39	9,827.34	2,456.84
319	11.15 12:30:00	0:15:00	2,328.11	582.03	2,718.20	679.55	9,628.57	2,407.14
319	11.15 12:45:00	0:15:00	2,663.35	665.84	3,252.21	813.05	8,759.32	2,189.83



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
319	11.15 13:00:00	0:15:00	3,016.72	754.18	3,785.47	946.37	7,872.69	1,968.17
319	11.15 13:15:00	0:15:00	3,388.44	847.11	4,365.14	1,091.29	6,921.30	1,730.32
319	11.15 13:30:00	0:15:00	3,768.10	942.03	4,963.42	1,240.86	5,943.35	1,485.84
319	11.15 13:45:00	0:15:00	4,169.35	1,042.34	6,267.68	1,566.92	4,237.84	1,059.46
319	11.15 14:00:00	0:15:00	4,590.71	1,147.68	7,867.98	1,966.99	2,216.20	554.05
319	11.15 14:15:00	0:15:00	5,043.82	1,260.96	9,631.06	2,407.76	0.00	0.00
319	11.15 14:30:00	0:15:00	5,565.18	1,391.29	9,109.70	2,277.43	0.00	0.00
319	11.15 14:45:00	0:15:00	6,290.26	1,572.57	8,384.62	2,096.15	0.00	0.00
319	11.15 15:00:00	0:15:00	7,337.19	1,834.30	7,337.69	1,834.42	0.00	0.00
319	11.15 15:15:00	0:15:00	8,613.66	2,153.41	6,061.22	1,515.31	0.00	0.00
319	11.15 15:30:00	0:15:00	9,791.85	2,447.96	4,883.02	1,220.76	0.00	0.00
319	11.15 15:45:00	0:13:48	11,083.46	2,549.20	3,591.42	826.03	0.00	0.00
319	11.15 15:57:36	0:06:36	12,979.54	1,427.75	1,695.34	186.49	0.00	0.00
326	11.22 07:57:36	0:01:12	13,460.95	269.22	185.61	3.71	1,028.32	20.57
326	11.22 08:00:00	0:09:00	13,123.71	1,968.56	51.37	7.71	1,499.80	224.97
326	11.22 08:15:00	0:15:00	9,656.61	2,414.15	771.74	192.93	4,246.53	1,061.63
326	11.22 08:30:00	0:15:00	5,958.74	1,489.68	2,115.20	528.80	6,600.94	1,650.24
326	11.22 08:45:00	0:15:00	3,720.71	930.18	2,584.44	646.11	8,369.73	2,092.43
326	11.22 09:00:00	0:15:00	2,666.58	666.65	2,691.15	672.79	9,317.15	2,329.29
326	11.22 09:15:00	0:15:00	2,254.16	563.54	2,834.58	708.64	9,586.14	2,396.54
326	11.22 09:30:00	0:15:00	2,215.45	553.86	2,825.64	706.41	9,633.78	2,408.45
326	11.22 09:45:00	0:15:00	2,189.15	547.29	2,819.69	704.92	9,666.04	2,416.51
326	11.22 10:00:00	0:15:00	2,161.85	540.46	2,842.76	710.69	9,670.26	2,417.57
326	11.22 10:15:00	0:15:00	2,147.46	536.87	2,868.57	717.14	9,658.85	2,414.71
326	11.22 10:30:00	0:15:00	2,108.75	527.19	2,841.77	710.44	9,724.36	2,431.09
326	11.22 10:45:00	0:15:00	2,066.31	516.58	2,886.69	721.67	9,721.88	2,430.47
326	11.22 11:00:00	0:15:00	2,026.12	506.53	2,874.03	718.51	9,774.73	2,443.68
326	11.22 11:15:00	0:15:00	2,001.30	500.33	2,964.36	741.09	9,709.22	2,427.31
326	11.22 11:30:00	0:15:00	1,977.73	494.43	3,023.66	755.92	9,673.49	2,418.37
326	11.22 11:45:00	0:15:00	1,964.08	491.02	3,128.63	782.16	9,582.17	2,395.54
326	11.22 12:00:00	0:15:00	2,007.75	501.94	3,196.62	799.16	9,470.50	2,367.63
326	11.22 12:15:00	0:15:00	2,118.67	529.67	3,175.78	793.94	9,380.43	2,345.11
326	11.22 12:30:00	0:15:00	2,360.62	590.15	3,106.79	776.70	9,207.47	2,301.87
326	11.22 12:45:00	0:15:00	2,693.88	673.47	3,664.87	916.22	8,316.13	2,079.03
326	11.22 13:00:00	0:15:00	3,044.51	761.13	4,199.63	1,049.91	7,430.74	1,857.69
326	11.22 13:15:00	0:15:00	3,418.22	854.55	4,789.47	1,197.37	6,467.19	1,616.80
326	11.22 13:30:00	0:15:00	3,795.15	948.79	5,419.52	1,354.88	5,460.21	1,365.05
326	11.22 13:45:00	0:15:00	4,190.20	1,047.55	6,795.98	1,699.00	3,688.70	922.17
326	11.22 14:00:00	0:15:00	4,606.09	1,151.52	8,346.40	2,086.60	1,722.38	430.60
326	11.22 14:15:00	0:15:00	5,050.27	1,262.57	9,624.60	2,406.15	0.00	0.00
326	11.22 14:30:00	0:15:00	5,577.34	1,394.33	9,097.54	2,274.39	0.00	0.00
326	11.22 14:45:00	0:15:00	6,341.38	1,585.35	8,333.50	2,083.37	0.00	0.00
326	11.22 15:00:00	0:15:00	7,388.81	1,847.20	7,286.07	1,821.52	0.00	0.00
326	11.22 15:15:00	0:15:00	8,629.04	2,157.26	6,045.84	1,511.46	0.00	0.00
326	11.22 15:30:00	0:15:00	9,789.37	2,447.34	4,885.51	1,221.38	0.00	0.00
326	11.22 15:45:00	0:12:00	11,304.31	2,260.86	3,370.57	674.11	0.00	0.00
326	11.22 15:54:00	0:04:48	13,153.49	1,052.28	1,521.39	121.71	0.00	0.00
333	11.29 08:04:12	0:05:24	14,133.42	1,272.01	0.00	0.00	541.46	48.73
333	11.29 08:15:00	0:12:36	11,497.12	2,414.39	226.56	47.58	2,951.20	619.75
333	11.29 08:30:00	0:15:00	7,998.50	1,999.63	1,234.78	308.69	5,441.60	1,360.40
333	11.29 08:45:00	0:15:00	4,565.64	1,141.41	2,565.83	641.46	7,543.40	1,885.85
333	11.29 09:00:00	0:15:00	3,003.56	750.89	2,938.80	734.70	8,732.52	2,183.13
333	11.29 09:15:00	0:15:00	2,390.89	597.72	3,142.28	785.57	9,141.71	2,285.43
333	11.29 09:30:00	0:15:00	2,270.54	567.64	3,191.41	797.85	9,212.93	2,303.23
333	11.29 09:45:00	0:15:00	2,245.23	561.31	3,222.18	805.55	9,207.47	2,301.87
333	11.29 10:00:00	0:15:00	2,213.47	553.37	3,240.54	810.14	9,220.87	2,305.22
333	11.29 10:15:00	0:15:00	2,196.84	549.21	3,320.69	830.17	9,157.34	2,289.34



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
333	11.29 10:30:00	0:15:00	2,163.59	540.90	3,211.26	802.82	9,300.03	2,325.01
333	11.29 10:45:00	0:15:00	2,117.93	529.48	3,228.63	807.16	9,328.32	2,332.08
333	11.29 11:00:00	0:15:00	2,072.77	518.19	3,220.44	805.11	9,381.67	2,345.42
333	11.29 11:15:00	0:15:00	2,043.73	510.93	3,298.11	824.53	9,333.03	2,333.26
333	11.29 11:30:00	0:15:00	2,019.42	504.85	3,340.79	835.20	9,314.67	2,328.67
333	11.29 11:45:00	0:15:00	2,005.02	501.26	3,446.50	861.63	9,223.35	2,305.84
333	11.29 12:00:00	0:15:00	2,029.84	507.46	3,584.72	896.18	9,060.32	2,265.08
333	11.29 12:15:00	0:15:00	2,133.07	533.27	3,540.55	885.14	9,001.26	2,250.32
333	11.29 12:30:00	0:15:00	2,372.03	593.01	3,445.76	861.44	8,857.09	2,214.27
333	11.29 12:45:00	0:15:00	2,696.36	674.09	3,983.49	995.87	7,995.03	1,998.76
333	11.29 13:00:00	0:15:00	3,048.97	762.24	4,530.41	1,132.60	7,095.50	1,773.87
333	11.29 13:15:00	0:15:00	3,419.21	854.80	5,117.03	1,279.26	6,138.64	1,534.66
333	11.29 13:30:00	0:15:00	3,794.90	948.73	5,770.15	1,442.54	5,109.83	1,277.46
333	11.29 13:45:00	0:15:00	4,183.00	1,045.75	7,132.97	1,783.24	3,358.91	839.73
333	11.29 14:00:00	0:15:00	4,591.70	1,147.93	8,635.24	2,158.81	1,447.93	361.98
333	11.29 14:15:00	0:15:00	5,023.47	1,255.87	9,651.40	2,412.85	0.00	0.00
333	11.29 14:30:00	0:15:00	5,542.10	1,385.53	9,132.78	2,283.19	0.00	0.00
333	11.29 14:45:00	0:15:00	6,322.52	1,580.63	8,352.36	2,088.09	0.00	0.00
333	11.29 15:00:00	0:15:00	7,366.97	1,841.74	7,307.91	1,826.98	0.00	0.00
333	11.29 15:15:00	0:15:00	8,515.14	2,128.79	6,159.74	1,539.93	0.00	0.00
333	11.29 15:30:00	0:15:00	9,715.43	2,428.86	4,959.45	1,239.86	0.00	0.00
333	11.29 15:45:00	0:10:48	11,618.46	2,091.32	3,056.42	550.16	0.00	0.00
333	11.29 15:51:36	0:03:00	13,407.59	670.38	1,267.28	63.36	0.00	0.00
340	12.06 08:10:12	0:02:24	14,458.25	578.33	0.00	0.00	216.63	8.67
340	12.06 08:15:00	0:10:12	13,525.46	2,299.33	0.00	0.00	1,149.41	195.40
340	12.06 08:30:00	0:15:00	9,565.05	2,391.26	793.08	198.27	4,316.75	1,079.19
340	12.06 08:45:00	0:15:00	6,366.94	1,591.74	1,738.76	434.69	6,569.18	1,642.29
340	12.06 09:00:00	0:15:00	3,354.94	838.74	3,109.03	777.26	8,210.91	2,052.73
340	12.06 09:15:00	0:15:00	2,540.52	635.13	3,347.99	837.00	8,786.37	2,196.59
340	12.06 09:30:00	0:15:00	2,320.66	580.17	3,476.53	869.13	8,877.68	2,219.42
340	12.06 09:45:00	0:15:00	2,290.14	572.54	3,529.88	882.47	8,854.85	2,213.71
340	12.06 10:00:00	0:15:00	2,256.15	564.04	3,537.33	884.33	8,881.41	2,220.35
340	12.06 10:15:00	0:15:00	2,234.81	558.70	3,669.59	917.40	8,770.48	2,192.62
340	12.06 10:30:00	0:15:00	2,209.25	552.31	3,571.32	892.83	8,894.31	2,223.58
340	12.06 10:45:00	0:15:00	2,160.61	540.15	3,576.29	894.07	8,937.98	2,234.50
340	12.06 11:00:00	0:15:00	2,111.48	527.87	3,509.29	877.32	9,054.12	2,263.53
340	12.06 11:15:00	0:15:00	2,080.96	520.24	3,559.41	889.85	9,034.51	2,258.63
340	12.06 11:30:00	0:15:00	2,054.16	513.54	3,588.94	897.24	9,031.78	2,257.95
340	12.06 11:45:00	0:15:00	2,038.03	509.51	3,708.55	927.14	8,928.30	2,232.08
340	12.06 12:00:00	0:15:00	2,064.08	516.02	3,858.43	964.61	8,752.37	2,188.09
340	12.06 12:15:00	0:15:00	2,159.87	539.97	3,812.52	953.13	8,702.49	2,175.62
340	12.06 12:30:00	0:15:00	2,362.85	590.71	3,710.53	927.63	8,601.50	2,150.37
340	12.06 12:45:00	0:15:00	2,672.78	668.20	4,188.21	1,047.05	7,813.88	1,953.47
340	12.06 13:00:00	0:15:00	3,025.15	756.29	4,744.56	1,186.14	6,905.17	1,726.29
340	12.06 13:15:00	0:15:00	3,392.16	848.04	5,330.68	1,332.67	5,952.04	1,488.01
340	12.06 13:30:00	0:15:00	3,764.13	941.03	5,963.20	1,490.80	4,947.54	1,236.89
340	12.06 13:45:00	0:15:00	4,150.99	1,037.75	7,280.37	1,820.09	3,243.52	810.88
340	12.06 14:00:00	0:15:00	4,551.75	1,137.94	8,731.28	2,182.82	1,391.85	347.96
340	12.06 14:15:00	0:15:00	4,972.85	1,243.21	9,701.78	2,425.44	0.25	0.06
340	12.06 14:30:00	0:15:00	5,468.40	1,367.10	9,206.48	2,301.62	0.00	0.00
340	12.06 14:45:00	0:15:00	6,242.87	1,560.72	8,432.01	2,108.00	0.00	0.00
340	12.06 15:00:00	0:15:00	7,254.81	1,813.70	7,420.07	1,855.02	0.00	0.00
340	12.06 15:15:00	0:15:00	8,340.20	2,085.05	6,334.68	1,583.67	0.00	0.00
340	12.06 15:30:00	0:15:00	9,579.69	2,394.92	5,095.19	1,273.80	0.00	0.00
340	12.06 15:45:00	0:10:12	11,816.98	2,008.89	2,857.90	485.84	0.00	0.00
340	12.06 15:51:00	0:03:00	13,564.67	678.23	1,110.21	55.51	0.00	0.00
347	12.13 08:15:36	0:07:12	14,602.17	1,752.26	0.00	0.00	72.71	8.73



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
347	12.13 08:30:00	0:15:00	11,069.56	2,767.39	327.31	81.83	3,278.01	819.50
347	12.13 08:45:00	0:15:00	7,677.15	1,919.29	1,325.35	331.34	5,672.38	1,418.09
347	12.13 09:00:00	0:15:00	4,430.40	1,107.60	2,617.20	654.30	7,627.27	1,906.82
347	12.13 09:15:00	0:15:00	2,748.72	687.18	3,435.59	858.90	8,490.57	2,122.64
347	12.13 09:30:00	0:15:00	2,359.87	589.97	3,616.24	904.06	8,698.77	2,174.69
347	12.13 09:45:00	0:15:00	2,325.38	581.35	3,717.23	929.31	8,632.27	2,158.07
347	12.13 10:00:00	0:15:00	2,289.89	572.47	3,715.99	929.00	8,668.99	2,167.25
347	12.13 10:15:00	0:15:00	2,264.83	566.21	3,862.89	965.72	8,547.15	2,136.79
347	12.13 10:30:00	0:15:00	2,235.55	558.89	3,816.99	954.25	8,622.34	2,155.59
347	12.13 10:45:00	0:15:00	2,194.36	548.59	3,818.23	954.56	8,662.29	2,165.57
347	12.13 11:00:00	0:15:00	2,141.75	535.44	3,760.16	940.04	8,772.97	2,193.24
347	12.13 11:15:00	0:15:00	2,108.25	527.06	3,796.39	949.10	8,770.24	2,192.56
347	12.13 11:30:00	0:15:00	2,077.73	519.43	3,752.72	938.18	8,844.43	2,211.11
347	12.13 11:45:00	0:15:00	2,062.84	515.71	3,854.46	963.61	8,757.58	2,189.40
347	12.13 12:00:00	0:15:00	2,065.07	516.27	4,029.40	1,007.35	8,580.40	2,145.10
347	12.13 12:15:00	0:15:00	2,156.89	539.22	4,010.04	1,002.51	8,507.95	2,126.99
347	12.13 12:30:00	0:15:00	2,328.85	582.21	3,894.16	973.54	8,451.86	2,112.97
347	12.13 12:45:00	0:15:00	2,629.11	657.28	4,261.67	1,065.42	7,784.10	1,946.03
347	12.13 13:00:00	0:15:00	2,973.79	743.45	4,818.75	1,204.69	6,882.34	1,720.59
347	12.13 13:15:00	0:15:00	3,342.53	835.63	5,442.10	1,360.52	5,890.25	1,472.56
347	12.13 13:30:00	0:15:00	3,708.80	927.20	6,020.77	1,505.19	4,945.31	1,236.33
347	12.13 13:45:00	0:15:00	4,089.45	1,022.36	7,242.90	1,810.72	3,342.53	835.63
347	12.13 14:00:00	0:15:00	4,481.52	1,120.38	8,628.30	2,157.07	1,565.06	391.27
347	12.13 14:15:00	0:15:00	4,901.39	1,225.35	9,773.49	2,443.37	0.00	0.00
347	12.13 14:30:00	0:15:00	5,370.13	1,342.53	9,304.74	2,326.19	0.00	0.00
347	12.13 14:45:00	0:15:00	6,100.18	1,525.05	8,574.70	2,143.67	0.00	0.00
347	12.13 15:00:00	0:15:00	7,071.43	1,767.86	7,603.45	1,900.86	0.00	0.00
347	12.13 15:15:00	0:15:00	8,129.77	2,032.44	6,545.11	1,636.28	0.00	0.00
347	12.13 15:30:00	0:15:00	9,356.36	2,339.09	5,318.52	1,329.63	0.00	0.00
347	12.13 15:45:00	0:10:48	11,493.39	2,068.81	3,181.48	572.67	0.00	0.00
347	12.13 15:52:11	0:03:36	13,702.89	822.17	971.99	58.32	0.00	0.00
354	12.20 08:19:48	0:04:48	14,620.53	1,169.64	0.00	0.00	54.34	4.35
354	12.20 08:30:00	0:12:36	12,341.56	2,591.73	19.36	4.07	2,313.96	485.93
354	12.20 08:45:00	0:15:00	8,635.74	2,158.94	1,043.21	260.80	4,995.93	1,248.98
354	12.20 09:00:00	0:15:00	5,331.67	1,332.92	2,205.52	551.38	7,137.68	1,784.42
354	12.20 09:15:00	0:15:00	2,967.83	741.96	3,423.92	855.98	8,283.12	2,070.78
354	12.20 09:30:00	0:15:00	2,418.19	604.55	3,640.56	910.14	8,616.14	2,154.03
354	12.20 09:45:00	0:15:00	2,341.51	585.38	3,783.74	945.93	8,549.63	2,137.41
354	12.20 10:00:00	0:15:00	2,307.51	576.88	3,777.53	944.38	8,589.83	2,147.46
354	12.20 10:15:00	0:15:00	2,280.47	570.12	3,921.70	980.43	8,472.71	2,118.18
354	12.20 10:30:00	0:15:00	2,249.94	562.49	3,925.18	981.30	8,499.76	2,124.94
354	12.20 10:45:00	0:15:00	2,215.20	553.80	3,915.50	978.88	8,544.17	2,136.04
354	12.20 11:00:00	0:15:00	2,161.60	540.40	3,862.15	965.54	8,651.13	2,162.78
354	12.20 11:15:00	0:15:00	2,122.40	530.60	3,897.88	974.47	8,654.60	2,163.65
354	12.20 11:30:00	0:15:00	2,091.63	522.91	3,844.78	961.20	8,738.47	2,184.62
354	12.20 11:45:00	0:15:00	2,074.01	518.50	3,930.89	982.72	8,669.98	2,167.50
354	12.20 12:00:00	0:15:00	2,059.12	514.78	4,045.03	1,011.26	8,570.73	2,142.68
354	12.20 12:15:00	0:15:00	2,141.26	535.31	4,097.14	1,024.29	8,436.48	2,109.12
354	12.20 12:30:00	0:15:00	2,287.17	571.79	3,982.50	995.63	8,405.21	2,101.30
354	12.20 12:45:00	0:15:00	2,565.09	641.27	4,197.89	1,049.47	7,911.90	1,977.97
354	12.20 13:00:00	0:15:00	2,904.30	726.08	4,779.30	1,194.83	6,991.27	1,747.82
354	12.20 13:15:00	0:15:00	3,269.58	817.39	5,410.58	1,352.65	5,994.72	1,498.68
354	12.20 13:30:00	0:15:00	3,634.60	908.65	5,960.23	1,490.06	5,080.05	1,270.01
354	12.20 13:45:00	0:15:00	4,011.53	1,002.88	7,035.44	1,758.86	3,627.90	906.98
354	12.20 14:00:00	0:15:00	4,401.62	1,100.41	8,412.66	2,103.16	1,860.60	465.15
354	12.20 14:15:00	0:15:00	4,814.78	1,203.70	9,860.09	2,465.02	0.00	0.00
354	12.20 14:30:00	0:15:00	5,258.22	1,314.56	9,416.66	2,354.16	0.00	0.00



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1997 Mission - ALTERNATIVE E: Reduced Shadow Alternative 1 (Reduced Capp Component, 35-foot setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
354	12.20 14:45:00	0:15:00	5,923.50	1,480.88	8,751.38	2,187.84	0.00	0.00
354	12.20 15:00:00	0:15:00	6,863.48	1,715.87	7,811.40	1,952.85	0.00	0.00
354	12.20 15:15:00	0:15:00	7,886.34	1,971.59	6,788.54	1,697.14	0.00	0.00
354	12.20 15:30:00	0:15:00	9,083.40	2,270.85	5,591.48	1,397.87	0.00	0.00
354	12.20 15:45:00	0:12:36	10,865.09	2,281.67	3,809.79	800.06	0.00	0.00
354	12.20 15:54:36	0:04:48	13,687.75	1,095.02	987.13	78.97	0.00	0.00
			5,096,523.81	1,132,313.36	1,876,115.44	463,442.77	9,842,904.58	2,449,080.16

EXHIBIT K.1

1979 Mission Street Shadow Projection Graphics

ALTERNATIVE F

Reduced Shadow Alternative 3

(Reduced Mission and Capp Components, 70-
foot Setback for Capp Component)



*Not all combinations are not present in every image

1979 Mission Street Shadow Projections Key



1979 Mission Street
June 21 Sunrise +1 Hour (6:47 am)

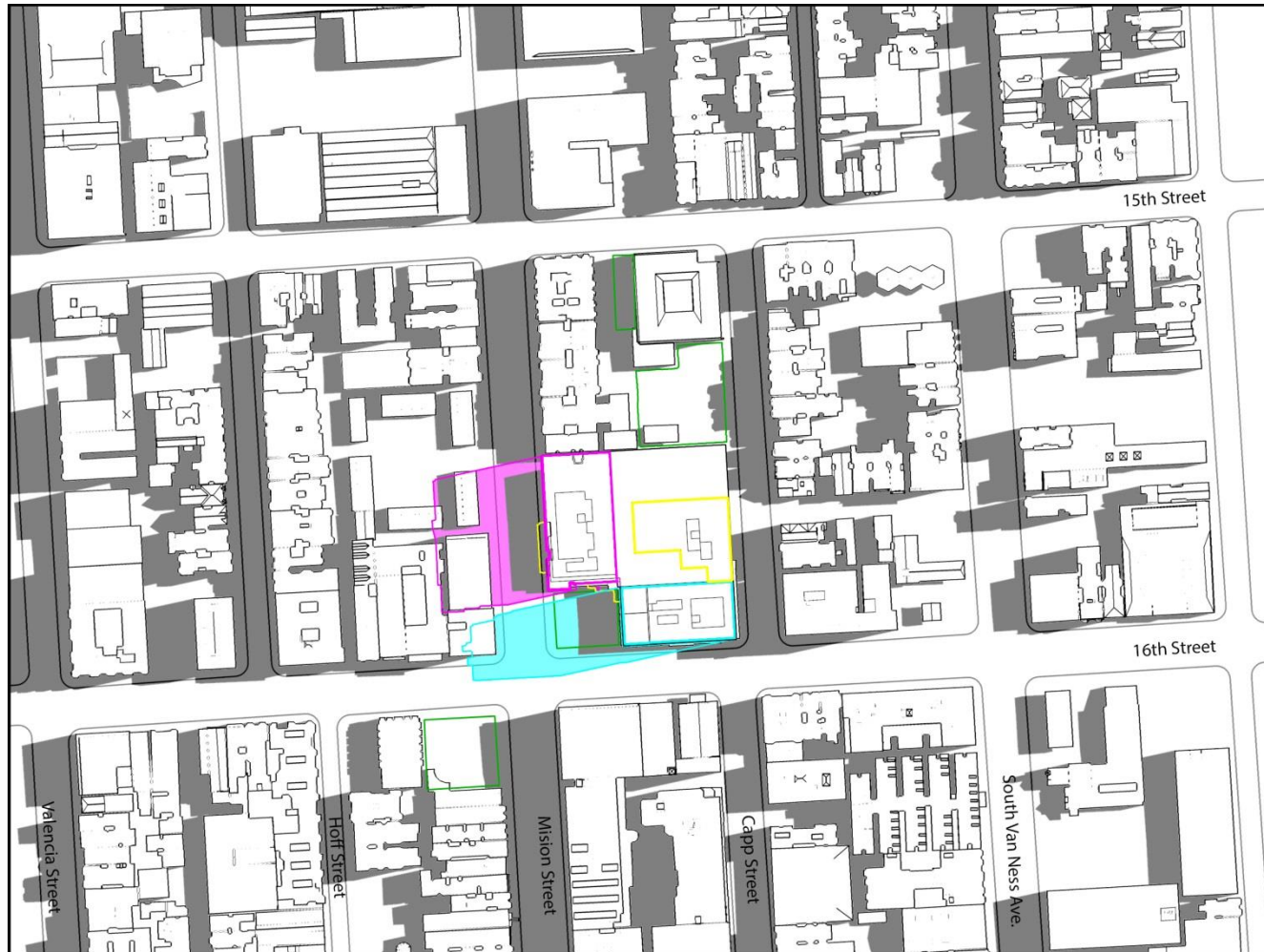
- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 7:00 am

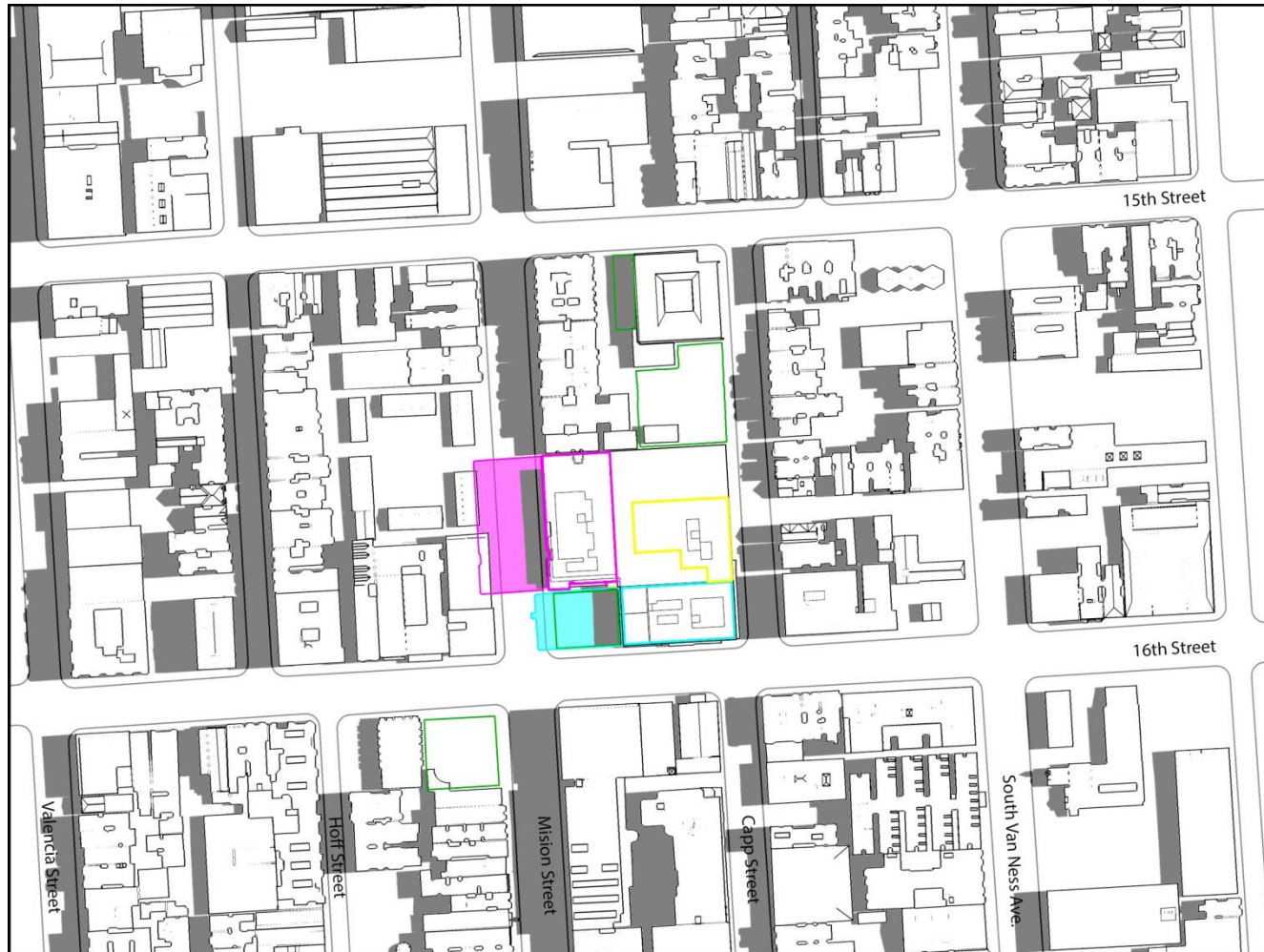
- | | | |
|--|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Combined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |



1979 Mission Street
June 21 8:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 9:00 am

- | | | |
|---|--|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 10:00 am

- | | | |
|---|--|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 11:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 12:00 noon

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 1:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
June 21 2:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 3:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 4:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
June 21 5:00 pm

- | | | |
|---|--|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Combined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 6:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
June 21 7:00 pm

- | | | |
|--|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Combined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
June 21 Sunset -1 Hour (7:36 pm)

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
June 28 9:45 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 Sunrise +1 Hour (7:57 am)

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
September 20 8:00 am

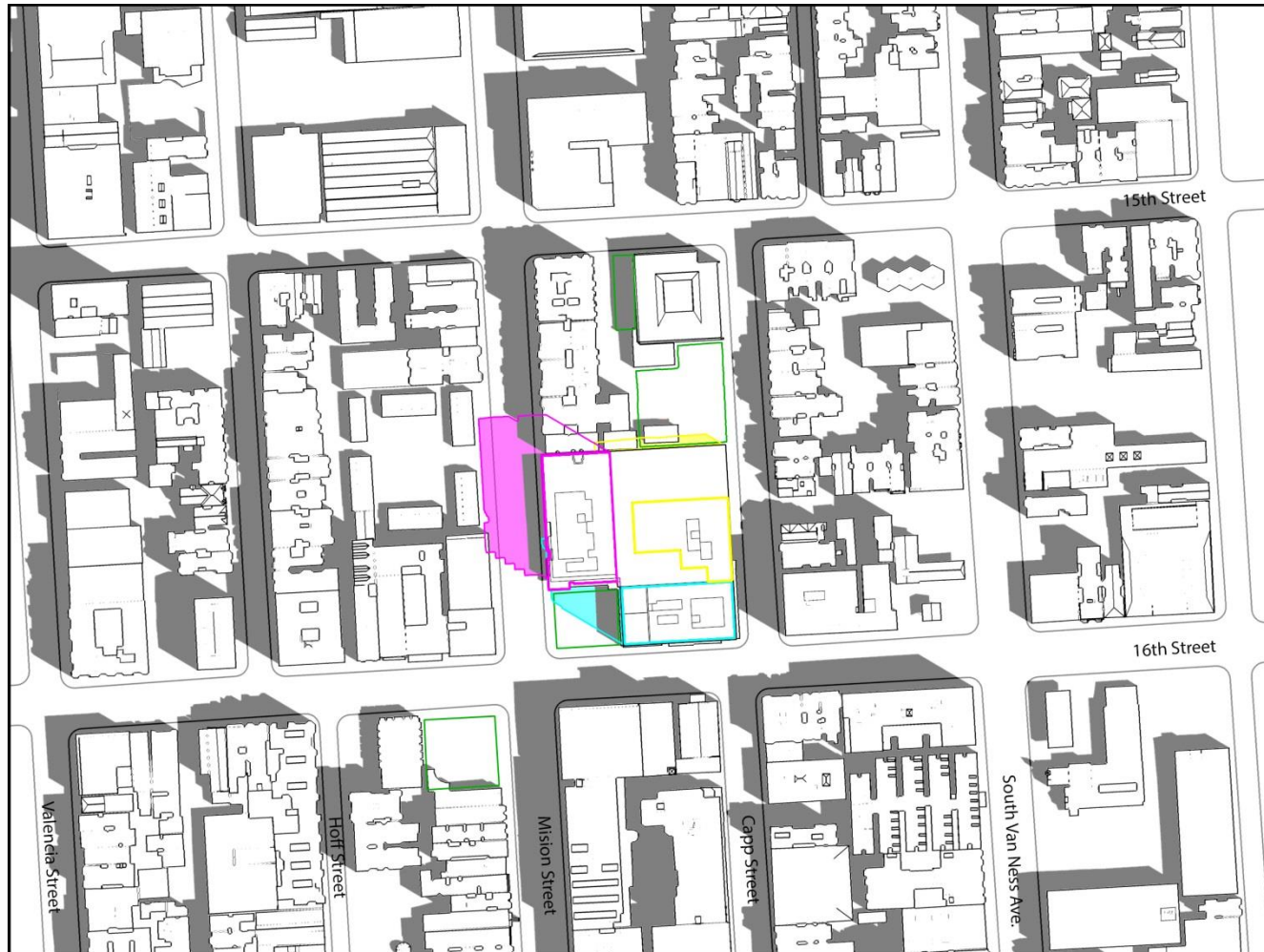
- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
September 20 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |

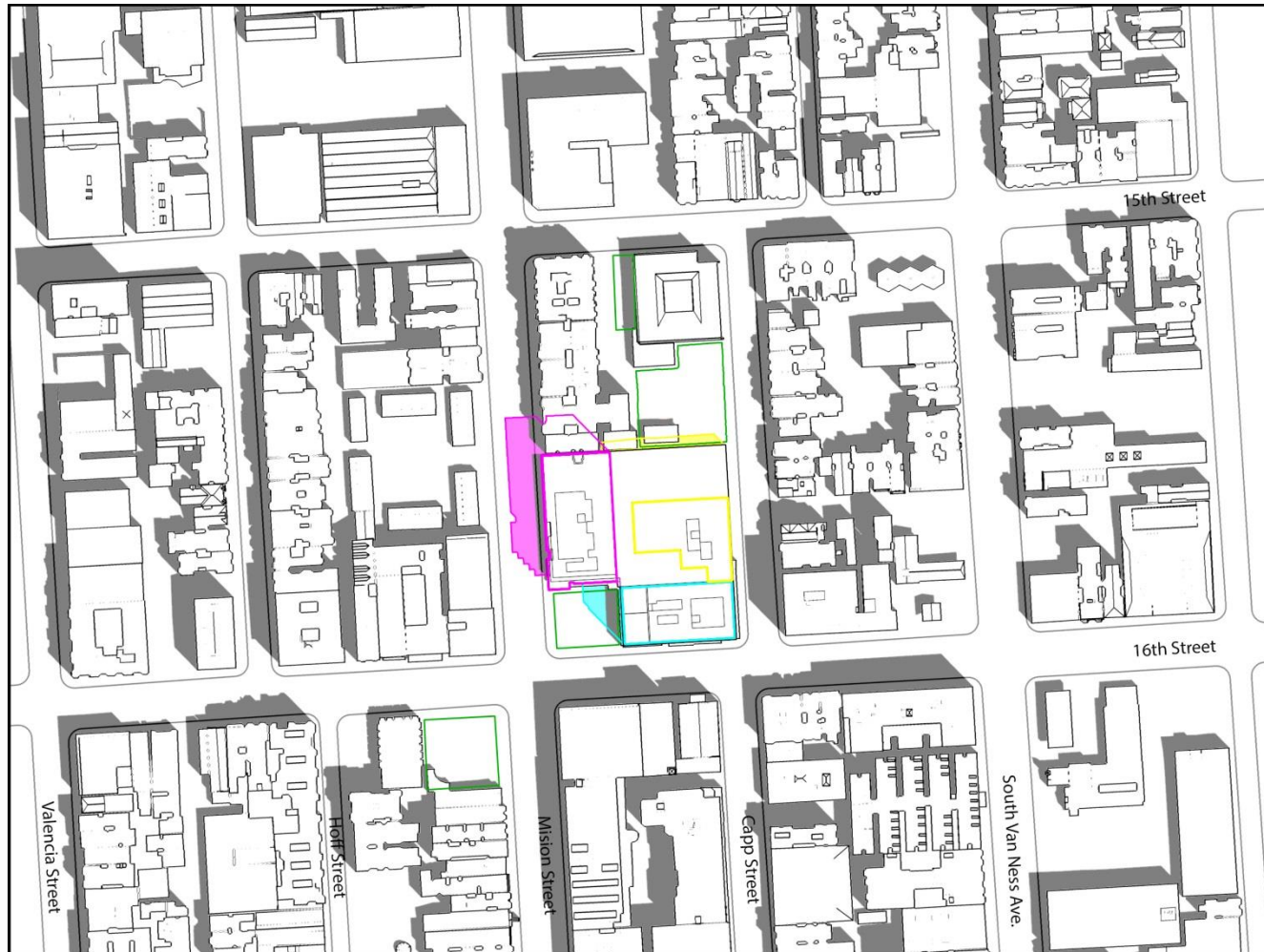




1979 Mission Street
September 20 10:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 11:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 12:00 noon

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 1:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 2:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows

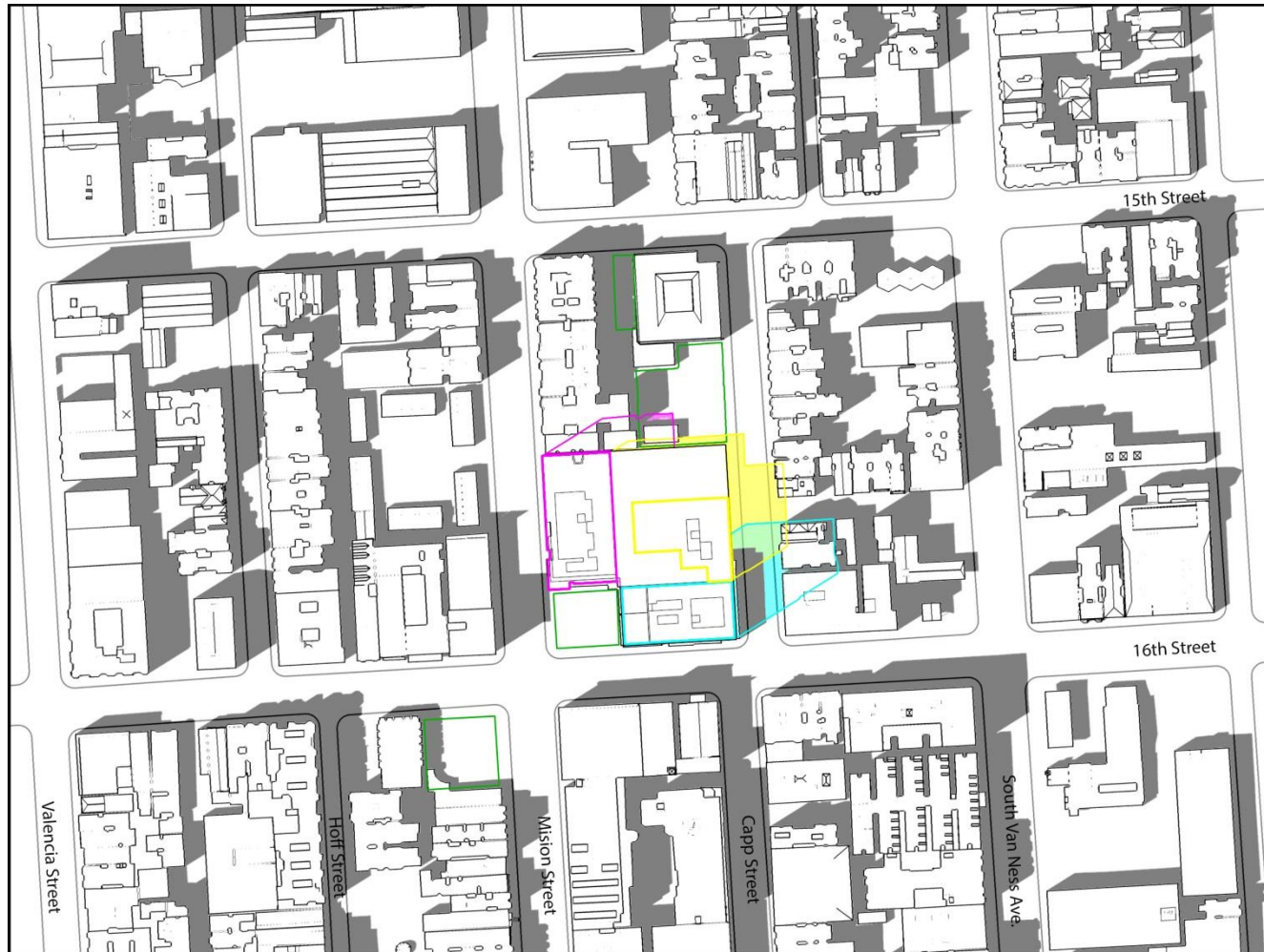




1979 Mission Street
September 20 3:00 pm

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteenth Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
September 20 4:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
September 20 5:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





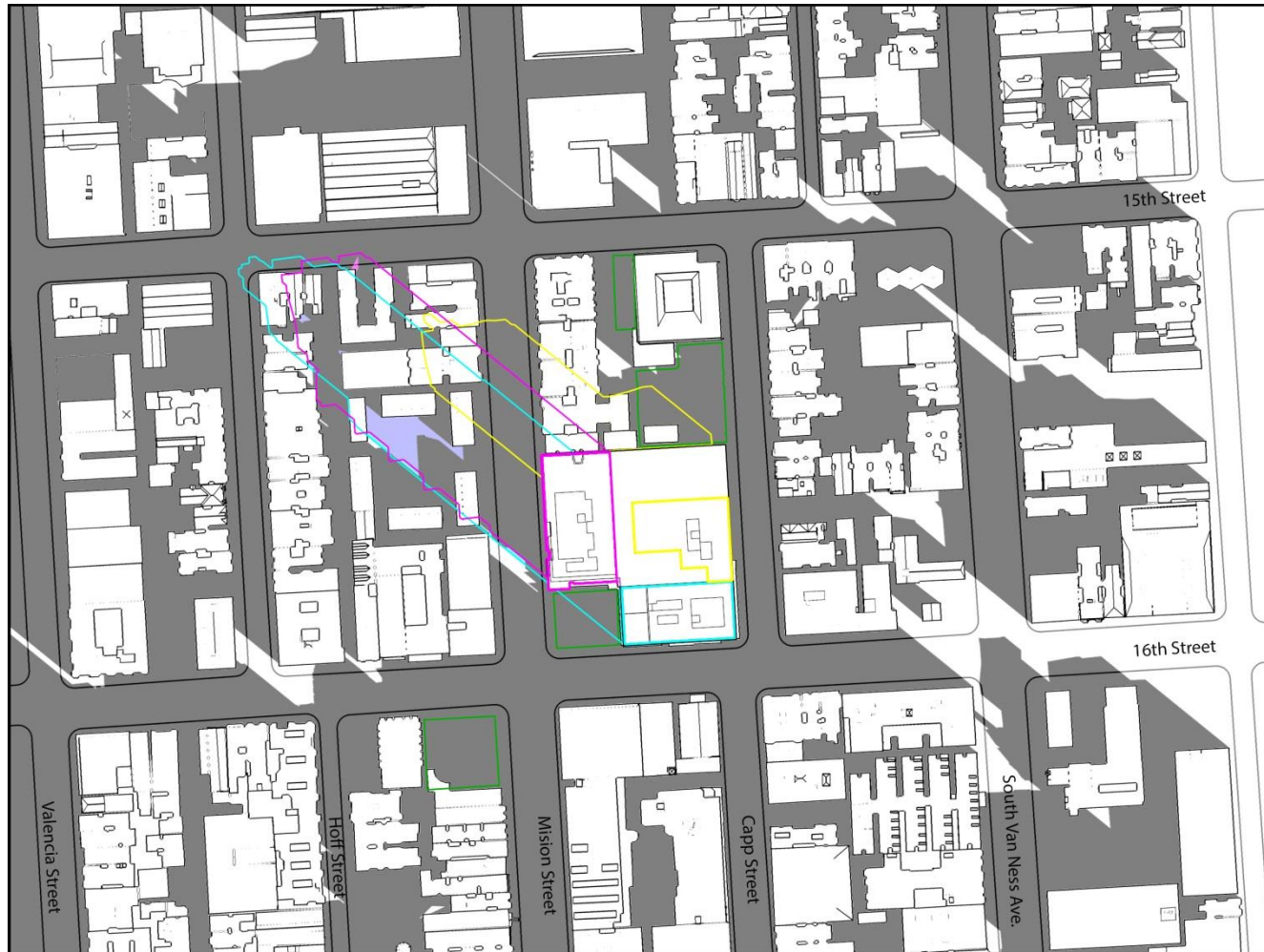
1979 Mission Street
September 20 6:00 pm

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
September 20 Sunset -1 Hour (6:10 pm)

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
December 20 Sunrise +1 Hour (8:20 am)

- | | | |
|--|---|---|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Combined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
December 20 9:00 am

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
December 20 10:00 am

- | | | |
|---|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 11:00 am

- Mission Street Building
- Mission Street Building New Shadows
- Mission and Capp Street Buildings New Combined Shadows
- Mission, Capp and Sixteenth Street Buildings New Combined Shadows
- Capp Street Building
- Capp Street Building New Shadows
- Capp and Sixteenth Street Buildings New Combined Shadows
- Sixteenth Street Building
- Sixteen Street Building New Shadows
- Sixteenth and Mission Street Buildings New Copmbined Shadows
- Existing Shadows





1979 Mission Street
December 20 12:00 noon

- | | | |
|--|---|--|
| Mission Street Building | Capp Street Building | Sixteenth Street Building |
| Mission Street Building New Shadows | Capp Street Building New Shadows | Sixteenth Street Building New Shadows |
| Mission and Capp Street Buildings New Combined Shadows | Capp and Sixteenth Street Buildings New Combined Shadows | Sixteenth and Mission Street Buildings New Copmbined Shadows |
| Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | Existing Shadows |





1979 Mission Street
December 20 12:15 pm

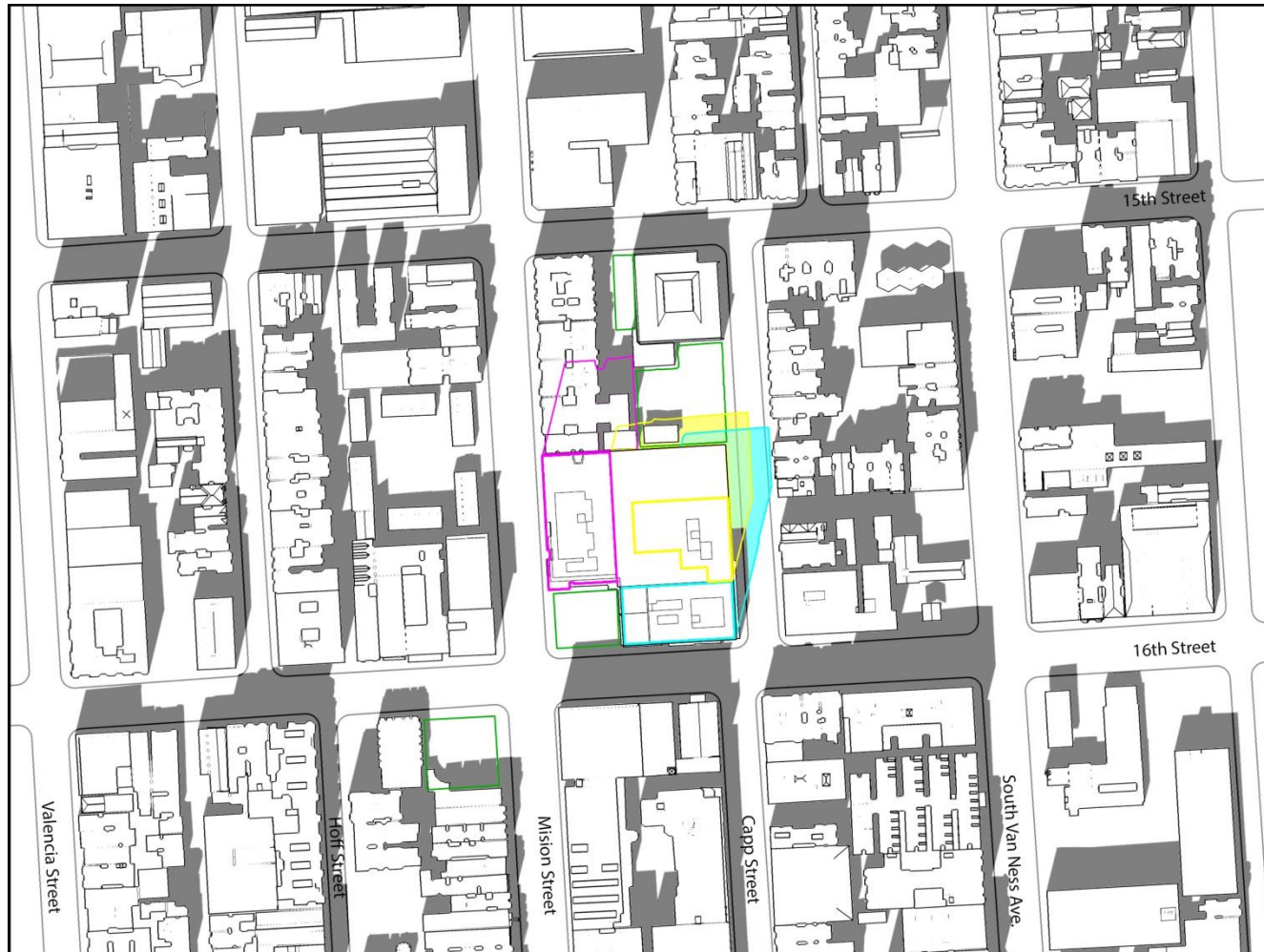
- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 12:45 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
December 20 1:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 2:00 pm

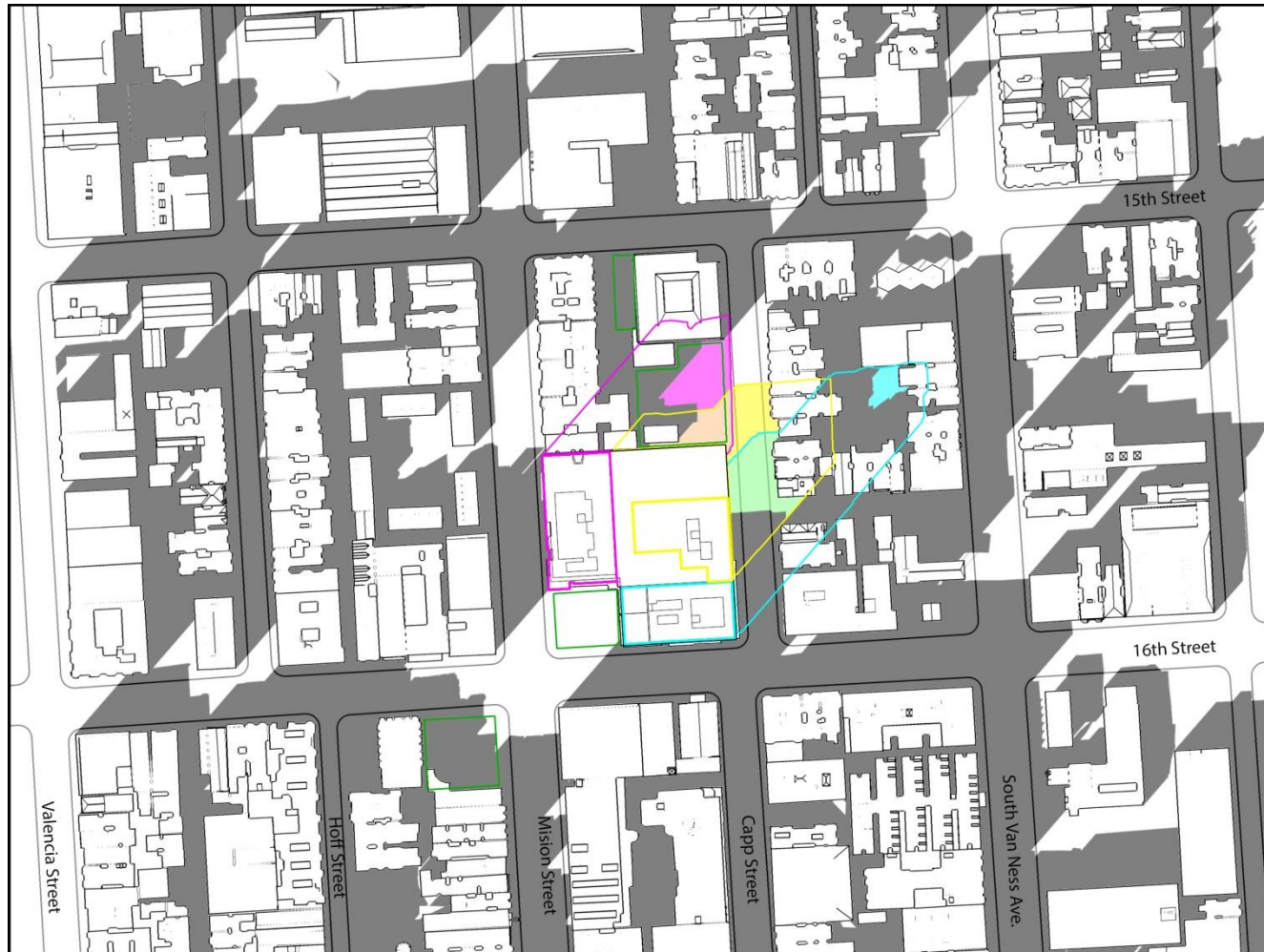
- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Combined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 2:15 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |



1979 Mission Street
December 20 3:00 pm

- | | | |
|--|---|--|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copmbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |





1979 Mission Street
December 20 3:55 pm

- | | | |
|--|---|---|
| ■ Mission Street Building | ■ Capp Street Building | ■ Sixteenth Street Building |
| ■ Mission Street Building New Shadows | ■ Capp Street Building New Shadows | ■ Sixteenth Street Building New Shadows |
| ■ Mission and Capp Street Buildings New Combined Shadows | ■ Capp and Sixteenth Street Buildings New Combined Shadows | ■ Sixteenth and Mission Street Buildings New Copbined Shadows |
| ■ Mission, Capp and Sixteenth Street Buildings New Combined Shadows | | ■ Existing Shadows |

EXHIBIT K.2

Summary of Results - 1979 Mission Street ALTERNATIVE F (Reduced Capp
Component, 70' Setback)

cadp annualized net new shadow	4,814,315.72 Sq ft hrs
Annual Available Sunlight (AAS), based on City's AAS Factor	54,615,705.53 Sq ft hrs
Annual Shadow Increase as a Percentage of AAS	8.815%

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
21-Jun	None	06.21 09:30:00	0:15:00		1,328.58	332.14	18.61	4.65	
		06.21 09:45:00	0:15:00		1,346.19	336.55	88.09	22.02	
		06.21 10:00:00	0:15:00		1,361.08	340.27	143.68	35.92	
		06.21 10:15:00	0:15:00		1,373.74	343.44	201.25	50.31	
		06.21 10:30:00	0:15:00		1,384.66	346.16	243.68	60.92	
		06.21 10:45:00	0:15:00		1,388.63	347.16	288.10	72.02	
		06.21 11:00:00	0:15:00		1,375.48	343.87	316.88	79.22	
		06.21 11:15:00	0:15:00		1,366.05	341.51	352.12	88.03	
		06.21 11:30:00	0:15:00		1,351.65	337.91	369.49	92.37	
		06.21 11:45:00	0:15:00		1,339.74	334.94	397.53	99.38	
		06.21 12:00:00	0:15:00		1,325.35	331.34	403.24	100.81	
		06.21 12:15:00	0:15:00		1,314.43	328.61	427.80	106.95	
		06.21 12:30:00	0:15:00		1,296.81	324.20	422.59	105.65	
		06.21 12:45:00	0:15:00		1,285.65	321.41	439.96	109.99	
		06.21 13:00:00	0:15:00		1,267.78	316.95	425.57	106.39	
		06.21 13:15:00	0:15:00		1,266.79	316.70	437.48	109.37	
		06.21 13:30:00	0:15:00		1,289.62	322.40	414.90	103.73	
		06.21 13:45:00	0:15:00		1,339.25	334.81	419.62	104.90	
		06.21 14:00:00	0:15:00		1,404.51	351.13	388.35	97.09	
		06.21 14:15:00	0:15:00		1,599.30	399.83	375.94	93.99	
		06.21 14:30:00	0:15:00		1,815.94	453.98	335.00	83.75	
		06.21 14:45:00	0:15:00		2,036.79	509.20	310.43	77.61	
		06.21 15:00:00	0:15:00		2,257.88	564.47	262.54	65.64	
		06.21 15:15:00	0:15:00		2,464.59	616.15	225.07	56.27	
		06.21 15:30:00	0:15:00		2,660.13	665.03	168.49	42.12	
		06.21 15:45:00	0:15:00		2,867.08	716.77	117.37	29.34	
		06.21 16:00:00	0:15:00		3,068.58	767.14	65.01	16.25	
		06.21 16:15:00	0:15:00	7:00:00	3,275.53	818.88	24.82	6.20	2,020.90
28-Jun	14-Jun	06.28 09:30:00	0:15:00		1,328.58	332.14	18.61	4.65	
		06.28 09:45:00	0:15:00		1,345.70	336.42	88.59	22.15	
		06.28 10:00:00	0:15:00		1,361.08	340.27	145.91	36.48	
		06.28 10:15:00	0:15:00		1,373.99	343.50	202.74	50.68	
		06.28 10:30:00	0:15:00		1,385.40	346.35	246.41	61.60	
		06.28 10:45:00	0:15:00		1,391.61	347.90	291.08	72.77	
		06.28 11:00:00	0:15:00		1,379.20	344.80	320.36	80.09	
		06.28 11:15:00	0:15:00		1,368.28	342.07	356.34	89.09	
		06.28 11:30:00	0:15:00		1,354.63	338.66	373.96	93.49	
		06.28 11:45:00	0:15:00		1,342.72	335.68	402.25	100.56	
		06.28 12:00:00	0:15:00		1,328.82	332.21	408.95	102.24	
		06.28 12:15:00	0:15:00		1,317.41	329.35	432.77	108.19	
		06.28 12:30:00	0:15:00		1,301.03	325.26	428.55	107.14	
		06.28 12:45:00	0:15:00		1,287.88	321.97	445.67	111.42	
		06.28 13:00:00	0:15:00		1,270.01	317.50	432.02	108.01	
		06.28 13:15:00	0:15:00		1,268.03	317.01	443.69	110.92	
		06.28 13:30:00	0:15:00		1,288.13	322.03	422.84	105.71	
		06.28 13:45:00	0:15:00		1,335.77	333.94	427.31	106.83	
		06.28 14:00:00	0:15:00		1,397.31	349.33	397.53	99.38	
		06.28 14:15:00	0:15:00		1,582.68	395.67	385.62	96.41	
		06.28 14:30:00	0:15:00		1,800.55	450.14	344.68	86.17	
		06.28 14:45:00	0:15:00		2,022.14	505.54	321.10	80.28	
		06.28 15:00:00	0:15:00		2,244.98	561.25	273.95	68.49	
		06.28 15:15:00	0:15:00		2,449.45	612.36	236.73	59.18	
		06.28 15:30:00	0:15:00		2,650.70	662.68	180.65	45.16	
		06.28 15:45:00	0:15:00		2,855.42	713.86	129.28	32.32	
		06.28 16:00:00	0:15:00		3,055.67	763.92	77.42	19.36	
		06.28 16:15:00	0:15:00		3,269.08	817.27	28.54	7.13	
		06.28 16:30:00	0:15:00	7:15:00	3,471.57	867.89	1.74	0.43	2,066.31
5-Jul	7-Jul	07.05 09:30:00	0:15:00		1,333.04	333.26	34.49	8.62	
		07.05 09:45:00	0:15:00		1,349.17	337.29	105.71	26.43	
		07.05 10:00:00	0:15:00		1,364.06	341.02	164.77	41.19	
		07.05 10:15:00	0:15:00		1,377.71	344.43	221.84	55.46	
		07.05 10:30:00	0:15:00		1,388.63	347.16	264.52	66.13	
		07.05 10:45:00	0:15:00		1,397.56	349.39	310.43	77.61	
		07.05 11:00:00	0:15:00		1,386.64	346.66	339.96	84.99	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		07.05 11:15:00	0:15:00		1,373.24	343.31	374.45	93.61	
		07.05 11:30:00	0:15:00		1,360.59	340.15	393.56	98.39	
		07.05 11:45:00	0:15:00		1,349.17	337.29	421.85	105.46	
		07.05 12:00:00	0:15:00		1,334.28	333.57	428.55	107.14	
		07.05 12:15:00	0:15:00		1,324.61	331.15	452.12	113.03	
		07.05 12:30:00	0:15:00		1,307.98	327.00	448.15	112.04	
		07.05 12:45:00	0:15:00		1,293.59	323.40	466.02	116.51	
		07.05 13:00:00	0:15:00		1,275.97	318.99	453.12	113.28	
		07.05 13:15:00	0:15:00		1,271.01	317.75	463.79	115.95	
		07.05 13:30:00	0:15:00		1,289.87	322.47	444.93	111.23	
		07.05 13:45:00	0:15:00		1,337.26	334.32	449.64	112.41	
		07.05 14:00:00	0:15:00		1,397.56	349.39	420.61	105.15	
		07.05 14:15:00	0:15:00		1,578.46	394.62	409.44	102.36	
		07.05 14:30:00	0:15:00		1,790.38	447.59	368.75	92.19	
		07.05 14:45:00	0:15:00		2,016.69	504.17	345.17	86.29	
		07.05 15:00:00	0:15:00		2,241.26	560.31	298.27	74.57	
		07.05 15:15:00	0:15:00		2,453.17	613.29	263.53	65.88	
		07.05 15:30:00	0:15:00		2,655.17	663.79	207.70	51.93	
		07.05 15:45:00	0:15:00		2,861.38	715.34	158.57	39.64	
		07.05 16:00:00	0:15:00		3,067.59	766.90	108.69	27.17	
		07.05 16:15:00	0:15:00		3,283.72	820.93	50.37	12.59	
		07.05 16:30:00	0:15:00	7:15:00	3,490.92	872.73	16.13	4.03	2,221.28
12-Jul	31-May	07.12 09:15:00	0:15:00		1,321.13	330.28	1.24	0.31	
		07.12 09:30:00	0:15:00		1,339.25	334.81	65.76	16.44	
		07.12 09:45:00	0:15:00		1,357.86	339.46	138.47	34.62	
		07.12 10:00:00	0:15:00		1,370.26	342.57	196.78	49.20	
		07.12 10:15:00	0:15:00		1,385.40	346.35	255.09	63.77	
		07.12 10:30:00	0:15:00		1,395.58	348.89	298.77	74.69	
		07.12 10:45:00	0:15:00		1,407.24	351.81	344.43	86.11	
		07.12 11:00:00	0:15:00		1,395.33	348.83	372.47	93.12	
		07.12 11:15:00	0:15:00		1,384.16	346.04	409.69	102.42	
		07.12 11:30:00	0:15:00		1,371.26	342.81	426.32	106.58	
		07.12 11:45:00	0:15:00		1,360.09	340.02	455.85	113.96	
		07.12 12:00:00	0:15:00		1,344.21	336.05	462.30	115.57	
		07.12 12:15:00	0:15:00		1,331.31	332.83	485.87	121.47	
		07.12 12:30:00	0:15:00		1,314.18	328.55	482.65	120.66	
		07.12 12:45:00	0:15:00		1,302.27	325.57	499.77	124.94	
		07.12 13:00:00	0:15:00		1,282.67	320.67	488.10	122.03	
		07.12 13:15:00	0:15:00		1,276.47	319.12	499.02	124.76	
		07.12 13:30:00	0:15:00		1,294.33	323.58	480.91	120.23	
		07.12 13:45:00	0:15:00		1,339.99	335.00	485.13	121.28	
		07.12 14:00:00	0:15:00		1,405.00	351.25	457.58	114.40	
		07.12 14:15:00	0:15:00		1,583.92	395.98	447.90	111.98	
		07.12 14:30:00	0:15:00		1,797.08	449.27	406.46	101.62	
		07.12 14:45:00	0:15:00		2,024.13	506.03	384.63	96.16	
		07.12 15:00:00	0:15:00		2,253.67	563.42	337.73	84.43	
		07.12 15:15:00	0:15:00		2,467.82	616.95	302.49	75.62	
		07.12 15:30:00	0:15:00		2,675.02	668.75	247.65	61.91	
		07.12 15:45:00	0:15:00		2,888.18	722.04	199.26	49.82	
		07.12 16:00:00	0:15:00		3,098.60	774.65	153.85	38.46	
		07.12 16:15:00	0:15:00		3,322.68	830.67	103.48	25.87	
		07.12 16:30:00	0:15:00	7:30:00	3,542.54	885.63	37.22	9.31	2,481.71
19-Jul	24-May	07.19 09:15:00	0:15:00		1,331.31	332.83	38.46	9.62	
		07.19 09:30:00	0:15:00		1,348.92	337.23	117.87	29.47	
		07.19 09:45:00	0:15:00		1,366.29	341.57	190.58	47.64	
		07.19 10:00:00	0:15:00		1,381.68	345.42	248.39	62.10	
		07.19 10:15:00	0:15:00		1,394.83	348.71	305.96	76.49	
		07.19 10:30:00	0:15:00		1,406.25	351.56	349.39	87.35	
		07.19 10:45:00	0:15:00		1,417.41	354.35	394.06	98.51	
		07.19 11:00:00	0:15:00		1,408.73	352.18	423.09	105.77	
		07.19 11:15:00	0:15:00		1,398.06	349.51	458.82	114.71	
		07.19 11:30:00	0:15:00		1,381.93	345.48	475.45	118.86	
		07.19 11:45:00	0:15:00		1,371.51	342.88	503.99	126.00	
		07.19 12:00:00	0:15:00		1,355.38	338.84	509.94	127.49	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		07.19 12:15:00	0:15:00		1,344.71	336.18	534.26	133.57	
		07.19 12:30:00	0:15:00		1,328.33	332.08	531.03	132.76	
		07.19 12:45:00	0:15:00		1,315.67	328.92	547.91	136.98	
		07.19 13:00:00	0:15:00		1,296.32	324.08	536.49	134.12	
		07.19 13:15:00	0:15:00		1,289.37	322.34	547.41	136.85	
		07.19 13:30:00	0:15:00		1,306.49	326.62	530.29	132.57	
		07.19 13:45:00	0:15:00		1,353.14	338.29	534.01	133.50	
		07.19 14:00:00	0:15:00		1,415.68	353.92	508.45	127.11	
		07.19 14:15:00	0:15:00		1,597.32	399.33	498.03	124.51	
		07.19 14:30:00	0:15:00		1,818.42	454.60	458.33	114.58	
		07.19 14:45:00	0:15:00		2,051.43	512.86	436.74	109.18	
		07.19 15:00:00	0:15:00		2,282.70	570.67	390.83	97.71	
		07.19 15:15:00	0:15:00		2,497.84	624.46	355.59	88.90	
		07.19 15:30:00	0:15:00		2,715.71	678.93	300.75	75.19	
		07.19 15:45:00	0:15:00		2,940.53	735.13	254.60	63.65	
		07.19 16:00:00	0:15:00		3,156.92	789.23	208.20	52.05	
		07.19 16:15:00	0:15:00		3,389.93	847.48	170.73	42.68	
		07.19 16:30:00	0:15:00		3,618.47	904.62	94.54	23.64	
		07.19 16:45:00	0:15:00	7:30:00	3,862.15	965.54	34.74	8.69	2,863.55
26-Jul	17-May	07.26 09:00:00	0:15:00		1,340.24	335.06	18.36	4.59	
		07.26 09:15:00	0:15:00		1,344.71	336.18	109.18	27.30	
		07.26 09:30:00	0:15:00		1,362.82	340.71	187.60	46.90	
		07.26 09:45:00	0:15:00		1,380.93	345.23	260.06	65.01	
		07.26 10:00:00	0:15:00		1,395.33	348.83	318.87	79.72	
		07.26 10:15:00	0:15:00		1,407.49	351.87	374.95	93.74	
		07.26 10:30:00	0:15:00		1,419.89	354.97	415.89	103.97	
		07.26 10:45:00	0:15:00		1,429.82	357.46	460.31	115.08	
		07.26 11:00:00	0:15:00		1,425.60	356.40	487.36	121.84	
		07.26 11:15:00	0:15:00		1,414.68	353.67	522.35	130.59	
		07.26 11:30:00	0:15:00		1,399.55	349.89	539.22	134.81	
		07.26 11:45:00	0:15:00		1,387.14	346.78	567.01	141.75	
		07.26 12:00:00	0:15:00		1,370.51	342.63	573.47	143.37	
		07.26 12:15:00	0:15:00		1,356.62	339.15	596.05	149.01	
		07.26 12:30:00	0:15:00		1,340.24	335.06	593.32	148.33	
		07.26 12:45:00	0:15:00		1,328.08	332.02	609.70	152.42	
		07.26 13:00:00	0:15:00		1,307.98	327.00	598.53	149.63	
		07.26 13:15:00	0:15:00		1,300.78	325.20	609.45	152.36	
		07.26 13:30:00	0:15:00		1,319.15	329.79	593.81	148.45	
		07.26 13:45:00	0:15:00		1,367.29	341.82	598.28	149.57	
		07.26 14:00:00	0:15:00		1,434.78	358.70	573.47	143.37	
		07.26 14:15:00	0:15:00		1,627.84	406.96	562.80	140.70	
		07.26 14:30:00	0:15:00		1,855.89	463.97	523.09	130.77	
		07.26 14:45:00	0:15:00		2,088.40	522.10	502.25	125.56	
		07.26 15:00:00	0:15:00		2,324.39	581.10	455.60	113.90	
		07.26 15:15:00	0:15:00		2,550.20	637.55	422.35	105.59	
		07.26 15:30:00	0:15:00		2,777.25	694.31	369.99	92.50	
		07.26 15:45:00	0:15:00		3,009.52	752.38	326.56	81.64	
		07.26 16:00:00	0:15:00		3,242.03	810.51	279.17	69.79	
		07.26 16:15:00	0:15:00		3,484.97	871.24	239.71	59.93	
		07.26 16:30:00	0:15:00		3,731.13	932.78	193.06	48.26	
		07.26 16:45:00	0:15:00		3,991.19	997.80	105.46	26.37	
		07.26 17:00:00	0:15:00	8:15:00	4,396.66	1,099.16	17.12	4.28	3,401.09
2-Aug	10-May	08.02 08:45:00	0:15:00		1,806.51	451.63	11.17	2.79	
		08.02 09:00:00	0:15:00		1,404.76	351.19	108.44	27.11	
		08.02 09:15:00	0:15:00		1,362.08	340.52	202.74	50.68	
		08.02 09:30:00	0:15:00		1,380.19	345.05	278.17	69.54	
		08.02 09:45:00	0:15:00		1,398.80	349.70	350.38	87.60	
		08.02 10:00:00	0:15:00		1,411.46	352.86	405.72	101.43	
		08.02 10:15:00	0:15:00		1,425.10	356.28	460.81	115.20	
		08.02 10:30:00	0:15:00		1,435.78	358.94	500.51	125.13	
		08.02 10:45:00	0:15:00		1,448.18	362.05	541.70	135.43	
		08.02 11:00:00	0:15:00		1,444.71	361.18	569.00	142.25	
		08.02 11:15:00	0:15:00		1,431.56	357.89	602.00	150.50	
		08.02 11:30:00	0:15:00		1,418.16	354.54	617.39	154.35	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		08.02 11:45:00	0:15:00		1,406.25	351.56	645.18	161.30	
		08.02 12:00:00	0:15:00		1,390.12	347.53	651.63	162.91	
		08.02 12:15:00	0:15:00		1,375.23	343.81	670.00	167.50	
		08.02 12:30:00	0:15:00		1,358.85	339.71	667.76	166.94	
		08.02 12:45:00	0:15:00		1,343.96	335.99	682.65	170.66	
		08.02 13:00:00	0:15:00		1,325.60	331.40	674.46	168.62	
		08.02 13:15:00	0:15:00		1,318.65	329.66	683.89	170.97	
		08.02 13:30:00	0:15:00		1,340.74	335.18	671.98	168.00	
		08.02 13:45:00	0:15:00		1,392.85	348.21	676.70	169.17	
		08.02 14:00:00	0:15:00		1,463.57	365.89	651.14	162.78	
		08.02 14:15:00	0:15:00		1,671.02	417.75	639.72	159.93	
		08.02 14:30:00	0:15:00		1,904.52	476.13	601.76	150.44	
		08.02 14:45:00	0:15:00		2,146.96	536.74	578.93	144.73	
		08.02 15:00:00	0:15:00		2,390.89	597.72	534.26	133.57	
		08.02 15:15:00	0:15:00		2,619.68	654.92	502.74	125.69	
		08.02 15:30:00	0:15:00		2,856.91	714.23	449.15	112.29	
		08.02 15:45:00	0:15:00		3,107.04	776.76	407.95	101.99	
		08.02 16:00:00	0:15:00		3,350.72	837.68	361.05	90.26	
		08.02 16:15:00	0:15:00		3,617.48	904.37	322.59	80.65	
		08.02 16:30:00	0:15:00		3,870.34	967.59	274.95	68.74	
		08.02 16:45:00	0:15:00		4,176.55	1,044.14	237.23	59.31	
		08.02 17:00:00	0:15:00	8:30:00	4,643.56	1,160.89	113.16	28.29	4,086.72
9-Aug	3-May	08.09 08:30:00	0:15:00		2,737.05	684.26	10.17	2.54	
		08.09 08:45:00	0:15:00		1,998.82	499.71	125.56	31.39	
		08.09 09:00:00	0:15:00		1,531.56	382.89	226.56	56.64	
		08.09 09:15:00	0:15:00		1,383.66	345.92	318.12	79.53	
		08.09 09:30:00	0:15:00		1,401.53	350.38	391.82	97.96	
		08.09 09:45:00	0:15:00		1,418.40	354.60	459.82	114.95	
		08.09 10:00:00	0:15:00		1,433.79	358.45	511.93	127.98	
		08.09 10:15:00	0:15:00		1,445.95	361.49	564.29	141.07	
		08.09 10:30:00	0:15:00		1,456.87	364.22	600.51	150.13	
		08.09 10:45:00	0:15:00		1,469.03	367.26	638.73	159.68	
		08.09 11:00:00	0:15:00		1,468.03	367.01	660.57	165.14	
		08.09 11:15:00	0:15:00		1,454.63	363.66	685.88	171.47	
		08.09 11:30:00	0:15:00		1,439.50	359.87	696.30	174.08	
		08.09 11:45:00	0:15:00		1,426.59	356.65	712.92	178.23	
		08.09 12:00:00	0:15:00		1,410.71	352.68	717.89	179.47	
		08.09 12:15:00	0:15:00		1,396.07	349.02	733.02	183.26	
		08.09 12:30:00	0:15:00		1,379.20	344.80	734.02	183.50	
		08.09 12:45:00	0:15:00		1,364.56	341.14	744.19	186.05	
		08.09 13:00:00	0:15:00		1,345.45	336.36	740.22	185.06	
		08.09 13:15:00	0:15:00		1,339.99	335.00	749.90	187.48	
		08.09 13:30:00	0:15:00		1,365.80	341.45	745.18	186.30	
		08.09 13:45:00	0:15:00		1,421.88	355.47	752.88	188.22	
		08.09 14:00:00	0:15:00		1,503.77	375.94	736.50	184.13	
		08.09 14:15:00	0:15:00		1,732.06	433.02	725.33	181.33	
		08.09 14:30:00	0:15:00		1,971.77	492.94	692.08	173.02	
		08.09 14:45:00	0:15:00		2,227.61	556.90	672.48	168.12	
		08.09 15:00:00	0:15:00		2,473.27	618.32	626.07	156.52	
		08.09 15:15:00	0:15:00		2,710.50	677.63	595.30	148.83	
		08.09 15:30:00	0:15:00		2,960.14	740.03	542.45	135.61	
		08.09 15:45:00	0:15:00		3,223.17	805.79	504.73	126.18	
		08.09 16:00:00	0:15:00		3,488.94	872.23	455.85	113.96	
		08.09 16:15:00	0:15:00		3,777.04	944.26	415.15	103.79	
		08.09 16:30:00	0:15:00		4,057.94	1,014.48	366.02	91.50	
		08.09 16:45:00	0:15:00		4,439.59	1,109.90	327.55	81.89	
		08.09 17:00:00	0:15:00		4,940.10	1,235.02	288.84	72.21	
		08.09 17:15:00	0:15:00	9:00:00	5,536.39	1,384.10	138.71	34.68	4,867.20
16-Aug	26-May	08.16 08:15:00	0:15:00		4,441.57	1,110.39	19.60	4.90	
		08.16 08:30:00	0:15:00		3,132.85	783.21	154.35	38.59	
		08.16 08:45:00	0:15:00		2,244.73	561.18	271.72	67.93	
		08.16 09:00:00	0:15:00		1,694.10	423.52	368.00	92.00	
		08.16 09:15:00	0:15:00		1,414.93	353.73	456.59	114.15	
		08.16 09:30:00	0:15:00		1,428.08	357.02	524.58	131.15	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		08.16 09:45:00	0:15:00		1,444.46	361.12	589.10	147.28	
		08.16 10:00:00	0:15:00		1,458.85	364.71	630.79	157.70	
		08.16 10:15:00	0:15:00		1,470.52	367.63	664.29	166.07	
		08.16 10:30:00	0:15:00		1,483.42	370.86	686.62	171.66	
		08.16 10:45:00	0:15:00		1,491.61	372.90	711.93	177.98	
		08.16 11:00:00	0:15:00		1,493.10	373.27	727.81	181.95	
		08.16 11:15:00	0:15:00		1,481.43	370.36	748.91	187.23	
		08.16 11:30:00	0:15:00		1,466.55	366.64	758.34	189.58	
		08.16 11:45:00	0:15:00		1,449.92	362.48	776.70	194.17	
		08.16 12:00:00	0:15:00		1,434.29	358.57	779.92	194.98	
		08.16 12:15:00	0:15:00		1,418.40	354.60	795.06	198.77	
		08.16 12:30:00	0:15:00		1,401.28	350.32	795.31	198.83	
		08.16 12:45:00	0:15:00		1,385.65	346.41	806.48	201.62	
		08.16 13:00:00	0:15:00		1,367.53	341.88	802.75	200.69	
		08.16 13:15:00	0:15:00		1,364.81	341.20	812.93	203.23	
		08.16 13:30:00	0:15:00		1,395.08	348.77	810.94	202.74	
		08.16 13:45:00	0:15:00		1,455.38	363.85	816.65	204.16	
		08.16 14:00:00	0:15:00		1,570.52	392.63	801.02	200.25	
		08.16 14:15:00	0:15:00		1,805.51	451.38	792.33	198.08	
		08.16 14:30:00	0:15:00		2,056.39	514.10	768.01	192.00	
		08.16 14:45:00	0:15:00		2,326.12	581.53	753.12	188.28	
		08.16 15:00:00	0:15:00		2,575.76	643.94	724.59	181.15	
		08.16 15:15:00	0:15:00		2,824.65	706.16	698.78	174.70	
		08.16 15:30:00	0:15:00		3,084.71	771.18	651.14	162.78	
		08.16 15:45:00	0:15:00		3,365.11	841.28	613.17	153.29	
		08.16 16:00:00	0:15:00		3,650.23	912.56	560.31	140.08	
		08.16 16:15:00	0:15:00		3,958.68	989.67	518.87	129.72	
		08.16 16:30:00	0:15:00		4,287.97	1,071.99	467.26	116.82	
		08.16 16:45:00	0:15:00		4,762.18	1,190.54	424.83	106.21	
		08.16 17:00:00	0:15:00		5,309.34	1,327.34	397.53	99.38	
		08.16 17:15:00	0:15:00		5,967.42	1,491.86	381.65	95.41	
		08.16 17:30:00	0:15:00	9:30:00	6,746.85	1,686.71	158.32	39.58	5,670.08
23-Aug	19-Apr	08.23 08:00:00	0:15:00		7,258.53	1,814.63	43.67	10.92	
		08.23 08:15:00	0:15:00		5,200.90	1,300.23	201.99	50.50	
		08.23 08:30:00	0:15:00		3,644.77	911.19	335.74	83.94	
		08.23 08:45:00	0:15:00		2,559.13	639.78	449.39	112.35	
		08.23 09:00:00	0:15:00		1,875.74	468.94	539.47	134.87	
		08.23 09:15:00	0:15:00		1,482.92	370.73	606.22	151.56	
		08.23 09:30:00	0:15:00		1,461.09	365.27	645.43	161.36	
		08.23 09:45:00	0:15:00		1,475.97	368.99	684.14	171.04	
		08.23 10:00:00	0:15:00		1,489.13	372.28	712.43	178.11	
		08.23 10:15:00	0:15:00		1,501.78	375.45	742.21	185.55	
		08.23 10:30:00	0:15:00		1,508.98	377.24	763.05	190.76	
		08.23 10:45:00	0:15:00		1,519.40	379.85	787.37	196.84	
		08.23 11:00:00	0:15:00		1,527.84	381.96	801.02	200.25	
		08.23 11:15:00	0:15:00		1,510.47	377.62	821.36	205.34	
		08.23 11:30:00	0:15:00		1,491.61	372.90	829.80	207.45	
		08.23 11:45:00	0:15:00		1,475.48	368.87	846.68	211.67	
		08.23 12:00:00	0:15:00		1,458.60	364.65	850.89	212.72	
		08.23 12:15:00	0:15:00		1,442.23	360.56	864.79	216.20	
		08.23 12:30:00	0:15:00		1,424.61	356.15	865.53	216.38	
		08.23 12:45:00	0:15:00		1,408.73	352.18	876.45	219.11	
		08.23 13:00:00	0:15:00		1,390.61	347.65	873.72	218.43	
		08.23 13:15:00	0:15:00		1,391.36	347.84	885.39	221.35	
		08.23 13:30:00	0:15:00		1,430.32	357.58	883.40	220.85	
		08.23 13:45:00	0:15:00		1,496.82	374.21	890.60	222.65	
		08.23 14:00:00	0:15:00		1,653.65	413.41	872.98	218.25	
		08.23 14:15:00	0:15:00		1,904.52	476.13	862.81	215.70	
		08.23 14:30:00	0:15:00		2,166.81	541.70	838.24	209.56	
		08.23 14:45:00	0:15:00		2,440.77	610.19	824.09	206.02	
		08.23 15:00:00	0:15:00		2,698.34	674.59	796.55	199.14	
		08.23 15:15:00	0:15:00		2,967.33	741.83	777.94	194.49	
		08.23 15:30:00	0:15:00		3,241.29	810.32	746.42	186.61	
		08.23 15:45:00	0:15:00		3,544.27	886.07	717.64	179.41	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		08.23 16:00:00	0:15:00		3,855.95	963.99	674.21	168.55	
		08.23 16:15:00	0:15:00		4,192.18	1,048.05	628.06	157.02	
		08.23 16:30:00	0:15:00		4,593.19	1,148.30	573.47	143.37	
		08.23 16:45:00	0:15:00		5,131.91	1,282.98	532.52	133.13	
		08.23 17:00:00	0:15:00		5,747.32	1,436.83	516.64	129.16	
		08.23 17:15:00	0:15:00		6,501.93	1,625.48	542.70	135.67	
		08.23 17:30:00	0:15:00		7,387.81	1,846.95	510.93	127.73	
		08.23 17:45:00	0:15:00	10:00:00	8,552.86	2,138.22	175.94	43.98	6,847.97
30-Aug	12-Apr	08.30 07:37:48	0:03:36		13,319.25	799.16	2.48	0.15	
		08.30 07:45:00	0:11:24		12,014.00	2,282.66	73.70	14.00	
		08.30 08:00:00	0:15:00		8,459.31	2,114.83	255.84	63.96	
		08.30 08:15:00	0:15:00		6,057.75	1,514.44	424.33	106.08	
		08.30 08:30:00	0:15:00		4,266.38	1,066.60	538.23	134.56	
		08.30 08:45:00	0:15:00		2,949.47	737.37	602.50	150.63	
		08.30 09:00:00	0:15:00		2,090.63	522.66	654.61	163.65	
		08.30 09:15:00	0:15:00		1,603.03	400.76	703.00	175.75	
		08.30 09:30:00	0:15:00		1,502.77	375.69	740.22	185.06	
		08.30 09:45:00	0:15:00		1,512.20	378.05	775.71	193.93	
		08.30 10:00:00	0:15:00		1,522.38	380.59	801.26	200.32	
		08.30 10:15:00	0:15:00		1,538.26	384.57	828.81	207.20	
		08.30 10:30:00	0:15:00		1,545.70	386.43	847.67	211.92	
		08.30 10:45:00	0:15:00		1,552.90	388.23	870.75	217.69	
		08.30 11:00:00	0:15:00		1,556.87	389.22	883.15	220.79	
		08.30 11:15:00	0:15:00		1,539.75	384.94	901.52	225.38	
		08.30 11:30:00	0:15:00		1,518.90	379.73	909.95	227.49	
		08.30 11:45:00	0:15:00		1,501.04	375.26	925.34	231.33	
		08.30 12:00:00	0:15:00		1,483.42	370.86	929.56	232.39	
		08.30 12:15:00	0:15:00		1,466.79	366.70	942.71	235.68	
		08.30 12:30:00	0:15:00		1,449.42	362.36	943.45	235.86	
		08.30 12:45:00	0:15:00		1,432.80	358.20	955.36	238.84	
		08.30 13:00:00	0:15:00		1,416.17	354.04	953.38	238.35	
		08.30 13:15:00	0:15:00		1,421.63	355.41	967.27	241.82	
		08.30 13:30:00	0:15:00		1,469.03	367.26	965.79	241.45	
		08.30 13:45:00	0:15:00		1,542.23	385.56	973.97	243.49	
		08.30 14:00:00	0:15:00		1,746.21	436.55	952.39	238.10	
		08.30 14:15:00	0:15:00		2,015.44	503.86	941.72	235.43	
		08.30 14:30:00	0:15:00		2,299.08	574.77	916.65	229.16	
		08.30 14:45:00	0:15:00		2,576.50	644.13	901.76	225.44	
		08.30 15:00:00	0:15:00		2,844.01	711.00	876.70	219.18	
		08.30 15:15:00	0:15:00		3,138.31	784.58	858.59	214.65	
		08.30 15:30:00	0:15:00		3,436.33	859.08	829.80	207.45	
		08.30 15:45:00	0:15:00		3,760.41	940.10	805.98	201.50	
		08.30 16:00:00	0:15:00		4,094.41	1,023.60	769.01	192.25	
		08.30 16:15:00	0:15:00		4,477.30	1,119.33	733.27	183.32	
		08.30 16:30:00	0:15:00		4,953.50	1,238.37	683.40	170.85	
		08.30 16:45:00	0:15:00		5,552.27	1,388.07	660.57	165.14	
		08.30 17:00:00	0:15:00		6,249.07	1,562.27	691.09	172.77	
		08.30 17:15:00	0:15:00		7,109.39	1,777.35	794.81	198.70	
		08.30 17:30:00	0:15:00		8,155.83	2,038.96	826.08	206.52	
		08.30 17:45:00	0:15:00		9,525.59	2,381.40	633.02	158.26	
		08.30 18:00:00	0:15:00	10:30:00	11,519.95	2,879.99	96.78	24.19	8,056.45
6-Sep	5-Apr	09.06 07:44:24	0:07:48		13,675.10	1,777.76	200.25	26.03	
		09.06 08:00:00	0:15:00		9,939.25	2,484.81	404.48	101.12	
		09.06 08:15:00	0:15:00		7,076.64	1,769.16	535.75	133.94	
		09.06 08:30:00	0:15:00		5,002.63	1,250.66	642.20	160.55	
		09.06 08:45:00	0:15:00		3,434.84	858.71	712.43	178.11	
		09.06 09:00:00	0:15:00		2,375.51	593.88	762.06	190.51	
		09.06 09:15:00	0:15:00		1,792.11	448.03	806.48	201.62	
		09.06 09:30:00	0:15:00		1,544.96	386.24	839.73	209.93	
		09.06 09:45:00	0:15:00		1,553.89	388.47	874.47	218.62	
		09.06 10:00:00	0:15:00		1,562.08	390.52	897.55	224.39	
		09.06 10:15:00	0:15:00		1,573.74	393.44	924.35	231.09	
		09.06 10:30:00	0:15:00		1,581.19	395.30	939.98	235.00	
		09.06 10:45:00	0:15:00		1,591.61	397.90	961.82	240.45	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		09.06 11:00:00	0:15:00		1,595.09	398.77	972.98	243.25	
		09.06 11:15:00	0:15:00		1,577.22	394.30	989.61	247.40	
		09.06 11:30:00	0:15:00		1,555.38	388.85	997.80	249.45	
		09.06 11:45:00	0:15:00		1,538.26	384.57	1,012.93	253.23	
		09.06 12:00:00	0:15:00		1,520.14	380.04	1,017.15	254.29	
		09.06 12:15:00	0:15:00		1,502.77	375.69	1,030.55	257.64	
		09.06 12:30:00	0:15:00		1,484.66	371.17	1,031.79	257.95	
		09.06 12:45:00	0:15:00		1,467.79	366.95	1,042.71	260.68	
		09.06 13:00:00	0:15:00		1,450.17	362.54	1,040.73	260.18	
		09.06 13:15:00	0:15:00		1,468.03	367.01	1,057.60	264.40	
		09.06 13:30:00	0:15:00		1,519.65	379.91	1,057.35	264.34	
		09.06 13:45:00	0:15:00		1,607.99	402.00	1,062.07	265.52	
		09.06 14:00:00	0:15:00		1,858.12	464.53	1,039.98	260.00	
		09.06 14:15:00	0:15:00		2,141.75	535.44	1,028.32	257.08	
		09.06 14:30:00	0:15:00		2,439.03	609.76	1,003.01	250.75	
		09.06 14:45:00	0:15:00		2,730.11	682.53	989.61	247.40	
		09.06 15:00:00	0:15:00		3,024.16	756.04	971.74	242.94	
		09.06 15:15:00	0:15:00		3,340.79	835.20	975.22	243.80	
		09.06 15:30:00	0:15:00		3,660.90	915.23	942.96	235.74	
		09.06 15:45:00	0:15:00		4,018.48	1,004.62	913.68	228.42	
		09.06 16:00:00	0:15:00		4,379.29	1,094.82	871.99	218.00	
		09.06 16:15:00	0:15:00		4,820.74	1,205.19	840.47	210.12	
		09.06 16:30:00	0:15:00		5,376.34	1,344.09	801.26	200.32	
		09.06 16:45:00	0:15:00		6,033.43	1,508.36	793.82	198.46	
		09.06 17:00:00	0:15:00		6,825.76	1,706.44	991.35	247.84	
		09.06 17:15:00	0:15:00		7,805.94	1,951.49	1,188.87	297.22	
		09.06 17:30:00	0:15:00		9,035.50	2,258.88	1,215.67	303.92	
		09.06 17:45:00	0:15:00		10,726.62	2,681.66	936.75	234.19	
		09.06 18:00:00	0:15:00	10:22:48	12,473.57	3,118.39	603.99	151.00	9,456.84
13-Sep	29-Mar	09.13 07:50:24	0:04:48		13,536.13	1,082.89	231.27	18.50	
		09.13 08:00:00	0:12:36		11,474.53	2,409.65	359.56	75.51	
		09.13 08:15:00	0:15:00		8,196.03	2,049.01	570.74	142.68	
		09.13 08:30:00	0:15:00		5,813.32	1,453.33	721.61	180.40	
		09.13 08:45:00	0:15:00		4,018.73	1,004.68	813.92	203.48	
		09.13 09:00:00	0:15:00		2,739.29	684.82	864.05	216.01	
		09.13 09:15:00	0:15:00		2,000.80	500.20	908.96	227.24	
		09.13 09:30:00	0:15:00		1,610.97	402.74	941.72	235.43	
		09.13 09:45:00	0:15:00		1,602.03	400.51	975.22	243.80	
		09.13 10:00:00	0:15:00		1,608.48	402.12	998.04	249.51	
		09.13 10:15:00	0:15:00		1,617.91	404.48	1,022.61	255.65	
		09.13 10:30:00	0:15:00		1,621.39	405.35	1,038.00	259.50	
		09.13 10:45:00	0:15:00		1,628.09	407.02	1,058.10	264.52	
		09.13 11:00:00	0:15:00		1,629.33	407.33	1,069.76	267.44	
		09.13 11:15:00	0:15:00		1,612.95	403.24	1,086.39	271.60	
		09.13 11:30:00	0:15:00		1,588.39	397.10	1,092.34	273.09	
		09.13 11:45:00	0:15:00		1,571.51	392.88	1,108.22	277.06	
		09.13 12:00:00	0:15:00		1,549.18	387.29	1,111.45	277.86	
		09.13 12:15:00	0:15:00		1,534.29	383.57	1,124.60	281.15	
		09.13 12:30:00	0:15:00		1,512.45	378.11	1,125.84	281.46	
		09.13 12:45:00	0:15:00		1,497.07	374.27	1,138.99	284.75	
		09.13 13:00:00	0:15:00		1,479.95	369.99	1,138.99	284.75	
		09.13 13:15:00	0:15:00		1,510.47	377.62	1,155.87	288.97	
		09.13 13:30:00	0:15:00		1,574.24	393.56	1,158.60	289.65	
		09.13 13:45:00	0:15:00		1,710.97	427.74	1,158.10	289.53	
		09.13 14:00:00	0:15:00		126.00	497.78	1,134.77	283.69	
		09.13 14:15:00	0:15:00		2,295.85	573.96	1,122.61	280.65	
		09.13 14:30:00	0:15:00		2,609.51	652.38	1,097.80	274.45	
		09.13 14:45:00	0:15:00		2,915.97	728.99	1,087.63	271.91	
		09.13 15:00:00	0:15:00		3,227.14	806.79	1,084.40	271.10	
		09.13 15:15:00	0:15:00		3,572.07	893.02	1,109.71	277.43	
		09.13 15:30:00	0:15:00		3,929.15	982.29	1,097.30	274.33	
		09.13 15:45:00	0:15:00		4,310.05	1,077.51	1,087.38	271.84	
		09.13 16:00:00	0:15:00		4,718.75	1,179.69	1,056.11	264.03	
		09.13 16:15:00	0:15:00		5,221.99	1,305.50	1,033.03	258.26	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		09.13 16:30:00	0:15:00		5,841.86	1,460.47	964.79	241.20	
		09.13 16:45:00	0:15:00		6,591.01	1,647.75	1,117.90	279.48	
		09.13 17:00:00	0:15:00		7,484.84	1,871.21	1,433.79	358.45	
		09.13 17:15:00	0:15:00		8,609.19	2,152.30	1,785.17	446.29	
		09.13 17:30:00	0:15:00		10,070.27	2,517.57	1,543.97	385.99	
		09.13 17:45:00	0:15:00		11,841.29	2,960.32	1,278.70	319.67	
		09.13 18:00:00	0:15:00		13,307.09	3,326.77	870.25	217.56	
		09.13 18:15:00	0:10:48		14,041.36	2,527.45	385.87	69.46	
		09.13 18:21:00	0:03:00	10:28:12	14,396.21	719.81	181.89	9.10	10,994.41
20-Sep	22-Mar	09.20 07:57:00	0:01:12		13,188.48	263.77	126.31	2.53	
		09.20 08:00:00	0:09:00		12,572.83	1,885.92	191.57	28.74	
		09.20 08:15:00	0:15:00		9,384.65	2,346.16	491.08	122.77	
		09.20 08:30:00	0:15:00		6,715.34	1,678.83	740.72	185.18	
		09.20 08:45:00	0:15:00		4,683.76	1,170.94	886.88	221.72	
		09.20 09:00:00	0:15:00		3,164.86	791.22	971.49	242.87	
		09.20 09:15:00	0:15:00		2,249.20	562.30	1,015.91	253.98	
		09.20 09:30:00	0:15:00		1,733.05	433.26	1,047.67	261.92	
		09.20 09:45:00	0:15:00		1,655.14	413.78	1,079.19	269.80	
		09.20 10:00:00	0:15:00		1,661.59	415.40	1,101.03	275.26	
		09.20 10:15:00	0:15:00		1,666.55	416.64	1,126.34	281.58	
		09.20 10:30:00	0:15:00		1,666.30	416.58	1,141.23	285.31	
		09.20 10:45:00	0:15:00		1,671.51	417.88	1,161.82	290.46	
		09.20 11:00:00	0:15:00		1,672.01	418.00	1,171.75	292.94	
		09.20 11:15:00	0:15:00		1,654.14	413.54	1,190.11	297.53	
		09.20 11:30:00	0:15:00		1,627.10	406.77	1,196.07	299.02	
		09.20 11:45:00	0:15:00		1,607.24	401.81	1,211.70	302.93	
		09.20 12:00:00	0:15:00		1,586.90	396.72	1,214.43	303.61	
		09.20 12:15:00	0:15:00		1,569.28	392.32	1,227.58	306.90	
		09.20 12:30:00	0:15:00		1,550.91	387.73	1,229.81	307.45	
		09.20 12:45:00	0:15:00		1,535.28	383.82	1,241.97	310.49	
		09.20 13:00:00	0:15:00		1,523.37	380.84	1,246.44	311.61	
		09.20 13:15:00	0:15:00		1,566.05	391.51	1,265.79	316.45	
		09.20 13:30:00	0:15:00		1,635.04	408.76	1,267.04	316.76	
		09.20 13:45:00	0:15:00		1,835.29	458.82	1,260.83	315.21	
		09.20 14:00:00	0:15:00		2,134.31	533.58	1,236.76	309.19	
		09.20 14:15:00	0:15:00		2,465.09	616.27	1,223.61	305.90	
		09.20 14:30:00	0:15:00		2,785.94	696.49	1,200.28	300.07	
		09.20 14:45:00	0:15:00		3,122.43	780.61	1,200.04	300.01	
		09.20 15:00:00	0:15:00		3,467.10	866.78	1,220.63	305.16	
		09.20 15:15:00	0:15:00		3,844.28	961.07	1,260.58	315.15	
		09.20 15:30:00	0:15:00		4,231.14	1,057.79	1,279.94	319.99	
		09.20 15:45:00	0:15:00		4,644.31	1,161.08	1,310.71	327.68	
		09.20 16:00:00	0:15:00		5,096.93	1,274.23	1,324.61	331.15	
09.20 16:15:00	0:15:00		5,689.00	1,422.25	1,368.03	342.01			
09.20 16:30:00	0:15:00		6,359.99	1,590.00	1,474.49	368.62			
09.20 16:45:00	0:15:00		7,200.21	1,800.05	1,850.18	462.55			
09.20 17:00:00	0:15:00		8,228.04	2,057.01	2,296.10	574.02			
09.20 17:15:00	0:15:00		9,532.29	2,383.07	2,275.01	568.75			
09.20 17:30:00	0:15:00		11,343.51	2,835.88	1,933.06	483.27			
09.20 17:45:00	0:15:00		12,582.01	3,145.50	1,544.71	386.18			
09.20 18:00:00	0:12:36		13,441.34	2,822.68	1,035.02	217.35			
09.20 18:09:36	0:04:48	10:07:48	13,899.92	1,111.99	711.68	56.94	12,676.95		
27-Sep	15-Mar	09.27 08:03:00	0:06:00		12,756.95	1,275.70	152.86	15.29	
		09.27 08:15:00	0:13:12		10,524.13	2,315.31	339.71	74.74	
		09.27 08:30:00	0:15:00		7,833.73	1,958.43	684.64	171.16	
		09.27 08:45:00	0:15:00		5,483.29	1,370.82	941.22	235.31	
		09.27 09:00:00	0:15:00		3,745.52	936.38	1,073.73	268.43	
		09.27 09:15:00	0:15:00		2,561.61	640.40	1,130.06	282.52	
		09.27 09:30:00	0:15:00		1,907.75	476.94	1,160.83	290.21	
		09.27 09:45:00	0:15:00		1,713.45	428.36	1,191.85	297.96	
		09.27 10:00:00	0:15:00		1,712.95	428.24	1,212.44	303.11	
		09.27 10:15:00	0:15:00		1,713.20	428.30	1,235.27	308.82	
		09.27 10:30:00	0:15:00		1,714.44	428.61	1,249.42	312.35	
09.27 10:45:00	0:15:00		1,717.17	429.29	1,268.77	317.19			

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		09.27 11:00:00	0:15:00		1,716.18	429.05	1,277.46	319.36	
		09.27 11:15:00	0:15:00		1,699.06	424.76	1,295.82	323.96	
		09.27 11:30:00	0:15:00		1,671.02	417.75	1,303.76	325.94	
		09.27 11:45:00	0:15:00		1,648.44	412.11	1,320.64	330.16	
		09.27 12:00:00	0:15:00		1,628.83	407.21	1,322.12	330.53	
		09.27 12:15:00	0:15:00		1,610.97	402.74	1,337.76	334.44	
		09.27 12:30:00	0:15:00		1,590.62	397.65	1,341.48	335.37	
		09.27 12:45:00	0:15:00		1,573.25	393.31	1,355.62	338.91	
		09.27 13:00:00	0:15:00		1,566.55	391.64	1,364.81	341.20	
		09.27 13:15:00	0:15:00		1,622.38	405.60	1,383.42	345.85	
		09.27 13:30:00	0:15:00		1,697.82	424.45	1,384.16	346.04	
		09.27 13:45:00	0:15:00		1,957.38	489.35	1,371.51	342.88	
		09.27 14:00:00	0:15:00		2,270.04	567.51	1,344.46	336.11	
		09.27 14:15:00	0:15:00		2,607.52	651.88	1,330.31	332.58	
		09.27 14:30:00	0:15:00		2,936.56	734.14	1,310.46	327.62	
		09.27 14:45:00	0:15:00		3,288.44	822.11	1,327.09	331.77	
		09.27 15:00:00	0:15:00		3,656.44	914.11	1,373.99	343.50	
		09.27 15:15:00	0:15:00		4,059.18	1,014.79	1,434.04	358.51	
		09.27 15:30:00	0:15:00		4,488.97	1,122.24	1,491.61	372.90	
		09.27 15:45:00	0:15:00		4,945.31	1,236.33	1,575.23	393.81	
		09.27 16:00:00	0:15:00		5,479.07	1,369.77	1,666.05	416.51	
		09.27 16:15:00	0:15:00		6,120.53	1,530.13	1,797.08	449.27	
		09.27 16:30:00	0:15:00		6,914.10	1,728.53	2,221.41	555.35	
		09.27 16:45:00	0:15:00		7,891.05	1,972.76	2,789.17	697.29	
		09.27 17:00:00	0:15:00		9,112.93	2,278.23	3,036.32	759.08	
		09.27 17:15:00	0:15:00		10,705.28	2,676.32	2,710.50	677.63	
		09.27 17:30:00	0:15:00		12,025.42	3,006.36	2,242.50	560.63	
		09.27 17:45:00	0:13:48		13,057.46	3,003.22	1,483.92	341.30	
		09.27 17:58:11	0:06:36	9:54:36	13,745.57	1,512.01	899.53	98.95	14,244.51
4-Oct	8-Mar	10.04 08:09:36	0:02:24		12,400.37	496.02	180.90	7.24	
		10.04 08:15:00	0:10:12		11,439.79	1,944.77	253.36	43.07	
		10.04 08:30:00	0:15:00		8,955.10	2,238.78	580.41	145.10	
		10.04 08:45:00	0:15:00		6,376.86	1,594.22	972.73	243.18	
		10.04 09:00:00	0:15:00		4,378.79	1,094.70	1,179.94	294.98	
		10.04 09:15:00	0:15:00		2,991.90	747.98	1,250.91	312.73	
		10.04 09:30:00	0:15:00		2,144.73	536.18	1,282.42	320.61	
		10.04 09:45:00	0:15:00		1,779.71	444.93	1,311.45	327.86	
		10.04 10:00:00	0:15:00		1,771.77	442.94	1,329.82	332.45	
		10.04 10:15:00	0:15:00		1,771.02	442.76	1,352.15	338.04	
		10.04 10:30:00	0:15:00		1,765.81	441.45	1,363.56	340.89	
		10.04 10:45:00	0:15:00		1,765.56	441.39	1,382.92	345.73	
		10.04 11:00:00	0:15:00		1,764.07	441.02	1,391.11	347.78	
		10.04 11:15:00	0:15:00		1,746.45	436.61	1,409.22	352.31	
		10.04 11:30:00	0:15:00		1,717.67	429.42	1,415.92	353.98	
		10.04 11:45:00	0:15:00		1,694.59	423.65	1,434.29	358.57	
		10.04 12:00:00	0:15:00		1,672.01	418.00	1,439.25	359.81	
		10.04 12:15:00	0:15:00		1,653.15	413.29	1,455.38	363.85	
		10.04 12:30:00	0:15:00		1,631.07	407.77	1,459.85	364.96	
		10.04 12:45:00	0:15:00		1,615.18	403.80	1,474.98	368.75	
		10.04 13:00:00	0:15:00		1,612.95	403.24	1,489.87	372.47	
		10.04 13:15:00	0:15:00		1,678.71	419.68	1,510.22	377.56	
		10.04 13:30:00	0:15:00		1,789.14	447.28	1,502.53	375.63	
		10.04 13:45:00	0:15:00		2,083.93	520.98	1,488.13	372.03	
		10.04 14:00:00	0:15:00		2,408.76	602.19	1,460.84	365.21	
		10.04 14:15:00	0:15:00		2,744.25	686.06	1,446.45	361.61	
		10.04 14:30:00	0:15:00		3,086.69	771.67	1,436.52	359.13	
		10.04 14:45:00	0:15:00		3,452.21	863.05	1,485.65	371.41	
		10.04 15:00:00	0:15:00		3,837.83	959.46	1,544.46	386.12	
		10.04 15:15:00	0:15:00		4,256.45	1,064.11	1,640.74	410.19	
		10.04 15:30:00	0:15:00		4,712.30	1,178.08	1,746.45	436.61	
		10.04 15:45:00	0:15:00		5,214.55	1,303.64	1,897.82	474.46	
		10.04 16:00:00	0:15:00		5,788.26	1,447.07	2,075.25	518.81	
		10.04 16:15:00	0:15:00		6,505.40	1,626.35	2,484.44	621.11	
		10.04 16:30:00	0:15:00		7,422.30	1,855.58	3,116.47	779.12	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		10.04 16:45:00	0:15:00		8,620.60	2,155.15	3,798.62	949.66	
		10.04 17:00:00	0:15:00		10,140.75	2,535.19	3,345.01	836.25	
		10.04 17:15:00	0:15:00		11,603.32	2,900.83	2,749.71	687.43	
		10.04 17:30:00	0:16:12		12,684.99	3,424.95	1,989.89	537.27	
		10.04 17:47:23	0:08:24	9:37:12	14,056.99	1,967.98	616.64	86.33	15,600.28
11-Oct	1-Mar	10.11 08:16:11	0:07:12		12,039.32	1,444.72	324.08	38.89	
		10.11 08:30:00	0:14:24		9,887.39	2,372.97	418.13	100.35	
		10.11 08:45:00	0:15:00		7,290.54	1,822.64	942.21	235.55	
		10.11 09:00:00	0:15:00		5,059.95	1,264.99	1,238.00	309.50	
		10.11 09:15:00	0:15:00		3,428.14	857.04	1,372.75	343.19	
		10.11 09:30:00	0:15:00		2,408.51	602.13	1,407.24	351.81	
		10.11 09:45:00	0:15:00		1,896.58	474.15	1,437.26	359.32	
		10.11 10:00:00	0:15:00		1,835.29	458.82	1,453.89	363.47	
		10.11 10:15:00	0:15:00		1,831.07	457.77	1,475.23	368.81	
		10.11 10:30:00	0:15:00		1,825.36	456.34	1,486.40	371.60	
		10.11 10:45:00	0:15:00		1,820.15	455.04	1,504.02	376.00	
		10.11 11:00:00	0:15:00		1,815.69	453.92	1,511.96	377.99	
		10.11 11:15:00	0:15:00		1,797.57	449.39	1,529.82	382.46	
		10.11 11:30:00	0:15:00		1,766.06	441.51	1,537.27	384.32	
		10.11 11:45:00	0:15:00		1,741.99	435.50	1,556.62	389.16	
		10.11 12:00:00	0:15:00		1,715.68	428.92	1,563.57	390.89	
		10.11 12:15:00	0:15:00		1,697.07	424.27	1,580.94	395.24	
		10.11 12:30:00	0:15:00		1,675.24	418.81	1,588.39	397.10	
		10.11 12:45:00	0:15:00		1,658.61	414.65	1,606.50	401.63	
		10.11 13:00:00	0:15:00		1,676.23	419.06	1,621.64	405.41	
		10.11 13:15:00	0:15:00		1,749.43	437.36	1,643.47	410.87	
		10.11 13:30:00	0:15:00		1,902.04	475.51	1,628.58	407.15	
		10.11 13:45:00	0:15:00		2,208.01	552.00	1,611.96	402.99	
		10.11 14:00:00	0:15:00		2,543.00	635.75	1,580.94	395.24	
		10.11 14:15:00	0:15:00		2,886.93	721.73	1,569.28	392.32	
		10.11 14:30:00	0:15:00		3,240.79	810.20	1,578.46	394.62	
		10.11 14:45:00	0:15:00		3,613.76	903.44	1,665.31	416.33	
		10.11 15:00:00	0:15:00		4,012.77	1,003.19	1,748.19	437.05	
		10.11 15:15:00	0:15:00		4,447.53	1,111.88	1,891.12	472.78	
		10.11 15:30:00	0:15:00		4,924.96	1,231.24	2,057.38	514.35	
		10.11 15:45:00	0:15:00		5,454.75	1,363.69	2,305.78	576.44	
		10.11 16:00:00	0:15:00		6,072.64	1,518.16	2,621.67	655.42	
		10.11 16:15:00	0:15:00		6,878.62	1,719.65	3,347.99	837.00	
		10.11 16:30:00	0:15:00		7,956.56	1,989.14	4,173.33	1,043.33	
		10.11 16:45:00	0:15:00		9,389.61	2,347.40	4,089.70	1,022.43	
		10.11 17:00:00	0:15:00		11,151.20	2,787.80	3,383.97	845.99	
		10.11 17:15:00	0:15:00		12,023.19	3,005.80	2,613.97	653.49	
		10.11 17:30:00	0:11:24		13,235.88	2,514.82	1,439.00	273.41	
		10.11 17:37:12	0:03:36	9:21:36	14,053.27	843.20	621.61	37.30	16,931.14
18-Oct	22-Feb	10.18 08:22:48	0:03:36		11,875.04	712.50	449.39	26.96	
		10.18 08:30:00	0:10:48		10,629.35	1,913.28	552.87	99.52	
		10.18 08:45:00	0:15:00		8,309.68	2,077.42	964.30	241.07	
		10.18 09:00:00	0:15:00		5,844.34	1,461.09	1,304.01	326.00	
		10.18 09:15:00	0:15:00		3,961.16	990.29	1,486.15	371.54	
		10.18 09:30:00	0:15:00		2,696.36	674.09	1,534.04	383.51	
		10.18 09:45:00	0:15:00		2,053.41	513.35	1,565.06	391.27	
		10.18 10:00:00	0:15:00		1,903.28	475.82	1,581.93	395.48	
		10.18 10:15:00	0:15:00		1,893.61	473.40	1,604.02	401.00	
		10.18 10:30:00	0:15:00		1,883.68	470.92	1,612.70	403.18	
		10.18 10:45:00	0:15:00		1,878.72	469.68	1,631.07	407.77	
		10.18 11:00:00	0:15:00		1,869.53	467.38	1,636.28	409.07	
		10.18 11:15:00	0:15:00		1,854.89	463.72	1,655.38	413.85	
		10.18 11:30:00	0:15:00		1,816.93	454.23	1,667.05	416.76	
		10.18 11:45:00	0:15:00		1,791.37	447.84	1,685.41	421.35	
		10.18 12:00:00	0:15:00		1,763.58	440.89	1,692.61	423.15	
		10.18 12:15:00	0:15:00		1,744.47	436.12	1,713.70	428.43	
		10.18 12:30:00	0:15:00		1,721.39	430.35	1,720.90	430.22	
		10.18 12:45:00	0:15:00		1,706.25	426.56	1,744.72	436.18	
		10.18 13:00:00	0:15:00		1,735.54	433.88	1,762.58	440.65	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		10.18 13:15:00	0:15:00		1,817.92	454.48	1,785.66	446.42	
		10.18 13:30:00	0:15:00		2,011.23	502.81	1,760.60	440.15	
		10.18 13:45:00	0:15:00		2,327.61	581.90	1,741.49	435.37	
		10.18 14:00:00	0:15:00		2,670.55	667.64	1,709.48	427.37	
		10.18 14:15:00	0:15:00		3,017.21	754.30	1,704.77	426.19	
		10.18 14:30:00	0:15:00		3,381.49	845.37	1,745.71	436.43	
		10.18 14:45:00	0:15:00		3,765.87	941.47	1,862.34	465.59	
		10.18 15:00:00	0:15:00		4,174.81	1,043.70	1,989.64	497.41	
		10.18 15:15:00	0:15:00		4,623.96	1,155.99	2,194.11	548.53	
		10.18 15:30:00	0:15:00		5,122.48	1,280.62	2,439.78	609.94	
		10.18 15:45:00	0:15:00		5,670.89	1,417.72	2,813.48	703.37	
		10.18 16:00:00	0:15:00		6,362.22	1,590.56	3,447.75	861.94	
		10.18 16:15:00	0:15:00		7,286.82	1,821.70	4,385.24	1,096.31	
		10.18 16:30:00	0:15:00		8,552.86	2,138.22	4,867.89	1,216.97	
		10.18 16:45:00	0:15:00		10,247.70	2,561.93	4,154.71	1,038.68	
		10.18 17:00:00	0:15:00		11,377.51	2,844.38	3,297.37	824.34	
		10.18 17:15:00	0:13:12		12,323.19	2,711.10	2,351.68	517.37	
		10.18 17:27:00	0:06:00	9:03:36	13,893.71	1,389.37	781.17	78.12	18,337.44
25-Oct	15-Feb	10.25 07:30:00	0:07:48		11,869.58	1,543.05	645.18	83.87	
		10.25 07:45:00	0:15:00		9,150.15	2,287.54	1,101.52	275.38	
		10.25 08:00:00	0:15:00		6,642.88	1,660.72	1,458.11	364.53	
		10.25 08:15:00	0:15:00		4,617.76	1,154.44	1,639.75	409.94	
		10.25 08:30:00	0:15:00		3,113.00	778.25	1,675.24	418.81	
		10.25 08:45:00	0:15:00		2,260.12	565.03	1,698.56	424.64	
		10.25 09:00:00	0:15:00		1,974.00	493.50	1,711.47	427.87	
		10.25 09:15:00	0:15:00		1,962.84	490.71	1,732.06	433.02	
		10.25 09:30:00	0:15:00		1,947.45	486.86	1,740.50	435.13	
		10.25 09:45:00	0:15:00		1,939.26	484.82	1,759.61	439.90	
		10.25 10:00:00	0:15:00		1,928.10	482.02	1,765.81	441.45	
		10.25 10:15:00	0:15:00		1,912.46	478.12	1,783.43	445.86	
		10.25 10:30:00	0:15:00		1,875.74	468.94	1,794.35	448.59	
		10.25 10:45:00	0:15:00		1,843.73	460.93	1,818.17	454.54	
		10.25 11:00:00	0:15:00		1,813.45	453.36	1,826.61	456.65	
		10.25 11:15:00	0:15:00		1,794.59	448.65	1,850.92	462.73	
		10.25 11:30:00	0:15:00		1,771.52	442.88	1,860.35	465.09	
		10.25 11:45:00	0:15:00		1,759.11	439.78	1,891.12	472.78	
		10.25 12:00:00	0:15:00		1,796.08	449.02	1,913.70	478.43	
		10.25 12:15:00	0:15:00		1,887.40	471.85	1,932.81	483.20	
		10.25 12:30:00	0:15:00		2,113.46	528.37	1,896.58	474.15	
		10.25 12:45:00	0:15:00		2,440.02	610.01	1,874.99	468.75	
		10.25 13:00:00	0:15:00		2,782.47	695.62	1,843.98	460.99	
		10.25 13:15:00	0:15:00		3,142.03	785.51	1,855.89	463.97	
		10.25 13:30:00	0:15:00		3,512.51	878.13	1,944.97	486.24	
		10.25 13:45:00	0:15:00		3,904.09	976.02	2,085.17	521.29	
		10.25 14:00:00	0:15:00		4,321.96	1,080.49	2,263.59	565.90	
		10.25 14:15:00	0:15:00		4,783.77	1,195.94	2,555.91	638.98	
		10.25 14:30:00	0:15:00		5,287.25	1,321.81	2,919.94	729.98	
		10.25 14:45:00	0:15:00		5,866.68	1,466.67	3,486.95	871.74	
		10.25 15:00:00	0:15:00		6,639.65	1,659.91	4,400.88	1,100.22	
		10.25 15:15:00	0:15:00		7,716.11	1,929.03	5,607.61	1,401.90	
		10.25 15:30:00	0:15:00		9,142.21	2,285.55	5,062.43	1,265.61	
		10.25 15:45:00	0:15:00		10,621.41	2,655.35	4,053.47	1,013.37	
		10.25 16:00:00	0:15:00		11,583.22	2,895.81	3,091.66	772.91	
		10.25 16:15:00	0:09:00		13,196.92	1,979.54	1,477.96	221.69	
		10.25 16:18:00	0:01:48	8:48:36	13,679.81	410.39	995.07	29.85	19,809.94
1-Nov	8-Feb	11.01 07:36:35	0:04:12		12,224.43	855.71	584.88	40.94	
		11.01 07:45:00	0:11:24		10,265.32	1,950.41	1,079.69	205.14	
		11.01 08:00:00	0:15:00		7,467.47	1,866.87	1,694.34	423.59	
		11.01 08:15:00	0:15:00		5,281.05	1,320.26	1,832.31	458.08	
		11.01 08:30:00	0:15:00		3,570.58	892.64	1,840.25	460.06	
		11.01 08:45:00	0:15:00		2,516.45	629.11	1,853.65	463.41	
		11.01 09:00:00	0:15:00		2,073.51	518.38	1,856.38	464.10	
		11.01 09:15:00	0:15:00		2,033.81	508.45	1,867.55	466.89	
		11.01 09:30:00	0:15:00		2,013.46	503.37	1,869.53	467.38	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		11.01 09:45:00	0:15:00		2,001.05	500.26	1,888.64	472.16	
		11.01 10:00:00	0:15:00		1,986.91	496.73	1,894.85	473.71	
		11.01 10:15:00	0:15:00		1,974.75	493.69	1,911.72	477.93	
		11.01 10:30:00	0:15:00		1,932.07	483.02	1,925.37	481.34	
		11.01 10:45:00	0:15:00		1,900.55	475.14	1,950.68	487.67	
		11.01 11:00:00	0:15:00		1,866.56	466.64	1,960.60	490.15	
		11.01 11:15:00	0:15:00		1,846.46	461.61	1,988.15	497.04	
		11.01 11:30:00	0:15:00		1,824.62	456.16	2,000.56	500.14	
		11.01 11:45:00	0:15:00		1,812.46	453.12	2,041.50	510.38	
		11.01 12:00:00	0:15:00		1,857.38	464.34	2,072.27	518.07	
		11.01 12:15:00	0:15:00		1,955.89	488.97	2,076.74	519.18	
		11.01 12:30:00	0:15:00		2,202.55	550.64	2,036.04	509.01	
		11.01 12:45:00	0:15:00		2,535.31	633.83	2,013.96	503.49	
		11.01 13:00:00	0:15:00		2,878.75	719.69	1,980.46	495.11	
		11.01 13:15:00	0:15:00		3,247.99	812.00	2,016.44	504.11	
		11.01 13:30:00	0:15:00		3,620.70	905.18	2,145.97	536.49	
		11.01 13:45:00	0:15:00		4,020.72	1,005.18	2,329.60	582.40	
		11.01 14:00:00	0:15:00		4,442.56	1,110.64	2,573.03	643.26	
		11.01 14:15:00	0:15:00		4,913.55	1,228.39	2,965.60	741.40	
		11.01 14:30:00	0:15:00		5,423.24	1,355.81	3,463.13	865.78	
		11.01 14:45:00	0:15:00		6,053.28	1,513.32	4,323.70	1,080.93	
		11.01 15:00:00	0:15:00		6,909.88	1,727.47	5,466.66	1,366.67	
		11.01 15:15:00	0:15:00		8,130.27	2,032.57	6,051.30	1,512.82	
		11.01 15:30:00	0:15:00		9,665.05	2,416.26	4,960.45	1,240.11	
		11.01 15:45:00	0:15:00		10,713.97	2,678.49	3,960.91	990.23	
		11.01 16:00:00	0:12:36		11,978.77	2,515.54	2,696.11	566.18	
		11.01 16:10:12	0:05:24	8:33:36	13,443.58	1,209.92	1,231.30	110.82	21,126.16
8-Nov	1-Feb	11.08 07:43:48	0:00:36		12,186.71	121.87	874.47	8.75	
		11.08 07:45:00	0:07:48		11,961.40	1,554.98	919.13	119.49	
		11.08 08:00:00	0:15:00		9,005.23	2,251.31	1,377.46	344.37	
		11.08 08:15:00	0:15:00		6,002.41	1,500.60	2,038.52	509.63	
		11.08 08:30:00	0:15:00		4,112.78	1,028.19	2,017.18	504.30	
		11.08 08:45:00	0:15:00		2,847.23	711.81	2,018.17	504.54	
		11.08 09:00:00	0:15:00		2,228.35	557.09	2,009.49	502.37	
		11.08 09:15:00	0:15:00		2,106.02	526.50	2,014.70	503.68	
		11.08 09:30:00	0:15:00		2,080.96	520.24	2,009.74	502.43	
		11.08 09:45:00	0:15:00		2,064.08	516.02	2,022.89	505.72	
		11.08 10:00:00	0:15:00		2,046.22	511.55	2,021.90	505.47	
		11.08 10:15:00	0:15:00		2,036.79	509.20	2,038.03	509.51	
		11.08 10:30:00	0:15:00		1,993.11	498.28	2,053.41	513.35	
		11.08 10:45:00	0:15:00		1,956.14	489.03	2,081.20	520.30	
		11.08 11:00:00	0:15:00		1,921.40	480.35	2,094.60	523.65	
		11.08 11:15:00	0:15:00		1,901.05	475.26	2,123.64	530.91	
		11.08 11:30:00	0:15:00		1,876.23	469.06	2,139.77	534.94	
		11.08 11:45:00	0:15:00		1,864.08	466.02	2,191.88	547.97	
		11.08 12:00:00	0:15:00		1,914.20	478.55	2,230.84	557.71	
		11.08 12:15:00	0:15:00		2,020.66	505.16	2,221.65	555.41	
		11.08 12:30:00	0:15:00		2,273.27	568.32	2,176.24	544.06	
		11.08 12:45:00	0:15:00		2,609.26	652.32	2,149.94	537.49	
		11.08 13:00:00	0:15:00		2,962.87	740.72	2,122.15	530.54	
		11.08 13:15:00	0:15:00		3,330.87	832.72	2,182.45	545.61	
		11.08 13:30:00	0:15:00		3,706.31	926.58	2,346.22	586.56	
		11.08 13:45:00	0:15:00		4,110.79	1,027.70	2,582.21	645.55	
		11.08 14:00:00	0:15:00		4,534.38	1,133.59	2,917.46	729.36	
		11.08 14:15:00	0:15:00		4,997.67	1,249.42	3,408.29	852.07	
		11.08 14:30:00	0:15:00		5,508.85	1,377.21	4,055.70	1,013.93	
		11.08 14:45:00	0:15:00		6,188.27	1,547.07	5,224.72	1,306.18	
		11.08 15:00:00	0:15:00		7,149.34	1,787.34	6,624.76	1,656.19	
		11.08 15:15:00	0:15:00		8,441.19	2,110.30	6,170.41	1,542.60	
		11.08 15:30:00	0:15:00		9,789.62	2,447.41	4,885.26	1,221.31	
		11.08 15:45:00	0:15:00		10,851.69	2,712.92	3,823.19	955.80	
		11.08 16:00:00	0:09:00		12,633.87	1,895.08	2,041.00	306.15	
		11.08 16:03:00	0:01:48	8:19:12	13,170.37	395.11	1,504.51	45.14	22,323.03
15-Nov	25-Jan	11.15 07:51:00	0:04:48		12,537.84	1,003.03	816.15	65.29	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		11.15 08:00:00	0:12:00		10,828.86	2,165.77	783.15	156.63	
		11.15 08:15:00	0:15:00		7,638.69	1,909.67	1,535.53	383.88	
		11.15 08:30:00	0:15:00		4,731.90	1,182.98	2,210.24	552.56	
		11.15 08:45:00	0:15:00		3,266.35	816.59	2,187.41	546.85	
		11.15 09:00:00	0:15:00		2,410.00	602.50	2,177.48	544.37	
		11.15 09:15:00	0:15:00		2,177.48	544.37	2,162.84	540.71	
		11.15 09:30:00	0:15:00		2,147.21	536.80	2,148.70	537.18	
		11.15 09:45:00	0:15:00		2,127.61	531.90	2,167.31	541.83	
		11.15 10:00:00	0:15:00		2,106.27	526.57	2,158.38	539.59	
		11.15 10:15:00	0:15:00		2,093.11	523.28	2,169.79	542.45	
		11.15 10:30:00	0:15:00		2,050.68	512.67	2,176.24	544.06	
		11.15 10:45:00	0:15:00		2,012.72	503.18	2,207.51	551.88	
		11.15 11:00:00	0:15:00		1,975.74	493.94	2,224.14	556.03	
		11.15 11:15:00	0:15:00		1,952.66	488.17	2,255.15	563.79	
		11.15 11:30:00	0:15:00		1,929.09	482.27	2,272.77	568.19	
		11.15 11:45:00	0:15:00		1,915.44	478.86	2,329.60	582.40	
		11.15 12:00:00	0:15:00		1,963.58	490.90	2,376.75	594.19	
		11.15 12:15:00	0:15:00		2,077.98	519.49	2,359.38	589.84	
		11.15 12:30:00	0:15:00		2,328.11	582.03	2,311.48	577.87	
		11.15 12:45:00	0:15:00		2,663.35	665.84	2,281.71	570.43	
		11.15 13:00:00	0:15:00		3,016.72	754.18	2,257.88	564.47	
		11.15 13:15:00	0:15:00		3,388.44	847.11	2,360.12	590.03	
		11.15 13:30:00	0:15:00		3,768.10	942.03	2,547.47	636.87	
		11.15 13:45:00	0:15:00		4,169.35	1,042.34	2,830.11	707.53	
		11.15 14:00:00	0:15:00		4,590.71	1,147.68	3,221.93	805.48	
		11.15 14:15:00	0:15:00		5,043.82	1,260.96	3,789.69	947.42	
		11.15 14:30:00	0:15:00		5,565.18	1,391.29	4,754.73	1,188.68	
		11.15 14:45:00	0:15:00		6,290.26	1,572.57	6,212.84	1,553.21	
		11.15 15:00:00	0:15:00		7,337.19	1,834.30	7,337.69	1,834.42	
		11.15 15:15:00	0:15:00		8,613.66	2,153.41	6,061.22	1,515.31	
		11.15 15:30:00	0:15:00		9,791.85	2,447.96	4,883.02	1,220.76	
		11.15 15:45:00	0:13:48		11,083.46	2,549.20	3,591.42	826.03	
		11.15 15:57:36	0:06:36	8:07:12	12,979.54	1,427.75	1,695.34	186.49	23,226.71
22-Nov	18-Jan	11.22 07:57:36	0:01:12		13,460.95	269.22	185.61	3.71	
		11.22 08:00:00	0:09:00		13,123.71	1,968.56	51.37	7.71	
		11.22 08:15:00	0:15:00		9,656.61	2,414.15	766.77	191.69	
		11.22 08:30:00	0:15:00		5,958.74	1,489.68	2,003.53	500.88	
		11.22 08:45:00	0:15:00		3,720.71	930.18	2,362.85	590.71	
		11.22 09:00:00	0:15:00		2,666.58	666.65	2,376.50	594.12	
		11.22 09:15:00	0:15:00		2,254.16	563.54	2,390.64	597.66	
		11.22 09:30:00	0:15:00		2,215.45	553.86	2,285.43	571.36	
		11.22 09:45:00	0:15:00		2,189.15	547.29	2,326.62	581.66	
		11.22 10:00:00	0:15:00		2,161.85	540.46	2,339.52	584.88	
		11.22 10:15:00	0:15:00		2,147.46	536.87	2,347.71	586.93	
		11.22 10:30:00	0:15:00		2,108.75	527.19	2,316.94	579.24	
		11.22 10:45:00	0:15:00		2,066.31	516.58	2,327.61	581.90	
		11.22 11:00:00	0:15:00		2,026.12	506.53	2,343.49	585.87	
		11.22 11:15:00	0:15:00		2,001.30	500.33	2,376.00	594.00	
		11.22 11:30:00	0:15:00		1,977.73	494.43	2,394.61	598.65	
		11.22 11:45:00	0:15:00		1,964.08	491.02	2,446.23	611.56	
		11.22 12:00:00	0:15:00		2,007.75	501.94	2,513.47	628.37	
		11.22 12:15:00	0:15:00		2,118.67	529.67	2,490.65	622.66	
		11.22 12:30:00	0:15:00		2,360.62	590.15	2,434.81	608.70	
		11.22 12:45:00	0:15:00		2,693.88	673.47	2,406.28	601.57	
		11.22 13:00:00	0:15:00		3,044.51	761.13	2,381.46	595.37	
		11.22 13:15:00	0:15:00		3,418.22	854.55	2,512.23	628.06	
		11.22 13:30:00	0:15:00		3,795.15	948.79	2,720.43	680.11	
		11.22 13:45:00	0:15:00		4,190.20	1,047.55	3,057.91	764.48	
		11.22 14:00:00	0:15:00		4,606.09	1,151.52	3,578.02	894.51	
		11.22 14:15:00	0:15:00		5,050.27	1,262.57	4,337.10	1,084.28	
		11.22 14:30:00	0:15:00		5,577.34	1,394.33	5,482.30	1,370.57	
		11.22 14:45:00	0:15:00		6,341.38	1,585.35	6,954.30	1,738.58	
		11.22 15:00:00	0:15:00		7,388.81	1,847.20	7,286.07	1,821.52	
		11.22 15:15:00	0:15:00		8,629.04	2,157.26	6,045.84	1,511.46	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		11.22 15:30:00	0:15:00		9,789.37	2,447.34	4,885.51	1,221.38	
		11.22 15:45:00	0:12:00		11,304.31	2,260.86	3,370.57	674.11	
		11.22 15:54:00	0:04:48	7:57:00	13,153.49	1,052.28	1,521.39	121.71	23,929.95
29-Nov	11-Jan	11.29 08:15:00	0:12:36		11,497.12	2,414.39	225.81	47.42	
		11.29 08:30:00	0:15:00		7,998.50	1,999.63	1,124.10	281.03	
		11.29 08:45:00	0:15:00		4,565.64	1,141.41	2,301.81	575.45	
		11.29 09:00:00	0:15:00		3,003.56	750.89	2,523.15	630.79	
		11.29 09:15:00	0:15:00		2,390.89	597.72	2,642.51	660.63	
		11.29 09:30:00	0:15:00		2,270.54	567.64	2,561.12	640.28	
		11.29 09:45:00	0:15:00		2,245.23	561.31	2,482.70	620.68	
		11.29 10:00:00	0:15:00		2,213.47	553.37	2,503.55	625.89	
		11.29 10:15:00	0:15:00		2,196.84	549.21	2,541.02	635.26	
		11.29 10:30:00	0:15:00		2,163.59	540.90	2,528.12	632.03	
		11.29 10:45:00	0:15:00		2,117.93	529.48	2,543.50	635.88	
		11.29 11:00:00	0:15:00		2,072.77	518.19	2,510.50	627.62	
		11.29 11:15:00	0:15:00		2,043.73	510.93	2,518.44	629.61	
		11.29 11:30:00	0:15:00		2,019.42	504.85	2,497.59	624.40	
		11.29 11:45:00	0:15:00		2,005.02	501.26	2,535.81	633.95	
		11.29 12:00:00	0:15:00		2,029.84	507.46	2,651.20	662.80	
		11.29 12:15:00	0:15:00		2,133.07	533.27	2,615.21	653.80	
		11.29 12:30:00	0:15:00		2,372.03	593.01	2,551.94	637.98	
		11.29 12:45:00	0:15:00		2,696.36	674.09	2,518.19	629.55	
		11.29 13:00:00	0:15:00		3,048.97	762.24	2,490.65	622.66	
		11.29 13:15:00	0:15:00		3,419.21	854.80	2,682.46	670.62	
		11.29 13:30:00	0:15:00		3,794.90	948.73	2,969.57	742.39	
		11.29 13:45:00	0:15:00		4,183.00	1,045.75	3,430.38	857.59	
		11.29 14:00:00	0:15:00		4,591.70	1,147.93	3,977.29	994.32	
		11.29 14:15:00	0:15:00		5,023.47	1,255.87	4,774.58	1,193.65	
		11.29 14:30:00	0:15:00		5,542.10	1,385.53	5,987.52	1,496.88	
		11.29 14:45:00	0:15:00		6,322.52	1,580.63	7,332.72	1,833.18	
		11.29 15:00:00	0:15:00		7,366.97	1,841.74	7,307.91	1,826.98	
		11.29 15:15:00	0:15:00		8,515.14	2,128.79	6,159.74	1,539.93	
		11.29 15:30:00	0:15:00		9,715.43	2,428.86	4,959.45	1,239.86	
		11.29 15:45:00	0:10:48		11,618.46	2,091.32	3,056.42	550.16	
		11.29 15:51:36	0:03:00	7:41:24	13,407.59	670.38	1,267.28	63.36	24,716.62
6-Dec	4-Jan	12.06 08:30:00	0:15:00		9,565.05	2,391.26	717.64	179.41	
		12.06 08:45:00	0:15:00		6,366.94	1,591.74	1,458.85	364.71	
		12.06 09:00:00	0:15:00		3,354.94	838.74	2,629.86	657.46	
		12.06 09:15:00	0:15:00		2,540.52	635.13	2,792.39	698.10	
		12.06 09:30:00	0:15:00		2,320.66	580.17	2,818.94	704.74	
		12.06 09:45:00	0:15:00		2,290.14	572.54	2,790.16	697.54	
		12.06 10:00:00	0:15:00		2,256.15	564.04	2,651.94	662.99	
		12.06 10:15:00	0:15:00		2,234.81	558.70	2,684.70	671.17	
		12.06 10:30:00	0:15:00		2,209.25	552.31	2,684.70	671.17	
		12.06 10:45:00	0:15:00		2,160.61	540.15	2,725.14	681.29	
		12.06 11:00:00	0:15:00		2,111.48	527.87	2,707.77	676.94	
		12.06 11:15:00	0:15:00		2,080.96	520.24	2,737.30	684.33	
		12.06 11:30:00	0:15:00		2,054.16	513.54	2,709.51	677.38	
		12.06 11:45:00	0:15:00		2,038.03	509.51	2,744.00	686.00	
		12.06 12:00:00	0:15:00		2,064.08	516.02	2,827.63	706.91	
		12.06 12:15:00	0:15:00		2,159.87	539.97	2,794.62	698.66	
		12.06 12:30:00	0:15:00		2,362.85	590.71	2,720.92	680.23	
		12.06 12:45:00	0:15:00		2,672.78	668.20	2,719.19	679.80	
		12.06 13:00:00	0:15:00		3,025.15	756.29	2,703.55	675.89	
		12.06 13:15:00	0:15:00		3,392.16	848.04	2,904.30	726.08	
		12.06 13:30:00	0:15:00		3,764.13	941.03	3,200.10	800.02	
		12.06 13:45:00	0:15:00		4,150.99	1,037.75	3,676.29	919.07	
		12.06 14:00:00	0:15:00		4,551.75	1,137.94	4,237.84	1,059.46	
		12.06 14:15:00	0:15:00		4,972.85	1,243.21	5,042.09	1,260.52	
		12.06 14:30:00	0:15:00		5,468.40	1,367.10	6,228.97	1,557.24	
		12.06 14:45:00	0:15:00		6,242.87	1,560.72	7,519.83	1,879.96	
		12.06 15:00:00	0:15:00		7,254.81	1,813.70	7,420.07	1,855.02	
		12.06 15:15:00	0:15:00		8,340.20	2,085.05	6,334.68	1,583.67	
		12.06 15:30:00	0:15:00		9,579.69	2,394.92	5,095.19	1,273.80	

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSFHr	NewSF	NewSFHr	New SFHR Total/d
		12.06 15:45:00	0:10:12		11,816.98	2,008.89	2,857.90	485.84	
		12.06 15:51:00	0:03:00	7:28:12	13,564.67	678.23	1,110.21	55.51	25,610.90
13-Dec	27-Dec	12.13 08:30:00	0:15:00		11,069.56	2,767.39	291.32	72.83	
		12.13 08:45:00	0:15:00		7,677.15	1,919.29	1,059.59	264.90	
		12.13 09:00:00	0:15:00		4,430.40	1,107.60	2,128.10	532.03	
		12.13 09:15:00	0:15:00		2,748.72	687.18	2,848.72	712.18	
		12.13 09:30:00	0:15:00		2,359.87	589.97	2,957.90	739.48	
		12.13 09:45:00	0:15:00		2,325.38	581.35	2,974.28	743.57	
		12.13 10:00:00	0:15:00		2,289.89	572.47	2,880.48	720.12	
		12.13 10:15:00	0:15:00		2,264.83	566.21	2,799.59	699.90	
		12.13 10:30:00	0:15:00		2,235.55	558.89	2,783.95	695.99	
		12.13 10:45:00	0:15:00		2,194.36	548.59	2,837.06	709.26	
		12.13 11:00:00	0:15:00		2,141.75	535.44	2,836.81	709.20	
		12.13 11:15:00	0:15:00		2,108.25	527.06	2,877.26	719.31	
		12.13 11:30:00	0:15:00		2,077.73	519.43	2,858.40	714.60	
		12.13 11:45:00	0:15:00		2,062.84	515.71	2,902.82	725.70	
		12.13 12:00:00	0:15:00		2,065.07	516.27	3,005.55	751.39	
		12.13 12:15:00	0:15:00		2,156.89	539.22	2,983.71	745.93	
		12.13 12:30:00	0:15:00		2,328.85	582.21	2,889.42	722.35	
		12.13 12:45:00	0:15:00		2,629.11	657.28	2,878.99	719.75	
		12.13 13:00:00	0:15:00		2,973.79	743.45	2,847.98	711.99	
		12.13 13:15:00	0:15:00		3,342.53	835.63	3,012.25	753.06	
		12.13 13:30:00	0:15:00		3,708.80	927.20	3,313.75	828.44	
		12.13 13:45:00	0:15:00		4,089.45	1,022.36	3,787.21	946.80	
		12.13 14:00:00	0:15:00		4,481.52	1,120.38	4,322.46	1,080.62	
		12.13 14:15:00	0:15:00		4,901.39	1,225.35	5,117.52	1,279.38	
		12.13 14:30:00	0:15:00		5,370.13	1,342.53	6,263.46	1,565.87	
		12.13 14:45:00	0:15:00		6,100.18	1,525.05	7,532.98	1,883.24	
		12.13 15:00:00	0:15:00		7,071.43	1,767.86	7,603.45	1,900.86	
		12.13 15:15:00	0:15:00		8,129.77	2,032.44	6,545.11	1,636.28	
		12.13 15:30:00	0:15:00		9,356.36	2,339.09	5,318.52	1,329.63	
		12.13 15:45:00	0:10:48		11,493.39	2,068.81	3,181.48	572.67	
		12.13 15:52:11	0:03:36	7:29:24	13,702.89	822.17	971.99	58.32	26,187.32
20-Dec	No Mirror	12.20 08:30:00	0:12:36		12,341.56	2,591.73	15.14	3.18	
		12.20 08:45:00	0:15:00		8,635.74	2,158.94	834.27	208.57	
		12.20 09:00:00	0:15:00		5,331.67	1,332.92	1,764.32	441.08	
		12.20 09:15:00	0:15:00		2,967.83	741.96	2,834.58	708.64	
		12.20 09:30:00	0:15:00		2,418.19	604.55	2,994.38	748.60	
		12.20 09:45:00	0:15:00		2,341.51	585.38	3,039.05	759.76	
		12.20 10:00:00	0:15:00		2,307.51	576.88	2,980.49	745.12	
		12.20 10:15:00	0:15:00		2,280.47	570.12	2,908.52	727.13	
		12.20 10:30:00	0:15:00		2,249.94	562.49	2,817.45	704.36	
		12.20 10:45:00	0:15:00		2,215.20	553.80	2,872.54	718.14	
		12.20 11:00:00	0:15:00		2,161.60	540.40	2,885.20	721.30	
		12.20 11:15:00	0:15:00		2,122.40	530.60	2,926.64	731.66	
		12.20 11:30:00	0:15:00		2,091.63	522.91	2,913.98	728.50	
		12.20 11:45:00	0:15:00		2,074.01	518.50	2,958.90	739.72	
		12.20 12:00:00	0:15:00		2,059.12	514.78	3,037.81	759.45	
		12.20 12:15:00	0:15:00		2,141.26	535.31	3,064.11	766.03	
		12.20 12:30:00	0:15:00		2,287.17	571.79	2,968.08	742.02	
		12.20 12:45:00	0:15:00		2,565.09	641.27	2,945.99	736.50	
		12.20 13:00:00	0:15:00		2,904.30	726.08	2,905.05	726.26	
		12.20 13:15:00	0:15:00		3,269.58	817.39	3,023.66	755.92	
		12.20 13:30:00	0:15:00		3,634.60	908.65	3,307.54	826.89	
		12.20 13:45:00	0:15:00		4,011.53	1,002.88	3,758.92	939.73	
		12.20 14:00:00	0:15:00		4,401.62	1,100.41	4,286.48	1,071.62	
		12.20 14:15:00	0:15:00		4,814.78	1,203.70	5,017.52	1,254.38	
		12.20 14:30:00	0:15:00		5,258.22	1,314.56	6,079.59	1,519.90	
		12.20 14:45:00	0:15:00		5,923.50	1,480.88	7,401.71	1,850.43	
		12.20 15:00:00	0:15:00		6,863.48	1,715.87	7,811.40	1,952.85	
		12.20 15:15:00	0:15:00		7,886.34	1,971.59	6,788.54	1,697.14	
		12.20 15:30:00	0:15:00		9,083.40	2,270.85	5,591.48	1,397.87	
		12.20 15:45:00	0:12:36		10,865.09	2,281.67	3,809.79	800.06	
		12.20 15:54:36	0:04:48	7:30:00	13,687.75	1,095.02	987.13	78.97	26,561.75

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

IMPACT TIMES

Date	Mirror	Date+Time	Duration	Total Duration	ExSF	ExSfHr	NewSF	NewSFHr	New SFHR Total/d
			233:28:12				1,448,655.86	356,578.08	
		Average Duration	8:58:47						



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
172	06.21 06:46:48	0:06:36	11,691.41	1,286.06	0.00	0.00	2,983.46	328.18
172	06.21 07:00:00	0:13:48	10,187.90	2,343.22	0.00	0.00	4,486.98	1,032.01
172	06.21 07:15:00	0:15:00	8,436.73	2,109.18	0.00	0.00	6,238.15	1,559.54
172	06.21 07:30:00	0:15:00	6,354.04	1,588.51	0.00	0.00	8,320.84	2,080.21
172	06.21 07:45:00	0:15:00	4,597.90	1,149.48	0.00	0.00	10,076.97	2,519.24
172	06.21 08:00:00	0:15:00	3,307.79	826.95	0.00	0.00	11,367.09	2,841.77
172	06.21 08:15:00	0:15:00	2,380.22	595.06	0.00	0.00	12,294.66	3,073.66
172	06.21 08:30:00	0:15:00	1,736.53	434.13	0.00	0.00	12,938.35	3,234.59
172	06.21 08:45:00	0:15:00	1,362.08	340.52	0.00	0.00	13,312.80	3,328.20
172	06.21 09:00:00	0:15:00	1,321.63	330.41	0.00	0.00	13,353.25	3,338.31
172	06.21 09:15:00	0:15:00	1,311.45	327.86	0.00	0.00	13,363.42	3,340.86
172	06.21 09:30:00	0:15:00	1,328.58	332.14	18.61	4.65	13,327.69	3,331.92
172	06.21 09:45:00	0:15:00	1,346.19	336.55	88.09	22.02	13,240.59	3,310.15
172	06.21 10:00:00	0:15:00	1,361.08	340.27	143.68	35.92	13,170.12	3,292.53
172	06.21 10:15:00	0:15:00	1,373.74	343.44	201.25	50.31	13,099.89	3,274.97
172	06.21 10:30:00	0:15:00	1,384.66	346.16	243.68	60.92	13,046.54	3,261.64
172	06.21 10:45:00	0:15:00	1,388.63	347.16	288.10	72.02	12,998.15	3,249.54
172	06.21 11:00:00	0:15:00	1,375.48	343.87	316.88	79.22	12,982.52	3,245.63
172	06.21 11:15:00	0:15:00	1,366.05	341.51	352.12	88.03	12,956.71	3,239.18
172	06.21 11:30:00	0:15:00	1,351.65	337.91	369.49	92.37	12,953.73	3,238.43
172	06.21 11:45:00	0:15:00	1,339.74	334.94	397.53	99.38	12,937.61	3,234.40
172	06.21 12:00:00	0:15:00	1,325.35	331.34	403.24	100.81	12,946.29	3,236.57
172	06.21 12:15:00	0:15:00	1,314.43	328.61	427.80	106.95	12,932.64	3,233.16
172	06.21 12:30:00	0:15:00	1,296.81	324.20	422.59	105.65	12,955.47	3,238.87
172	06.21 12:45:00	0:15:00	1,285.65	321.41	439.96	109.99	12,949.27	3,237.32
172	06.21 13:00:00	0:15:00	1,267.78	316.95	425.57	106.39	12,981.53	3,245.38
172	06.21 13:15:00	0:15:00	1,266.79	316.70	437.48	109.37	12,970.61	3,242.65
172	06.21 13:30:00	0:15:00	1,289.62	322.40	414.90	103.73	12,970.36	3,242.59
172	06.21 13:45:00	0:15:00	1,339.25	334.81	419.62	104.90	12,916.02	3,229.00
172	06.21 14:00:00	0:15:00	1,404.51	351.13	388.35	97.09	12,882.02	3,220.51
172	06.21 14:15:00	0:15:00	1,599.30	399.83	375.94	93.99	12,699.63	3,174.91
172	06.21 14:30:00	0:15:00	1,815.94	453.98	335.00	83.75	12,523.95	3,130.99
172	06.21 14:45:00	0:15:00	2,036.79	509.20	310.43	77.61	12,327.66	3,081.92
172	06.21 15:00:00	0:15:00	2,257.88	564.47	262.54	65.64	12,154.46	3,038.61
172	06.21 15:15:00	0:15:00	2,464.59	616.15	225.07	56.27	11,985.22	2,996.31
172	06.21 15:30:00	0:15:00	2,660.13	665.03	168.49	42.12	11,846.26	2,961.56
172	06.21 15:45:00	0:15:00	2,867.08	716.77	117.37	29.34	11,690.42	2,922.61
172	06.21 16:00:00	0:15:00	3,068.58	767.14	65.01	16.25	11,541.29	2,885.32
172	06.21 16:15:00	0:15:00	3,275.53	818.88	24.82	6.20	11,374.53	2,843.63
172	06.21 16:30:00	0:15:00	3,488.69	872.17	0.00	0.00	11,186.19	2,796.55
172	06.21 16:45:00	0:15:00	3,731.13	932.78	0.00	0.00	10,943.75	2,735.94
172	06.21 17:00:00	0:15:00	4,124.19	1,031.05	0.00	0.00	10,550.69	2,637.67
172	06.21 17:15:00	0:15:00	4,698.40	1,174.60	0.00	0.00	9,976.48	2,494.12
172	06.21 17:30:00	0:15:00	5,378.57	1,344.64	0.00	0.00	9,296.31	2,324.08
172	06.21 17:45:00	0:15:00	6,158.99	1,539.75	0.00	0.00	8,515.89	2,128.97
172	06.21 18:00:00	0:15:00	7,046.61	1,761.65	0.00	0.00	7,628.27	1,907.07
172	06.21 18:15:00	0:15:00	8,145.40	2,036.35	0.00	0.00	6,529.47	1,632.37
172	06.21 18:30:00	0:15:00	9,548.92	2,387.23	0.00	0.00	5,125.96	1,281.49
172	06.21 18:45:00	0:15:00	11,147.23	2,786.81	0.00	0.00	3,527.65	881.91
172	06.21 19:00:00	0:15:00	12,906.34	3,226.59	0.00	0.00	1,768.54	442.14
172	06.21 19:15:00	0:18:00	14,598.70	4,379.61	0.00	0.00	76.18	22.85
172	06.21 19:36:00	0:10:48	14,674.88	2,641.48	0.00	0.00	0.00	0.00
179	06.28 06:48:35	0:06:00	11,729.88	1,172.99	0.00	0.00	2,945.00	294.50
179	06.28 07:00:00	0:13:12	10,432.82	2,295.22	0.00	0.00	4,242.06	933.25
179	06.28 07:15:00	0:15:00	8,685.12	2,171.28	0.00	0.00	5,989.76	1,497.44
179	06.28 07:30:00	0:15:00	6,615.09	1,653.77	0.00	0.00	8,059.79	2,014.95
179	06.28 07:45:00	0:15:00	4,777.31	1,194.33	0.00	0.00	9,897.56	2,474.39



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
179	06.28 08:00:00	0:15:00	3,441.05	860.26	0.00	0.00	11,233.83	2,808.46
179	06.28 08:15:00	0:15:00	2,472.78	618.20	0.00	0.00	12,202.10	3,050.53
179	06.28 08:30:00	0:15:00	1,802.54	450.63	0.00	0.00	12,872.34	3,218.09
179	06.28 08:45:00	0:15:00	1,378.95	344.74	0.00	0.00	13,295.93	3,323.98
179	06.28 09:00:00	0:15:00	1,321.88	330.47	0.00	0.00	13,353.00	3,338.25
179	06.28 09:15:00	0:15:00	1,310.96	327.74	0.00	0.00	13,363.92	3,340.98
179	06.28 09:30:00	0:15:00	1,328.58	332.14	18.61	4.65	13,327.69	3,331.92
179	06.28 09:45:00	0:15:00	1,345.70	336.42	88.59	22.15	13,240.59	3,310.15
179	06.28 10:00:00	0:15:00	1,361.08	340.27	145.91	36.48	13,167.88	3,291.97
179	06.28 10:15:00	0:15:00	1,373.99	343.50	202.74	50.68	13,098.16	3,274.54
179	06.28 10:30:00	0:15:00	1,385.40	346.35	246.41	61.60	13,043.07	3,260.77
179	06.28 10:45:00	0:15:00	1,391.61	347.90	291.08	72.77	12,992.20	3,248.05
179	06.28 11:00:00	0:15:00	1,379.20	344.80	320.36	80.09	12,975.32	3,243.83
179	06.28 11:15:00	0:15:00	1,368.28	342.07	356.34	89.09	12,950.26	3,237.57
179	06.28 11:30:00	0:15:00	1,354.63	338.66	373.96	93.49	12,946.29	3,236.57
179	06.28 11:45:00	0:15:00	1,342.72	335.68	402.25	100.56	12,929.91	3,232.48
179	06.28 12:00:00	0:15:00	1,328.82	332.21	408.95	102.24	12,937.11	3,234.28
179	06.28 12:15:00	0:15:00	1,317.41	329.35	432.77	108.19	12,924.70	3,231.18
179	06.28 12:30:00	0:15:00	1,301.03	325.26	428.55	107.14	12,945.30	3,236.32
179	06.28 12:45:00	0:15:00	1,287.88	321.97	445.67	111.42	12,941.33	3,235.33
179	06.28 13:00:00	0:15:00	1,270.01	317.50	432.02	108.01	12,972.84	3,243.21
179	06.28 13:15:00	0:15:00	1,268.03	317.01	443.69	110.92	12,963.16	3,240.79
179	06.28 13:30:00	0:15:00	1,288.13	322.03	422.84	105.71	12,963.91	3,240.98
179	06.28 13:45:00	0:15:00	1,335.77	333.94	427.31	106.83	12,911.80	3,227.95
179	06.28 14:00:00	0:15:00	1,397.31	349.33	397.53	99.38	12,880.04	3,220.01
179	06.28 14:15:00	0:15:00	1,582.68	395.67	385.62	96.41	12,706.58	3,176.65
179	06.28 14:30:00	0:15:00	1,800.55	450.14	344.68	86.17	12,529.65	3,132.41
179	06.28 14:45:00	0:15:00	2,022.14	505.54	321.10	80.28	12,331.63	3,082.91
179	06.28 15:00:00	0:15:00	2,244.98	561.25	273.95	68.49	12,155.94	3,038.99
179	06.28 15:15:00	0:15:00	2,449.45	612.36	236.73	59.18	11,988.69	2,997.17
179	06.28 15:30:00	0:15:00	2,650.70	662.68	180.65	45.16	11,843.53	2,960.88
179	06.28 15:45:00	0:15:00	2,855.42	713.86	129.28	32.32	11,690.17	2,922.54
179	06.28 16:00:00	0:15:00	3,055.67	763.92	77.42	19.36	11,541.78	2,885.45
179	06.28 16:15:00	0:15:00	3,269.08	817.27	28.54	7.13	11,377.26	2,844.32
179	06.28 16:30:00	0:15:00	3,471.57	867.89	1.74	0.43	11,201.57	2,800.39
179	06.28 16:45:00	0:15:00	3,716.98	929.25	0.00	0.00	10,957.89	2,739.47
179	06.28 17:00:00	0:15:00	4,072.83	1,018.21	0.00	0.00	10,602.05	2,650.51
179	06.28 17:15:00	0:15:00	4,652.00	1,163.00	0.00	0.00	10,022.88	2,505.72
179	06.28 17:30:00	0:15:00	5,328.69	1,332.17	0.00	0.00	9,346.18	2,336.55
179	06.28 17:45:00	0:15:00	6,098.44	1,524.61	0.00	0.00	8,576.43	2,144.11
179	06.28 18:00:00	0:15:00	6,990.28	1,747.57	0.00	0.00	7,684.60	1,921.15
179	06.28 18:15:00	0:15:00	8,056.07	2,014.02	0.00	0.00	6,618.81	1,654.70
179	06.28 18:30:00	0:15:00	9,438.00	2,359.50	0.00	0.00	5,236.88	1,309.22
179	06.28 18:45:00	0:15:00	11,047.97	2,761.99	0.00	0.00	3,626.91	906.73
179	06.28 19:00:00	0:15:00	12,815.27	3,203.82	0.00	0.00	1,859.61	464.90
179	06.28 19:15:00	0:18:00	14,539.64	4,361.89	0.00	0.00	135.24	40.57
179	06.28 19:36:36	0:10:48	14,674.88	2,641.48	0.00	0.00	0.00	0.00
186	07.05 06:52:12	0:03:36	11,801.09	708.07	0.00	0.00	2,873.78	172.43
186	07.05 07:00:00	0:11:24	10,838.78	2,059.37	0.00	0.00	3,836.09	728.86
186	07.05 07:15:00	0:15:00	9,052.13	2,263.03	0.00	0.00	5,622.75	1,405.69
186	07.05 07:30:00	0:15:00	7,000.95	1,750.24	0.00	0.00	7,673.93	1,918.48
186	07.05 07:45:00	0:15:00	5,047.30	1,261.82	0.00	0.00	9,627.58	2,406.90
186	07.05 08:00:00	0:15:00	3,629.14	907.29	0.00	0.00	11,045.74	2,761.43
186	07.05 08:15:00	0:15:00	2,590.90	647.72	0.00	0.00	12,083.98	3,021.00
186	07.05 08:30:00	0:15:00	1,881.94	470.49	0.00	0.00	12,792.94	3,198.23
186	07.05 08:45:00	0:15:00	1,398.06	349.51	0.00	0.00	13,276.82	3,319.21
186	07.05 09:00:00	0:15:00	1,320.14	330.04	0.00	0.00	13,354.74	3,338.69



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
186	07.05 09:15:00	0:15:00	1,314.93	328.73	0.00	0.00	13,359.95	3,339.99
186	07.05 09:30:00	0:15:00	1,333.04	333.26	34.49	8.62	13,307.34	3,326.84
186	07.05 09:45:00	0:15:00	1,349.17	337.29	105.71	26.43	13,220.00	3,305.00
186	07.05 10:00:00	0:15:00	1,364.06	341.02	164.77	41.19	13,146.05	3,286.51
186	07.05 10:15:00	0:15:00	1,377.71	344.43	221.84	55.46	13,075.33	3,268.83
186	07.05 10:30:00	0:15:00	1,388.63	347.16	264.52	66.13	13,021.73	3,255.43
186	07.05 10:45:00	0:15:00	1,397.56	349.39	310.43	77.61	12,966.89	3,241.72
186	07.05 11:00:00	0:15:00	1,386.64	346.66	339.96	84.99	12,948.28	3,237.07
186	07.05 11:15:00	0:15:00	1,373.24	343.31	374.45	93.61	12,927.18	3,231.80
186	07.05 11:30:00	0:15:00	1,360.59	340.15	393.56	98.39	12,920.73	3,230.18
186	07.05 11:45:00	0:15:00	1,349.17	337.29	421.85	105.46	12,903.86	3,225.96
186	07.05 12:00:00	0:15:00	1,334.28	333.57	428.55	107.14	12,912.05	3,228.01
186	07.05 12:15:00	0:15:00	1,324.61	331.15	452.12	113.03	12,898.15	3,224.54
186	07.05 12:30:00	0:15:00	1,307.98	327.00	448.15	112.04	12,918.75	3,229.69
186	07.05 12:45:00	0:15:00	1,293.59	323.40	466.02	116.51	12,915.27	3,228.82
186	07.05 13:00:00	0:15:00	1,275.97	318.99	453.12	113.28	12,945.79	3,236.45
186	07.05 13:15:00	0:15:00	1,271.01	317.75	463.79	115.95	12,940.09	3,235.02
186	07.05 13:30:00	0:15:00	1,289.87	322.47	444.93	111.23	12,940.09	3,235.02
186	07.05 13:45:00	0:15:00	1,337.26	334.32	449.64	112.41	12,887.98	3,221.99
186	07.05 14:00:00	0:15:00	1,397.56	349.39	420.61	105.15	12,856.71	3,214.18
186	07.05 14:15:00	0:15:00	1,578.46	394.62	409.44	102.36	12,686.98	3,171.74
186	07.05 14:30:00	0:15:00	1,790.38	447.59	368.75	92.19	12,515.76	3,128.94
186	07.05 14:45:00	0:15:00	2,016.69	504.17	345.17	86.29	12,313.02	3,078.26
186	07.05 15:00:00	0:15:00	2,241.26	560.31	298.27	74.57	12,135.35	3,033.84
186	07.05 15:15:00	0:15:00	2,453.17	613.29	263.53	65.88	11,958.17	2,989.54
186	07.05 15:30:00	0:15:00	2,655.17	663.79	207.70	51.93	11,812.01	2,953.00
186	07.05 15:45:00	0:15:00	2,861.38	715.34	158.57	39.64	11,654.94	2,913.73
186	07.05 16:00:00	0:15:00	3,067.59	766.90	108.69	27.17	11,498.60	2,874.65
186	07.05 16:15:00	0:15:00	3,283.72	820.93	50.37	12.59	11,340.78	2,835.20
186	07.05 16:30:00	0:15:00	3,490.92	872.73	16.13	4.03	11,167.83	2,791.96
186	07.05 16:45:00	0:15:00	3,727.41	931.85	0.00	0.00	10,947.47	2,736.87
186	07.05 17:00:00	0:15:00	4,070.84	1,017.71	0.00	0.00	10,604.04	2,651.01
186	07.05 17:15:00	0:15:00	4,646.04	1,161.51	0.00	0.00	10,028.83	2,507.21
186	07.05 17:30:00	0:15:00	5,319.02	1,329.75	0.00	0.00	9,355.86	2,338.97
186	07.05 17:45:00	0:15:00	6,087.53	1,521.88	0.00	0.00	8,587.35	2,146.84
186	07.05 18:00:00	0:15:00	6,988.05	1,747.01	0.00	0.00	7,686.83	1,921.71
186	07.05 18:15:00	0:15:00	8,069.97	2,017.49	0.00	0.00	6,604.91	1,651.23
186	07.05 18:30:00	0:15:00	9,496.81	2,374.20	0.00	0.00	5,178.07	1,294.52
186	07.05 18:45:00	0:15:00	11,119.19	2,779.80	0.00	0.00	3,555.69	888.92
186	07.05 19:00:00	0:15:00	12,855.47	3,213.87	0.00	0.00	1,819.41	454.85
186	07.05 19:15:00	0:18:00	14,585.05	4,375.51	0.00	0.00	89.83	26.95
186	07.05 19:36:00	0:10:48	14,674.88	2,641.48	0.00	0.00	0.00	0.00
193	07.12 06:56:24	0:01:48	11,927.40	357.82	0.00	0.00	2,747.48	82.42
193	07.12 07:00:00	0:09:00	11,514.98	1,727.25	0.00	0.00	3,159.90	473.98
193	07.12 07:15:00	0:15:00	9,617.41	2,404.35	0.00	0.00	5,057.47	1,264.37
193	07.12 07:30:00	0:15:00	7,539.43	1,884.86	0.00	0.00	7,135.45	1,783.86
193	07.12 07:45:00	0:15:00	5,455.75	1,363.94	0.00	0.00	9,219.13	2,304.78
193	07.12 08:00:00	0:15:00	3,872.32	968.08	0.00	0.00	10,802.55	2,700.64
193	07.12 08:15:00	0:15:00	2,748.97	687.24	0.00	0.00	11,925.91	2,981.48
193	07.12 08:30:00	0:15:00	1,968.05	492.01	0.00	0.00	12,706.83	3,176.71
193	07.12 08:45:00	0:15:00	1,452.90	363.22	0.00	0.00	13,221.98	3,305.50
193	07.12 09:00:00	0:15:00	1,315.18	328.79	0.00	0.00	13,359.70	3,339.93
193	07.12 09:15:00	0:15:00	1,321.13	330.28	1.24	0.31	13,352.51	3,338.13
193	07.12 09:30:00	0:15:00	1,339.25	334.81	65.76	16.44	13,269.87	3,317.47
193	07.12 09:45:00	0:15:00	1,357.86	339.46	138.47	34.62	13,178.56	3,294.64
193	07.12 10:00:00	0:15:00	1,370.26	342.57	196.78	49.20	13,107.83	3,276.96
193	07.12 10:15:00	0:15:00	1,385.40	346.35	255.09	63.77	13,034.38	3,258.60



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
193	07.12 10:30:00	0:15:00	1,395.58	348.89	298.77	74.69	12,980.53	3,245.13
193	07.12 10:45:00	0:15:00	1,407.24	351.81	344.43	86.11	12,923.21	3,230.80
193	07.12 11:00:00	0:15:00	1,395.33	348.83	372.47	93.12	12,907.08	3,226.77
193	07.12 11:15:00	0:15:00	1,384.16	346.04	409.69	102.42	12,881.03	3,220.26
193	07.12 11:30:00	0:15:00	1,371.26	342.81	426.32	106.58	12,877.31	3,219.33
193	07.12 11:45:00	0:15:00	1,360.09	340.02	455.85	113.96	12,858.94	3,214.74
193	07.12 12:00:00	0:15:00	1,344.21	336.05	462.30	115.57	12,868.37	3,217.09
193	07.12 12:15:00	0:15:00	1,331.31	332.83	485.87	121.47	12,857.70	3,214.43
193	07.12 12:30:00	0:15:00	1,314.18	328.55	482.65	120.66	12,878.05	3,219.51
193	07.12 12:45:00	0:15:00	1,302.27	325.57	499.77	124.94	12,872.84	3,218.21
193	07.12 13:00:00	0:15:00	1,282.67	320.67	488.10	122.03	12,904.11	3,226.03
193	07.12 13:15:00	0:15:00	1,276.47	319.12	499.02	124.76	12,899.39	3,224.85
193	07.12 13:30:00	0:15:00	1,294.33	323.58	480.91	120.23	12,899.64	3,224.91
193	07.12 13:45:00	0:15:00	1,339.99	335.00	485.13	121.28	12,849.76	3,212.44
193	07.12 14:00:00	0:15:00	1,405.00	351.25	457.58	114.40	12,812.29	3,203.07
193	07.12 14:15:00	0:15:00	1,583.92	395.98	447.90	111.98	12,643.06	3,160.76
193	07.12 14:30:00	0:15:00	1,797.08	449.27	406.46	101.62	12,471.34	3,117.83
193	07.12 14:45:00	0:15:00	2,024.13	506.03	384.63	96.16	12,266.12	3,066.53
193	07.12 15:00:00	0:15:00	2,253.67	563.42	337.73	84.43	12,083.49	3,020.87
193	07.12 15:15:00	0:15:00	2,467.82	616.95	302.49	75.62	11,904.57	2,976.14
193	07.12 15:30:00	0:15:00	2,675.02	668.75	247.65	61.91	11,752.21	2,938.05
193	07.12 15:45:00	0:15:00	2,888.18	722.04	199.26	49.82	11,587.44	2,896.86
193	07.12 16:00:00	0:15:00	3,098.60	774.65	153.85	38.46	11,422.42	2,855.61
193	07.12 16:15:00	0:15:00	3,322.68	830.67	103.48	25.87	11,248.72	2,812.18
193	07.12 16:30:00	0:15:00	3,542.54	885.63	37.22	9.31	11,095.12	2,773.78
193	07.12 16:45:00	0:15:00	3,769.34	942.34	0.00	0.00	10,905.53	2,726.38
193	07.12 17:00:00	0:15:00	4,117.74	1,029.44	0.00	0.00	10,557.14	2,639.28
193	07.12 17:15:00	0:15:00	4,674.33	1,168.58	0.00	0.00	10,000.55	2,500.14
193	07.12 17:30:00	0:15:00	5,345.32	1,336.33	0.00	0.00	9,329.56	2,332.39
193	07.12 17:45:00	0:15:00	6,137.16	1,534.29	0.00	0.00	8,537.72	2,134.43
193	07.12 18:00:00	0:15:00	7,055.79	1,763.95	0.00	0.00	7,619.09	1,904.77
193	07.12 18:15:00	0:15:00	8,193.54	2,048.39	0.00	0.00	6,481.33	1,620.33
193	07.12 18:30:00	0:15:00	9,682.42	2,420.61	0.00	0.00	4,992.46	1,248.11
193	07.12 18:45:00	0:15:00	11,384.21	2,846.05	0.00	0.00	3,290.67	822.67
193	07.12 19:00:00	0:15:00	13,096.67	3,274.17	0.00	0.00	1,578.21	394.55
193	07.12 19:15:00	0:16:48	14,674.88	4,108.97	0.00	0.00	0.00	0.00
193	07.12 19:33:36	0:09:00	14,674.88	2,201.23	0.00	0.00	0.00	0.00
200	07.19 07:01:11	0:07:48	12,130.63	1,576.98	0.00	0.00	2,544.24	330.75
200	07.19 07:16:11	0:14:24	10,217.67	2,452.24	0.00	0.00	4,457.20	1,069.73
200	07.19 07:30:00	0:14:24	8,234.24	1,976.22	0.00	0.00	6,440.64	1,545.75
200	07.19 07:45:00	0:15:00	5,938.89	1,484.72	0.00	0.00	8,735.99	2,184.00
200	07.19 08:00:00	0:15:00	4,191.69	1,047.92	0.00	0.00	10,483.19	2,620.80
200	07.19 08:15:00	0:15:00	2,927.13	731.78	0.00	0.00	11,747.74	2,936.94
200	07.19 08:30:00	0:15:00	2,074.01	518.50	0.00	0.00	12,600.87	3,150.22
200	07.19 08:45:00	0:15:00	1,539.75	384.94	0.00	0.00	13,135.13	3,283.78
200	07.19 09:00:00	0:15:00	1,309.72	327.43	0.00	0.00	13,365.16	3,341.29
200	07.19 09:15:00	0:15:00	1,331.31	332.83	38.46	9.62	13,305.11	3,326.28
200	07.19 09:30:00	0:15:00	1,348.92	337.23	117.87	29.47	13,208.08	3,302.02
200	07.19 09:45:00	0:15:00	1,366.29	341.57	190.58	47.64	13,118.01	3,279.50
200	07.19 10:00:00	0:15:00	1,381.68	345.42	248.39	62.10	13,044.80	3,261.20
200	07.19 10:15:00	0:15:00	1,394.83	348.71	305.96	76.49	12,974.08	3,243.52
200	07.19 10:30:00	0:15:00	1,406.25	351.56	349.39	87.35	12,919.24	3,229.81
200	07.19 10:45:00	0:15:00	1,417.41	354.35	394.06	98.51	12,863.41	3,215.85
200	07.19 11:00:00	0:15:00	1,408.73	352.18	423.09	105.77	12,843.06	3,210.77
200	07.19 11:15:00	0:15:00	1,398.06	349.51	458.82	114.71	12,818.00	3,204.50
200	07.19 11:30:00	0:15:00	1,381.93	345.48	475.45	118.86	12,817.50	3,204.38
200	07.19 11:45:00	0:15:00	1,371.51	342.88	503.99	126.00	12,799.39	3,199.85



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
200	07.19 12:00:00	0:15:00	1,355.38	338.84	509.94	127.49	12,809.56	3,202.39
200	07.19 12:15:00	0:15:00	1,344.71	336.18	534.26	133.57	12,795.91	3,198.98
200	07.19 12:30:00	0:15:00	1,328.33	332.08	531.03	132.76	12,815.52	3,203.88
200	07.19 12:45:00	0:15:00	1,315.67	328.92	547.91	136.98	12,811.30	3,202.83
200	07.19 13:00:00	0:15:00	1,296.32	324.08	536.49	134.12	12,842.07	3,210.52
200	07.19 13:15:00	0:15:00	1,289.37	322.34	547.41	136.85	12,838.10	3,209.52
200	07.19 13:30:00	0:15:00	1,306.49	326.62	530.29	132.57	12,838.10	3,209.52
200	07.19 13:45:00	0:15:00	1,353.14	338.29	534.01	133.50	12,787.72	3,196.93
200	07.19 14:00:00	0:15:00	1,415.68	353.92	508.45	127.11	12,750.75	3,187.69
200	07.19 14:15:00	0:15:00	1,597.32	399.33	498.03	124.51	12,579.53	3,144.88
200	07.19 14:30:00	0:15:00	1,818.42	454.60	458.33	114.58	12,398.13	3,099.53
200	07.19 14:45:00	0:15:00	2,051.43	512.86	436.74	109.18	12,186.71	3,046.68
200	07.19 15:00:00	0:15:00	2,282.70	570.67	390.83	97.71	12,001.35	3,000.34
200	07.19 15:15:00	0:15:00	2,497.84	624.46	355.59	88.90	11,821.44	2,955.36
200	07.19 15:30:00	0:15:00	2,715.71	678.93	300.75	75.19	11,658.41	2,914.60
200	07.19 15:45:00	0:15:00	2,940.53	735.13	254.60	63.65	11,479.75	2,869.94
200	07.19 16:00:00	0:15:00	3,156.92	789.23	208.20	52.05	11,309.77	2,827.44
200	07.19 16:15:00	0:15:00	3,389.93	847.48	170.73	42.68	11,114.23	2,778.56
200	07.19 16:30:00	0:15:00	3,618.47	904.62	94.54	23.64	10,961.86	2,740.47
200	07.19 16:45:00	0:15:00	3,862.15	965.54	34.74	8.69	10,777.99	2,694.50
200	07.19 17:00:00	0:15:00	4,218.98	1,054.75	0.00	0.00	10,455.89	2,613.97
200	07.19 17:15:00	0:15:00	4,761.43	1,190.36	0.00	0.00	9,913.45	2,478.36
200	07.19 17:30:00	0:15:00	5,440.36	1,360.09	0.00	0.00	9,234.52	2,308.63
200	07.19 17:45:00	0:15:00	6,261.97	1,565.49	0.00	0.00	8,412.91	2,103.23
200	07.19 18:00:00	0:15:00	7,202.94	1,800.74	0.00	0.00	7,471.93	1,867.98
200	07.19 18:15:00	0:15:00	8,441.19	2,110.30	0.00	0.00	6,233.68	1,558.42
200	07.19 18:30:00	0:15:00	10,041.24	2,510.31	0.00	0.00	4,633.64	1,158.41
200	07.19 18:45:00	0:15:00	11,872.31	2,968.08	0.00	0.00	2,802.57	700.64
200	07.19 19:00:00	0:15:00	13,500.15	3,375.04	0.00	0.00	1,174.73	293.68
200	07.19 19:15:00	0:15:00	14,674.88	3,668.72	0.00	0.00	0.00	0.00
200	07.19 19:30:00	0:07:48	14,674.88	1,907.73	0.00	0.00	0.00	0.00
207	07.26 07:07:12	0:03:36	12,403.35	744.20	0.00	0.00	2,271.53	136.29
207	07.26 07:15:00	0:11:24	11,416.22	2,169.08	0.00	0.00	3,258.66	619.15
207	07.26 07:30:00	0:15:00	8,887.61	2,221.90	0.00	0.00	5,787.27	1,446.82
207	07.26 07:45:00	0:15:00	6,543.37	1,635.84	0.00	0.00	8,131.51	2,032.88
207	07.26 08:00:00	0:15:00	4,561.18	1,140.29	0.00	0.00	10,113.70	2,528.43
207	07.26 08:15:00	0:15:00	3,135.58	783.89	0.00	0.00	11,539.30	2,884.83
207	07.26 08:30:00	0:15:00	2,233.32	558.33	0.00	0.00	12,441.56	3,110.39
207	07.26 08:45:00	0:15:00	1,655.88	413.97	0.00	0.00	13,019.00	3,254.75
207	07.26 09:00:00	0:15:00	1,340.24	335.06	18.36	4.59	13,316.28	3,329.07
207	07.26 09:15:00	0:15:00	1,344.71	336.18	109.18	27.30	13,220.99	3,305.25
207	07.26 09:30:00	0:15:00	1,362.82	340.71	187.60	46.90	13,124.46	3,281.12
207	07.26 09:45:00	0:15:00	1,380.93	345.23	260.06	65.01	13,033.89	3,258.47
207	07.26 10:00:00	0:15:00	1,395.33	348.83	318.87	79.72	12,960.68	3,240.17
207	07.26 10:15:00	0:15:00	1,407.49	351.87	374.95	93.74	12,892.44	3,223.11
207	07.26 10:30:00	0:15:00	1,419.89	354.97	415.89	103.97	12,839.09	3,209.77
207	07.26 10:45:00	0:15:00	1,429.82	357.46	460.31	115.08	12,784.75	3,196.19
207	07.26 11:00:00	0:15:00	1,425.60	356.40	487.36	121.84	12,761.92	3,190.48
207	07.26 11:15:00	0:15:00	1,414.68	353.67	522.35	130.59	12,737.85	3,184.46
207	07.26 11:30:00	0:15:00	1,399.55	349.89	539.22	134.81	12,736.11	3,184.03
207	07.26 11:45:00	0:15:00	1,387.14	346.78	567.01	141.75	12,720.73	3,180.18
207	07.26 12:00:00	0:15:00	1,370.51	342.63	573.47	143.37	12,730.90	3,182.73
207	07.26 12:15:00	0:15:00	1,356.62	339.15	596.05	149.01	12,722.21	3,180.55
207	07.26 12:30:00	0:15:00	1,340.24	335.06	593.32	148.33	12,741.32	3,185.33
207	07.26 12:45:00	0:15:00	1,328.08	332.02	609.70	152.42	12,737.10	3,184.28
207	07.26 13:00:00	0:15:00	1,307.98	327.00	598.53	149.63	12,768.37	3,192.09
207	07.26 13:15:00	0:15:00	1,300.78	325.20	609.45	152.36	12,764.65	3,191.16



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
207	07.26 13:30:00	0:15:00	1,319.15	329.79	593.81	148.45	12,761.92	3,190.48
207	07.26 13:45:00	0:15:00	1,367.29	341.82	598.28	149.57	12,709.31	3,177.33
207	07.26 14:00:00	0:15:00	1,434.78	358.70	573.47	143.37	12,666.63	3,166.66
207	07.26 14:15:00	0:15:00	1,627.84	406.96	562.80	140.70	12,484.24	3,121.06
207	07.26 14:30:00	0:15:00	1,855.89	463.97	523.09	130.77	12,295.90	3,073.98
207	07.26 14:45:00	0:15:00	2,088.40	522.10	502.25	125.56	12,084.23	3,021.06
207	07.26 15:00:00	0:15:00	2,324.39	581.10	455.60	113.90	11,894.89	2,973.72
207	07.26 15:15:00	0:15:00	2,550.20	637.55	422.35	105.59	11,702.33	2,925.58
207	07.26 15:30:00	0:15:00	2,777.25	694.31	369.99	92.50	11,527.64	2,881.91
207	07.26 15:45:00	0:15:00	3,009.52	752.38	326.56	81.64	11,338.80	2,834.70
207	07.26 16:00:00	0:15:00	3,242.03	810.51	279.17	69.79	11,153.68	2,788.42
207	07.26 16:15:00	0:15:00	3,484.97	871.24	239.71	59.93	10,950.20	2,737.55
207	07.26 16:30:00	0:15:00	3,731.13	932.78	193.06	48.26	10,750.69	2,687.67
207	07.26 16:45:00	0:15:00	3,991.19	997.80	105.46	26.37	10,578.23	2,644.56
207	07.26 17:00:00	0:15:00	4,396.66	1,099.16	17.12	4.28	10,261.10	2,565.28
207	07.26 17:15:00	0:15:00	4,924.71	1,231.18	0.00	0.00	9,750.17	2,437.54
207	07.26 17:30:00	0:15:00	5,607.11	1,401.78	0.00	0.00	9,067.76	2,266.94
207	07.26 17:45:00	0:15:00	6,452.80	1,613.20	0.00	0.00	8,222.08	2,055.52
207	07.26 18:00:00	0:15:00	7,456.55	1,864.14	0.00	0.00	7,218.33	1,804.58
207	07.26 18:15:00	0:15:00	8,804.48	2,201.12	0.00	0.00	5,870.40	1,467.60
207	07.26 18:30:00	0:15:00	10,584.43	2,646.11	0.00	0.00	4,090.44	1,022.61
207	07.26 18:45:00	0:15:00	12,516.75	3,129.19	0.00	0.00	2,158.13	539.53
207	07.26 19:00:00	0:15:00	14,226.73	3,556.68	0.00	0.00	448.15	112.04
207	07.26 19:15:00	0:12:36	14,674.88	3,081.72	0.00	0.00	0.00	0.00
207	07.26 19:25:12	0:05:24	14,674.88	1,320.74	0.00	0.00	0.00	0.00
214	08.02 07:12:36	0:01:12	12,695.66	253.91	0.00	0.00	1,979.22	39.58
214	08.02 07:15:00	0:09:00	12,450.74	1,867.61	0.00	0.00	2,224.14	333.62
214	08.02 07:30:00	0:15:00	9,787.39	2,446.85	0.00	0.00	4,887.49	1,221.87
214	08.02 07:45:00	0:15:00	7,238.43	1,809.61	0.00	0.00	7,436.45	1,859.11
214	08.02 08:00:00	0:15:00	5,063.18	1,265.79	0.00	0.00	9,611.70	2,402.93
214	08.02 08:15:00	0:15:00	3,461.64	865.41	0.00	0.00	11,213.24	2,803.31
214	08.02 08:30:00	0:15:00	2,453.67	613.42	0.00	0.00	12,221.21	3,055.30
214	08.02 08:45:00	0:15:00	1,806.51	451.63	11.17	2.79	12,857.21	3,214.30
214	08.02 09:00:00	0:15:00	1,404.76	351.19	108.44	27.11	13,161.68	3,290.42
214	08.02 09:15:00	0:15:00	1,362.08	340.52	202.74	50.68	13,110.07	3,277.52
214	08.02 09:30:00	0:15:00	1,380.19	345.05	278.17	69.54	13,016.52	3,254.13
214	08.02 09:45:00	0:15:00	1,398.80	349.70	350.38	87.60	12,925.69	3,231.42
214	08.02 10:00:00	0:15:00	1,411.46	352.86	405.72	101.43	12,857.70	3,214.43
214	08.02 10:15:00	0:15:00	1,425.10	356.28	460.81	115.20	12,788.97	3,197.24
214	08.02 10:30:00	0:15:00	1,435.78	358.94	500.51	125.13	12,738.59	3,184.65
214	08.02 10:45:00	0:15:00	1,448.18	362.05	541.70	135.43	12,684.99	3,171.25
214	08.02 11:00:00	0:15:00	1,444.71	361.18	569.00	142.25	12,661.17	3,165.29
214	08.02 11:15:00	0:15:00	1,431.56	357.89	602.00	150.50	12,641.32	3,160.33
214	08.02 11:30:00	0:15:00	1,418.16	354.54	617.39	154.35	12,639.33	3,159.83
214	08.02 11:45:00	0:15:00	1,406.25	351.56	645.18	161.30	12,623.45	3,155.86
214	08.02 12:00:00	0:15:00	1,390.12	347.53	651.63	162.91	12,633.13	3,158.28
214	08.02 12:15:00	0:15:00	1,375.23	343.81	670.00	167.50	12,629.66	3,157.41
214	08.02 12:30:00	0:15:00	1,358.85	339.71	667.76	166.94	12,648.27	3,162.07
214	08.02 12:45:00	0:15:00	1,343.96	335.99	682.65	170.66	12,648.27	3,162.07
214	08.02 13:00:00	0:15:00	1,325.60	331.40	674.46	168.62	12,674.82	3,168.70
214	08.02 13:15:00	0:15:00	1,318.65	329.66	683.89	170.97	12,672.34	3,168.08
214	08.02 13:30:00	0:15:00	1,340.74	335.18	671.98	168.00	12,662.16	3,165.54
214	08.02 13:45:00	0:15:00	1,392.85	348.21	676.70	169.17	12,605.34	3,151.33
214	08.02 14:00:00	0:15:00	1,463.57	365.89	651.14	162.78	12,560.17	3,140.04
214	08.02 14:15:00	0:15:00	1,671.02	417.75	639.72	159.93	12,364.14	3,091.04
214	08.02 14:30:00	0:15:00	1,904.52	476.13	601.76	150.44	12,168.60	3,042.15
214	08.02 14:45:00	0:15:00	2,146.96	536.74	578.93	144.73	11,948.99	2,987.25



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
214	08.02 15:00:00	0:15:00	2,390.89	597.72	534.26	133.57	11,749.73	2,937.43
214	08.02 15:15:00	0:15:00	2,619.68	654.92	502.74	125.69	11,552.45	2,888.11
214	08.02 15:30:00	0:15:00	2,856.91	714.23	449.15	112.29	11,368.82	2,842.21
214	08.02 15:45:00	0:15:00	3,107.04	776.76	407.95	101.99	11,159.88	2,789.97
214	08.02 16:00:00	0:15:00	3,350.72	837.68	361.05	90.26	10,963.10	2,740.78
214	08.02 16:15:00	0:15:00	3,617.48	904.37	322.59	80.65	10,734.81	2,683.70
214	08.02 16:30:00	0:15:00	3,870.34	967.59	274.95	68.74	10,529.59	2,632.40
214	08.02 16:45:00	0:15:00	4,176.55	1,044.14	237.23	59.31	10,261.10	2,565.28
214	08.02 17:00:00	0:15:00	4,643.56	1,160.89	113.16	28.29	9,918.16	2,479.54
214	08.02 17:15:00	0:15:00	5,188.74	1,297.19	0.00	0.00	9,486.14	2,371.53
214	08.02 17:30:00	0:15:00	5,853.03	1,463.26	0.00	0.00	8,821.85	2,205.46
214	08.02 17:45:00	0:15:00	6,740.90	1,685.22	0.00	0.00	7,933.98	1,983.50
214	08.02 18:00:00	0:15:00	7,862.52	1,965.63	0.00	0.00	6,812.36	1,703.09
214	08.02 18:15:00	0:15:00	9,358.34	2,339.59	0.00	0.00	5,316.54	1,329.13
214	08.02 18:30:00	0:15:00	11,343.02	2,835.75	0.00	0.00	3,331.86	832.97
214	08.02 18:45:00	0:15:00	13,155.23	3,288.81	0.00	0.00	1,519.65	379.91
214	08.02 19:00:00	0:15:00	14,673.64	3,668.41	0.00	0.00	1.24	0.31
214	08.02 19:15:00	0:09:00	14,674.88	2,201.23	0.00	0.00	0.00	0.00
214	08.02 19:18:36	0:01:48	14,674.88	440.25	0.00	0.00	0.00	0.00
221	08.09 07:19:12	0:05:24	12,959.44	1,166.35	0.00	0.00	1,715.44	154.39
221	08.09 07:30:00	0:12:36	10,998.09	2,309.60	0.00	0.00	3,676.78	772.13
221	08.09 07:45:00	0:15:00	8,051.85	2,012.96	0.00	0.00	6,623.03	1,655.76
221	08.09 08:00:00	0:15:00	5,689.50	1,422.38	0.00	0.00	8,985.38	2,246.35
221	08.09 08:15:00	0:15:00	3,888.70	972.18	0.00	0.00	10,786.18	2,696.54
221	08.09 08:30:00	0:15:00	2,737.05	684.26	10.17	2.54	11,927.65	2,981.91
221	08.09 08:45:00	0:15:00	1,998.82	499.71	125.56	31.39	12,550.50	3,137.62
221	08.09 09:00:00	0:15:00	1,531.56	382.89	226.56	56.64	12,916.76	3,229.19
221	08.09 09:15:00	0:15:00	1,383.66	345.92	318.12	79.53	12,973.09	3,243.27
221	08.09 09:30:00	0:15:00	1,401.53	350.38	391.82	97.96	12,881.52	3,220.38
221	08.09 09:45:00	0:15:00	1,418.40	354.60	459.82	114.95	12,796.66	3,199.16
221	08.09 10:00:00	0:15:00	1,433.79	358.45	511.93	127.98	12,729.16	3,182.29
221	08.09 10:15:00	0:15:00	1,445.95	361.49	564.29	141.07	12,664.64	3,166.16
221	08.09 10:30:00	0:15:00	1,456.87	364.22	600.51	150.13	12,617.50	3,154.37
221	08.09 10:45:00	0:15:00	1,469.03	367.26	638.73	159.68	12,567.12	3,141.78
221	08.09 11:00:00	0:15:00	1,468.03	367.01	660.57	165.14	12,546.28	3,136.57
221	08.09 11:15:00	0:15:00	1,454.63	363.66	685.88	171.47	12,534.37	3,133.59
221	08.09 11:30:00	0:15:00	1,439.50	359.87	696.30	174.08	12,539.08	3,134.77
221	08.09 11:45:00	0:15:00	1,426.59	356.65	712.92	178.23	12,535.36	3,133.84
221	08.09 12:00:00	0:15:00	1,410.71	352.68	717.89	179.47	12,546.28	3,136.57
221	08.09 12:15:00	0:15:00	1,396.07	349.02	733.02	183.26	12,545.78	3,136.45
221	08.09 12:30:00	0:15:00	1,379.20	344.80	734.02	183.50	12,561.66	3,140.42
221	08.09 12:45:00	0:15:00	1,364.56	341.14	744.19	186.05	12,566.13	3,141.53
221	08.09 13:00:00	0:15:00	1,345.45	336.36	740.22	185.06	12,589.21	3,147.30
221	08.09 13:15:00	0:15:00	1,339.99	335.00	749.90	187.48	12,584.99	3,146.25
221	08.09 13:30:00	0:15:00	1,365.80	341.45	745.18	186.30	12,563.90	3,140.97
221	08.09 13:45:00	0:15:00	1,421.88	355.47	752.88	188.22	12,500.12	3,125.03
221	08.09 14:00:00	0:15:00	1,503.77	375.94	736.50	184.13	12,434.61	3,108.65
221	08.09 14:15:00	0:15:00	1,732.06	433.02	725.33	181.33	12,217.48	3,054.37
221	08.09 14:30:00	0:15:00	1,971.77	492.94	692.08	173.02	12,011.03	3,002.76
221	08.09 14:45:00	0:15:00	2,227.61	556.90	672.48	168.12	11,774.79	2,943.70
221	08.09 15:00:00	0:15:00	2,473.27	618.32	626.07	156.52	11,575.53	2,893.88
221	08.09 15:15:00	0:15:00	2,710.50	677.63	595.30	148.83	11,369.07	2,842.27
221	08.09 15:30:00	0:15:00	2,960.14	740.03	542.45	135.61	11,172.29	2,793.07
221	08.09 15:45:00	0:15:00	3,223.17	805.79	504.73	126.18	10,946.98	2,736.74
221	08.09 16:00:00	0:15:00	3,488.94	872.23	455.85	113.96	10,730.10	2,682.52
221	08.09 16:15:00	0:15:00	3,777.04	944.26	415.15	103.79	10,482.69	2,620.67
221	08.09 16:30:00	0:15:00	4,057.94	1,014.48	366.02	91.50	10,250.92	2,562.73



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
221	08.09 16:45:00	0:15:00	4,439.59	1,109.90	327.55	81.89	9,907.74	2,476.94
221	08.09 17:00:00	0:15:00	4,940.10	1,235.02	288.84	72.21	9,445.94	2,361.48
221	08.09 17:15:00	0:15:00	5,536.39	1,384.10	138.71	34.68	8,999.77	2,249.94
221	08.09 17:30:00	0:15:00	6,233.19	1,558.30	0.00	0.00	8,441.69	2,110.42
221	08.09 17:45:00	0:15:00	7,154.80	1,788.70	0.00	0.00	7,520.07	1,880.02
221	08.09 18:00:00	0:15:00	8,430.77	2,107.69	0.00	0.00	6,244.11	1,561.03
221	08.09 18:15:00	0:15:00	10,118.17	2,529.54	0.00	0.00	4,556.71	1,139.18
221	08.09 18:30:00	0:15:00	12,396.40	3,099.10	0.00	0.00	2,278.48	569.62
221	08.09 18:45:00	0:20:24	14,078.33	4,786.63	0.00	0.00	596.54	202.83
221	08.09 19:10:48	0:12:36	14,674.88	3,081.72	0.00	0.00	0.00	0.00
228	08.16 07:25:12	0:02:24	13,203.37	528.14	0.00	0.00	1,471.51	58.86
228	08.16 07:30:00	0:10:12	12,493.42	2,123.88	0.00	0.00	2,181.45	370.85
228	08.16 07:45:00	0:15:00	9,069.75	2,267.44	0.00	0.00	5,605.13	1,401.28
228	08.16 08:00:00	0:15:00	6,377.86	1,594.46	0.00	0.00	8,297.02	2,074.26
228	08.16 08:15:00	0:15:00	4,441.57	1,110.39	19.60	4.90	10,213.70	2,553.43
228	08.16 08:30:00	0:15:00	3,132.85	783.21	154.35	38.59	11,387.68	2,846.92
228	08.16 08:45:00	0:15:00	2,244.73	561.18	271.72	67.93	12,158.43	3,039.61
228	08.16 09:00:00	0:15:00	1,694.10	423.52	368.00	92.00	12,612.78	3,153.20
228	08.16 09:15:00	0:15:00	1,414.93	353.73	456.59	114.15	12,803.36	3,200.84
228	08.16 09:30:00	0:15:00	1,428.08	357.02	524.58	131.15	12,722.21	3,180.55
228	08.16 09:45:00	0:15:00	1,444.46	361.12	589.10	147.28	12,641.32	3,160.33
228	08.16 10:00:00	0:15:00	1,458.85	364.71	630.79	157.70	12,585.24	3,146.31
228	08.16 10:15:00	0:15:00	1,470.52	367.63	664.29	166.07	12,540.07	3,135.02
228	08.16 10:30:00	0:15:00	1,483.42	370.86	686.62	171.66	12,504.84	3,126.21
228	08.16 10:45:00	0:15:00	1,491.61	372.90	711.93	177.98	12,471.34	3,117.83
228	08.16 11:00:00	0:15:00	1,493.10	373.27	727.81	181.95	12,453.97	3,113.49
228	08.16 11:15:00	0:15:00	1,481.43	370.36	748.91	187.23	12,444.54	3,111.13
228	08.16 11:30:00	0:15:00	1,466.55	366.64	758.34	189.58	12,450.00	3,112.50
228	08.16 11:45:00	0:15:00	1,449.92	362.48	776.70	194.17	12,448.26	3,112.07
228	08.16 12:00:00	0:15:00	1,434.29	358.57	779.92	194.98	12,460.67	3,115.17
228	08.16 12:15:00	0:15:00	1,418.40	354.60	795.06	198.77	12,461.41	3,115.35
228	08.16 12:30:00	0:15:00	1,401.28	350.32	795.31	198.83	12,478.29	3,119.57
228	08.16 12:45:00	0:15:00	1,385.65	346.41	806.48	201.62	12,482.75	3,120.69
228	08.16 13:00:00	0:15:00	1,367.53	341.88	802.75	200.69	12,504.59	3,126.15
228	08.16 13:15:00	0:15:00	1,364.81	341.20	812.93	203.23	12,497.15	3,124.29
228	08.16 13:30:00	0:15:00	1,395.08	348.77	810.94	202.74	12,468.86	3,117.21
228	08.16 13:45:00	0:15:00	1,455.38	363.85	816.65	204.16	12,402.85	3,100.71
228	08.16 14:00:00	0:15:00	1,570.52	392.63	801.02	200.25	12,303.34	3,075.84
228	08.16 14:15:00	0:15:00	1,805.51	451.38	792.33	198.08	12,077.03	3,019.26
228	08.16 14:30:00	0:15:00	2,056.39	514.10	768.01	192.00	11,850.48	2,962.62
228	08.16 14:45:00	0:15:00	2,326.12	581.53	753.12	188.28	11,595.63	2,898.91
228	08.16 15:00:00	0:15:00	2,575.76	643.94	724.59	181.15	11,374.53	2,843.63
228	08.16 15:15:00	0:15:00	2,824.65	706.16	698.78	174.70	11,151.45	2,787.86
228	08.16 15:30:00	0:15:00	3,084.71	771.18	651.14	162.78	10,939.03	2,734.76
228	08.16 15:45:00	0:15:00	3,365.11	841.28	613.17	153.29	10,696.60	2,674.15
228	08.16 16:00:00	0:15:00	3,650.23	912.56	560.31	140.08	10,464.33	2,616.08
228	08.16 16:15:00	0:15:00	3,958.68	989.67	518.87	129.72	10,197.33	2,549.33
228	08.16 16:30:00	0:15:00	4,287.97	1,071.99	467.26	116.82	9,919.65	2,479.91
228	08.16 16:45:00	0:15:00	4,762.18	1,190.54	424.83	106.21	9,487.87	2,371.97
228	08.16 17:00:00	0:15:00	5,309.34	1,327.34	397.53	99.38	8,968.01	2,242.00
228	08.16 17:15:00	0:15:00	5,967.42	1,491.86	381.65	95.41	8,325.81	2,081.45
228	08.16 17:30:00	0:15:00	6,746.85	1,686.71	158.32	39.58	7,769.71	1,942.43
228	08.16 17:45:00	0:15:00	7,735.22	1,933.80	0.00	0.00	6,939.66	1,734.92
228	08.16 18:00:00	0:15:00	9,159.08	2,289.77	0.00	0.00	5,515.80	1,378.95
228	08.16 18:15:00	0:15:00	11,135.32	2,783.83	0.00	0.00	3,539.56	884.89
228	08.16 18:30:00	0:15:00	13,142.57	3,285.64	0.00	0.00	1,532.30	383.08
228	08.16 18:45:00	0:16:12	14,674.88	3,962.22	0.00	0.00	0.00	0.00



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
228	08.16 19:02:23	0:08:24	14,674.88	2,054.48	0.00	0.00	0.00	0.00
235	08.23 07:31:48	0:06:36	13,384.02	1,472.24	0.00	0.00	1,290.86	141.99
235	08.23 07:45:00	0:13:48	10,367.06	2,384.42	0.00	0.00	4,307.82	990.80
235	08.23 08:00:00	0:15:00	7,258.53	1,814.63	43.67	10.92	7,372.68	1,843.17
235	08.23 08:15:00	0:15:00	5,200.90	1,300.23	201.99	50.50	9,271.99	2,318.00
235	08.23 08:30:00	0:15:00	3,644.77	911.19	335.74	83.94	10,694.36	2,673.59
235	08.23 08:45:00	0:15:00	2,559.13	639.78	449.39	112.35	11,666.35	2,916.59
235	08.23 09:00:00	0:15:00	1,875.74	468.94	539.47	134.87	12,259.67	3,064.92
235	08.23 09:15:00	0:15:00	1,482.92	370.73	606.22	151.56	12,585.73	3,146.43
235	08.23 09:30:00	0:15:00	1,461.09	365.27	645.43	161.36	12,568.36	3,142.09
235	08.23 09:45:00	0:15:00	1,475.97	368.99	684.14	171.04	12,514.76	3,128.69
235	08.23 10:00:00	0:15:00	1,489.13	372.28	712.43	178.11	12,473.32	3,118.33
235	08.23 10:15:00	0:15:00	1,501.78	375.45	742.21	185.55	12,430.89	3,107.72
235	08.23 10:30:00	0:15:00	1,508.98	377.24	763.05	190.76	12,402.85	3,100.71
235	08.23 10:45:00	0:15:00	1,519.40	379.85	787.37	196.84	12,368.11	3,092.03
235	08.23 11:00:00	0:15:00	1,527.84	381.96	801.02	200.25	12,346.02	3,086.51
235	08.23 11:15:00	0:15:00	1,510.47	377.62	821.36	205.34	12,343.05	3,085.76
235	08.23 11:30:00	0:15:00	1,491.61	372.90	829.80	207.45	12,353.47	3,088.37
235	08.23 11:45:00	0:15:00	1,475.48	368.87	846.68	211.67	12,352.72	3,088.18
235	08.23 12:00:00	0:15:00	1,458.60	364.65	850.89	212.72	12,365.38	3,091.35
235	08.23 12:15:00	0:15:00	1,442.23	360.56	864.79	216.20	12,367.86	3,091.97
235	08.23 12:30:00	0:15:00	1,424.61	356.15	865.53	216.38	12,384.74	3,096.18
235	08.23 12:45:00	0:15:00	1,408.73	352.18	876.45	219.11	12,389.70	3,097.42
235	08.23 13:00:00	0:15:00	1,390.61	347.65	873.72	218.43	12,410.54	3,102.64
235	08.23 13:15:00	0:15:00	1,391.36	347.84	885.39	221.35	12,398.13	3,099.53
235	08.23 13:30:00	0:15:00	1,430.32	357.58	883.40	220.85	12,361.16	3,090.29
235	08.23 13:45:00	0:15:00	1,496.82	374.21	890.60	222.65	12,287.46	3,071.87
235	08.23 14:00:00	0:15:00	1,653.65	413.41	872.98	218.25	12,148.25	3,037.06
235	08.23 14:15:00	0:15:00	1,904.52	476.13	862.81	215.70	11,907.55	2,976.89
235	08.23 14:30:00	0:15:00	2,166.81	541.70	838.24	209.56	11,669.83	2,917.46
235	08.23 14:45:00	0:15:00	2,440.77	610.19	824.09	206.02	11,410.02	2,852.50
235	08.23 15:00:00	0:15:00	2,698.34	674.59	796.55	199.14	11,179.98	2,795.00
235	08.23 15:15:00	0:15:00	2,967.33	741.83	777.94	194.49	10,929.61	2,732.40
235	08.23 15:30:00	0:15:00	3,241.29	810.32	746.42	186.61	10,687.17	2,671.79
235	08.23 15:45:00	0:15:00	3,544.27	886.07	717.64	179.41	10,412.96	2,603.24
235	08.23 16:00:00	0:15:00	3,855.95	963.99	674.21	168.55	10,144.72	2,536.18
235	08.23 16:15:00	0:15:00	4,192.18	1,048.05	628.06	157.02	9,854.64	2,463.66
235	08.23 16:30:00	0:15:00	4,593.19	1,148.30	573.47	143.37	9,508.22	2,377.06
235	08.23 16:45:00	0:15:00	5,131.91	1,282.98	532.52	133.13	9,010.44	2,252.61
235	08.23 17:00:00	0:15:00	5,747.32	1,436.83	516.64	129.16	8,410.92	2,102.73
235	08.23 17:15:00	0:15:00	6,501.93	1,625.48	542.70	135.67	7,630.25	1,907.56
235	08.23 17:30:00	0:15:00	7,387.81	1,846.95	510.93	127.73	6,776.13	1,694.03
235	08.23 17:45:00	0:15:00	8,552.86	2,138.22	175.94	43.98	5,946.08	1,486.52
235	08.23 18:00:00	0:15:00	10,163.08	2,540.77	0.00	0.00	4,511.80	1,127.95
235	08.23 18:15:00	0:15:00	12,305.08	3,076.27	0.00	0.00	2,369.80	592.45
235	08.23 18:30:00	0:15:00	14,089.50	3,522.38	0.00	0.00	585.38	146.34
235	08.23 18:45:00	0:11:24	14,674.88	2,788.23	0.00	0.00	0.00	0.00
235	08.23 18:52:48	0:03:36	14,674.88	880.49	0.00	0.00	0.00	0.00
242	08.30 07:37:48	0:03:36	13,319.25	799.16	2.48	0.15	1,353.14	81.19
242	08.30 07:45:00	0:11:24	12,014.00	2,282.66	73.70	14.00	2,587.17	491.56
242	08.30 08:00:00	0:15:00	8,459.31	2,114.83	255.84	63.96	5,959.73	1,489.93
242	08.30 08:15:00	0:15:00	6,057.75	1,514.44	424.33	106.08	8,192.80	2,048.20
242	08.30 08:30:00	0:15:00	4,266.38	1,066.60	538.23	134.56	9,870.27	2,467.57
242	08.30 08:45:00	0:15:00	2,949.47	737.37	602.50	150.63	11,122.91	2,780.73
242	08.30 09:00:00	0:15:00	2,090.63	522.66	654.61	163.65	11,929.63	2,982.41
242	08.30 09:15:00	0:15:00	1,603.03	400.76	703.00	175.75	12,368.85	3,092.21
242	08.30 09:30:00	0:15:00	1,502.77	375.69	740.22	185.06	12,431.88	3,107.97



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
242	08.30 09:45:00	0:15:00	1,512.20	378.05	775.71	193.93	12,386.97	3,096.74
242	08.30 10:00:00	0:15:00	1,522.38	380.59	801.26	200.32	12,351.24	3,087.81
242	08.30 10:15:00	0:15:00	1,538.26	384.57	828.81	207.20	12,307.81	3,076.95
242	08.30 10:30:00	0:15:00	1,545.70	386.43	847.67	211.92	12,281.51	3,070.38
242	08.30 10:45:00	0:15:00	1,552.90	388.23	870.75	217.69	12,251.23	3,062.81
242	08.30 11:00:00	0:15:00	1,556.87	389.22	883.15	220.79	12,234.85	3,058.71
242	08.30 11:15:00	0:15:00	1,539.75	384.94	901.52	225.38	12,233.61	3,058.40
242	08.30 11:30:00	0:15:00	1,518.90	379.73	909.95	227.49	12,246.02	3,061.51
242	08.30 11:45:00	0:15:00	1,501.04	375.26	925.34	231.33	12,248.50	3,062.13
242	08.30 12:00:00	0:15:00	1,483.42	370.86	929.56	232.39	12,261.90	3,065.48
242	08.30 12:15:00	0:15:00	1,466.79	366.70	942.71	235.68	12,265.38	3,066.34
242	08.30 12:30:00	0:15:00	1,449.42	362.36	943.45	235.86	12,282.00	3,070.50
242	08.30 12:45:00	0:15:00	1,432.80	358.20	955.36	238.84	12,286.72	3,071.68
242	08.30 13:00:00	0:15:00	1,416.17	354.04	953.38	238.35	12,305.33	3,076.33
242	08.30 13:15:00	0:15:00	1,421.63	355.41	967.27	241.82	12,285.97	3,071.49
242	08.30 13:30:00	0:15:00	1,469.03	367.26	965.79	241.45	12,240.07	3,060.02
242	08.30 13:45:00	0:15:00	1,542.23	385.56	973.97	243.49	12,158.67	3,039.67
242	08.30 14:00:00	0:15:00	1,746.21	436.55	952.39	238.10	11,976.29	2,994.07
242	08.30 14:15:00	0:15:00	2,015.44	503.86	941.72	235.43	11,717.72	2,929.43
242	08.30 14:30:00	0:15:00	2,299.08	574.77	916.65	229.16	11,459.15	2,864.79
242	08.30 14:45:00	0:15:00	2,576.50	644.13	901.76	225.44	11,196.61	2,799.15
242	08.30 15:00:00	0:15:00	2,844.01	711.00	876.70	219.18	10,954.17	2,738.54
242	08.30 15:15:00	0:15:00	3,138.31	784.58	858.59	214.65	10,677.98	2,669.50
242	08.30 15:30:00	0:15:00	3,436.33	859.08	829.80	207.45	10,408.75	2,602.19
242	08.30 15:45:00	0:15:00	3,760.41	940.10	805.98	201.50	10,108.49	2,527.12
242	08.30 16:00:00	0:15:00	4,094.41	1,023.60	769.01	192.25	9,811.46	2,452.86
242	08.30 16:15:00	0:15:00	4,477.30	1,119.33	733.27	183.32	9,464.30	2,366.08
242	08.30 16:30:00	0:15:00	4,953.50	1,238.37	683.40	170.85	9,037.99	2,259.50
242	08.30 16:45:00	0:15:00	5,552.27	1,388.07	660.57	165.14	8,462.04	2,115.51
242	08.30 17:00:00	0:15:00	6,249.07	1,562.27	691.09	172.77	7,734.72	1,933.68
242	08.30 17:15:00	0:15:00	7,109.39	1,777.35	794.81	198.70	6,770.67	1,692.67
242	08.30 17:30:00	0:15:00	8,155.83	2,038.96	826.08	206.52	5,692.97	1,423.24
242	08.30 17:45:00	0:15:00	9,525.59	2,381.40	633.02	158.26	4,516.26	1,129.07
242	08.30 18:00:00	0:15:00	11,519.95	2,879.99	96.78	24.19	3,058.16	764.54
242	08.30 18:15:00	0:15:00	13,187.49	3,296.87	0.00	0.00	1,487.39	371.85
242	08.30 18:30:00	0:13:48	14,406.63	3,313.53	0.00	0.00	268.25	61.70
242	08.30 18:42:36	0:06:36	14,665.70	1,613.23	0.00	0.00	9.18	1.01
249	09.06 07:44:24	0:07:48	13,675.10	1,777.76	200.25	26.03	799.53	103.94
249	09.06 08:00:00	0:15:00	9,939.25	2,484.81	404.48	101.12	4,331.15	1,082.79
249	09.06 08:15:00	0:15:00	7,076.64	1,769.16	535.75	133.94	7,062.49	1,765.62
249	09.06 08:30:00	0:15:00	5,002.63	1,250.66	642.20	160.55	9,030.04	2,257.51
249	09.06 08:45:00	0:15:00	3,434.84	858.71	712.43	178.11	10,527.61	2,631.90
249	09.06 09:00:00	0:15:00	2,375.51	593.88	762.06	190.51	11,537.32	2,884.33
249	09.06 09:15:00	0:15:00	1,792.11	448.03	806.48	201.62	12,076.29	3,019.07
249	09.06 09:30:00	0:15:00	1,544.96	386.24	839.73	209.93	12,290.19	3,072.55
249	09.06 09:45:00	0:15:00	1,553.89	388.47	874.47	218.62	12,246.52	3,061.63
249	09.06 10:00:00	0:15:00	1,562.08	390.52	897.55	224.39	12,215.25	3,053.81
249	09.06 10:15:00	0:15:00	1,573.74	393.44	924.35	231.09	12,176.79	3,044.20
249	09.06 10:30:00	0:15:00	1,581.19	395.30	939.98	235.00	12,153.71	3,038.43
249	09.06 10:45:00	0:15:00	1,591.61	397.90	961.82	240.45	12,121.45	3,030.36
249	09.06 11:00:00	0:15:00	1,595.09	398.77	972.98	243.25	12,106.81	3,026.70
249	09.06 11:15:00	0:15:00	1,577.22	394.30	989.61	247.40	12,108.05	3,027.01
249	09.06 11:30:00	0:15:00	1,555.38	388.85	997.80	249.45	12,121.70	3,030.43
249	09.06 11:45:00	0:15:00	1,538.26	384.57	1,012.93	253.23	12,123.69	3,030.92
249	09.06 12:00:00	0:15:00	1,520.14	380.04	1,017.15	254.29	12,137.58	3,034.40
249	09.06 12:15:00	0:15:00	1,502.77	375.69	1,030.55	257.64	12,141.55	3,035.39
249	09.06 12:30:00	0:15:00	1,484.66	371.17	1,031.79	257.95	12,158.43	3,039.61



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
249	09.06 12:45:00	0:15:00	1,467.79	366.95	1,042.71	260.68	12,164.38	3,041.10
249	09.06 13:00:00	0:15:00	1,450.17	362.54	1,040.73	260.18	12,183.98	3,046.00
249	09.06 13:15:00	0:15:00	1,468.03	367.01	1,057.60	264.40	12,149.24	3,037.31
249	09.06 13:30:00	0:15:00	1,519.65	379.91	1,057.35	264.34	12,097.88	3,024.47
249	09.06 13:45:00	0:15:00	1,607.99	402.00	1,062.07	265.52	12,004.82	3,001.21
249	09.06 14:00:00	0:15:00	1,858.12	464.53	1,039.98	260.00	11,776.78	2,944.19
249	09.06 14:15:00	0:15:00	2,141.75	535.44	1,028.32	257.08	11,504.81	2,876.20
249	09.06 14:30:00	0:15:00	2,439.03	609.76	1,003.01	250.75	11,232.84	2,808.21
249	09.06 14:45:00	0:15:00	2,730.11	682.53	989.61	247.40	10,955.16	2,738.79
249	09.06 15:00:00	0:15:00	3,024.16	756.04	971.74	242.94	10,678.98	2,669.74
249	09.06 15:15:00	0:15:00	3,340.79	835.20	975.22	243.80	10,358.87	2,589.72
249	09.06 15:30:00	0:15:00	3,660.90	915.23	942.96	235.74	10,071.02	2,517.76
249	09.06 15:45:00	0:15:00	4,018.48	1,004.62	913.68	228.42	9,742.72	2,435.68
249	09.06 16:00:00	0:15:00	4,379.29	1,094.82	871.99	218.00	9,423.61	2,355.90
249	09.06 16:15:00	0:15:00	4,820.74	1,205.19	840.47	210.12	9,013.67	2,253.42
249	09.06 16:30:00	0:15:00	5,376.34	1,344.09	801.26	200.32	8,497.27	2,124.32
249	09.06 16:45:00	0:15:00	6,033.43	1,508.36	793.82	198.46	7,847.63	1,961.91
249	09.06 17:00:00	0:15:00	6,825.76	1,706.44	991.35	247.84	6,857.77	1,714.44
249	09.06 17:15:00	0:15:00	7,805.94	1,951.49	1,188.87	297.22	5,680.07	1,420.02
249	09.06 17:30:00	0:15:00	9,035.50	2,258.88	1,215.67	303.92	4,423.70	1,105.93
249	09.06 17:45:00	0:15:00	10,726.62	2,681.66	936.75	234.19	3,011.50	752.88
249	09.06 18:00:00	0:15:00	12,473.57	3,118.39	603.99	151.00	1,597.32	399.33
249	09.06 18:15:00	0:16:12	13,981.31	3,774.95	0.00	0.00	693.57	187.26
249	09.06 18:31:48	0:08:24	14,602.42	2,044.34	0.00	0.00	72.46	10.14
256	09.13 07:50:24	0:04:48	13,536.13	1,082.89	231.27	18.50	907.47	72.60
256	09.13 08:00:00	0:12:36	11,474.53	2,409.65	359.56	75.51	2,840.78	596.56
256	09.13 08:15:00	0:15:00	8,196.03	2,049.01	570.74	142.68	5,908.12	1,477.03
256	09.13 08:30:00	0:15:00	5,813.32	1,453.33	721.61	180.40	8,139.94	2,034.99
256	09.13 08:45:00	0:15:00	4,018.73	1,004.68	813.92	203.48	9,842.23	2,460.56
256	09.13 09:00:00	0:15:00	2,739.29	684.82	864.05	216.01	11,071.54	2,767.89
256	09.13 09:15:00	0:15:00	2,000.80	500.20	908.96	227.24	11,765.11	2,941.28
256	09.13 09:30:00	0:15:00	1,610.97	402.74	941.72	235.43	12,122.20	3,030.55
256	09.13 09:45:00	0:15:00	1,602.03	400.51	975.22	243.80	12,097.63	3,024.41
256	09.13 10:00:00	0:15:00	1,608.48	402.12	998.04	249.51	12,068.35	3,017.09
256	09.13 10:15:00	0:15:00	1,617.91	404.48	1,022.61	255.65	12,034.35	3,008.59
256	09.13 10:30:00	0:15:00	1,621.39	405.35	1,038.00	259.50	12,015.49	3,003.87
256	09.13 10:45:00	0:15:00	1,628.09	407.02	1,058.10	264.52	11,988.69	2,997.17
256	09.13 11:00:00	0:15:00	1,629.33	407.33	1,069.76	267.44	11,975.79	2,993.95
256	09.13 11:15:00	0:15:00	1,612.95	403.24	1,086.39	271.60	11,975.54	2,993.89
256	09.13 11:30:00	0:15:00	1,588.39	397.10	1,092.34	273.09	11,994.15	2,998.54
256	09.13 11:45:00	0:15:00	1,571.51	392.88	1,108.22	277.06	11,995.15	2,998.79
256	09.13 12:00:00	0:15:00	1,549.18	387.29	1,111.45	277.86	12,014.25	3,003.56
256	09.13 12:15:00	0:15:00	1,534.29	383.57	1,124.60	281.15	12,015.99	3,004.00
256	09.13 12:30:00	0:15:00	1,512.45	378.11	1,125.84	281.46	12,036.59	3,009.15
256	09.13 12:45:00	0:15:00	1,497.07	374.27	1,138.99	284.75	12,038.82	3,009.71
256	09.13 13:00:00	0:15:00	1,479.95	369.99	1,138.99	284.75	12,055.94	3,013.99
256	09.13 13:15:00	0:15:00	1,510.47	377.62	1,155.87	288.97	12,008.55	3,002.14
256	09.13 13:30:00	0:15:00	1,574.24	393.56	1,158.60	289.65	11,942.04	2,985.51
256	09.13 13:45:00	0:15:00	1,710.97	427.74	1,158.10	289.53	11,805.81	2,951.45
256	09.13 14:00:00	0:15:00	126.00	497.78	1,134.77	283.69	11,548.98	2,887.24
256	09.13 14:15:00	0:15:00	2,295.85	573.96	1,122.61	280.65	11,256.41	2,814.10
256	09.13 14:30:00	0:15:00	2,609.51	652.38	1,097.80	274.45	10,967.57	2,741.89
256	09.13 14:45:00	0:15:00	2,915.97	728.99	1,087.63	271.91	10,671.28	2,667.82
256	09.13 15:00:00	0:15:00	3,227.14	806.79	1,084.40	271.10	10,363.34	2,590.83
256	09.13 15:15:00	0:15:00	3,572.07	893.02	1,109.71	277.43	9,993.10	2,498.28
256	09.13 15:30:00	0:15:00	3,929.15	982.29	1,097.30	274.33	9,648.43	2,412.11
256	09.13 15:45:00	0:15:00	4,310.05	1,077.51	1,087.38	271.84	9,277.45	2,319.36



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
256	09.13 16:00:00	0:15:00	4,718.75	1,179.69	1,056.11	264.03	8,900.02	2,225.00
256	09.13 16:15:00	0:15:00	5,221.99	1,305.50	1,033.03	258.26	8,419.85	2,104.96
256	09.13 16:30:00	0:15:00	5,841.86	1,460.47	964.79	241.20	7,868.22	1,967.06
256	09.13 16:45:00	0:15:00	6,591.01	1,647.75	1,117.90	279.48	6,965.96	1,741.49
256	09.13 17:00:00	0:15:00	7,484.84	1,871.21	1,433.79	358.45	5,756.25	1,439.06
256	09.13 17:15:00	0:15:00	8,609.19	2,152.30	1,785.17	446.29	4,280.52	1,070.13
256	09.13 17:30:00	0:15:00	10,070.27	2,517.57	1,543.97	385.99	3,060.64	765.16
256	09.13 17:45:00	0:15:00	11,841.29	2,960.32	1,278.70	319.67	1,554.89	388.72
256	09.13 18:00:00	0:15:00	13,307.09	3,326.77	870.25	217.56	497.53	124.38
256	09.13 18:15:00	0:10:48	14,041.36	2,527.45	385.87	69.46	247.65	44.58
256	09.13 18:21:00	0:03:00	14,396.21	719.81	181.89	9.10	96.78	4.84
263	09.20 07:57:00	0:01:12	13,188.48	263.77	126.31	2.53	1,360.09	27.20
263	09.20 08:00:00	0:09:00	12,572.83	1,885.92	191.57	28.74	1,910.48	286.57
263	09.20 08:15:00	0:15:00	9,384.65	2,346.16	491.08	122.77	4,799.15	1,199.79
263	09.20 08:30:00	0:15:00	6,715.34	1,678.83	740.72	185.18	7,218.83	1,804.71
263	09.20 08:45:00	0:15:00	4,683.76	1,170.94	886.88	221.72	9,104.24	2,276.06
263	09.20 09:00:00	0:15:00	3,164.86	791.22	971.49	242.87	10,538.53	2,634.63
263	09.20 09:15:00	0:15:00	2,249.20	562.30	1,015.91	253.98	11,409.77	2,852.44
263	09.20 09:30:00	0:15:00	1,733.05	433.26	1,047.67	261.92	11,894.15	2,973.54
263	09.20 09:45:00	0:15:00	1,655.14	413.78	1,079.19	269.80	11,940.55	2,985.14
263	09.20 10:00:00	0:15:00	1,661.59	415.40	1,101.03	275.26	11,912.26	2,978.07
263	09.20 10:15:00	0:15:00	1,666.55	416.64	1,126.34	281.58	11,881.99	2,970.50
263	09.20 10:30:00	0:15:00	1,666.30	416.58	1,141.23	285.31	11,867.35	2,966.84
263	09.20 10:45:00	0:15:00	1,671.51	417.88	1,161.82	290.46	11,841.54	2,960.39
263	09.20 11:00:00	0:15:00	1,672.01	418.00	1,171.75	292.94	11,831.12	2,957.78
263	09.20 11:15:00	0:15:00	1,654.14	413.54	1,190.11	297.53	11,830.62	2,957.66
263	09.20 11:30:00	0:15:00	1,627.10	406.77	1,196.07	299.02	11,851.72	2,962.93
263	09.20 11:45:00	0:15:00	1,607.24	401.81	1,211.70	302.93	11,855.94	2,963.98
263	09.20 12:00:00	0:15:00	1,586.90	396.72	1,214.43	303.61	11,873.55	2,968.39
263	09.20 12:15:00	0:15:00	1,569.28	392.32	1,227.58	306.90	11,878.02	2,969.51
263	09.20 12:30:00	0:15:00	1,550.91	387.73	1,229.81	307.45	11,894.15	2,973.54
263	09.20 12:45:00	0:15:00	1,535.28	383.82	1,241.97	310.49	11,897.62	2,974.41
263	09.20 13:00:00	0:15:00	1,523.37	380.84	1,246.44	311.61	11,905.07	2,976.27
263	09.20 13:15:00	0:15:00	1,566.05	391.51	1,265.79	316.45	11,843.03	2,960.76
263	09.20 13:30:00	0:15:00	1,635.04	408.76	1,267.04	316.76	11,772.81	2,943.20
263	09.20 13:45:00	0:15:00	1,835.29	458.82	1,260.83	315.21	11,578.76	2,894.69
263	09.20 14:00:00	0:15:00	2,134.31	533.58	1,236.76	309.19	11,303.81	2,825.95
263	09.20 14:15:00	0:15:00	2,465.09	616.27	1,223.61	305.90	10,986.18	2,746.55
263	09.20 14:30:00	0:15:00	2,785.94	696.49	1,200.28	300.07	10,688.65	2,672.16
263	09.20 14:45:00	0:15:00	3,122.43	780.61	1,200.04	300.01	10,352.42	2,588.10
263	09.20 15:00:00	0:15:00	3,467.10	866.78	1,220.63	305.16	9,987.15	2,496.79
263	09.20 15:15:00	0:15:00	3,844.28	961.07	1,260.58	315.15	9,570.01	2,392.50
263	09.20 15:30:00	0:15:00	4,231.14	1,057.79	1,279.94	319.99	9,163.80	2,290.95
263	09.20 15:45:00	0:15:00	4,644.31	1,161.08	1,310.71	327.68	8,719.86	2,179.97
263	09.20 16:00:00	0:15:00	5,096.93	1,274.23	1,324.61	331.15	8,253.35	2,063.34
263	09.20 16:15:00	0:15:00	5,689.00	1,422.25	1,368.03	342.01	7,617.84	1,904.46
263	09.20 16:30:00	0:15:00	6,359.99	1,590.00	1,474.49	368.62	6,840.40	1,710.10
263	09.20 16:45:00	0:15:00	7,200.21	1,800.05	1,850.18	462.55	5,624.48	1,406.12
263	09.20 17:00:00	0:15:00	8,228.04	2,057.01	2,296.10	574.02	4,150.74	1,037.69
263	09.20 17:15:00	0:15:00	9,532.29	2,383.07	2,275.01	568.75	2,867.58	716.90
263	09.20 17:30:00	0:15:00	11,343.51	2,835.88	1,933.06	483.27	1,398.30	349.58
263	09.20 17:45:00	0:15:00	12,582.01	3,145.50	1,544.71	386.18	548.16	137.04
263	09.20 18:00:00	0:12:36	13,441.34	2,822.68	1,035.02	217.35	198.52	41.69
263	09.20 18:09:36	0:04:48	13,899.92	1,111.99	711.68	56.94	63.28	5.06
270	09.27 08:03:00	0:06:00	12,756.95	1,275.70	152.86	15.29	1,765.07	176.51
270	09.27 08:15:00	0:13:12	10,524.13	2,315.31	339.71	74.74	3,811.03	838.43
270	09.27 08:30:00	0:15:00	7,833.73	1,958.43	684.64	171.16	6,156.51	1,539.13



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
270	09.27 08:45:00	0:15:00	5,483.29	1,370.82	941.22	235.31	8,250.37	2,062.59
270	09.27 09:00:00	0:15:00	3,745.52	936.38	1,073.73	268.43	9,855.63	2,463.91
270	09.27 09:15:00	0:15:00	2,561.61	640.40	1,130.06	282.52	10,983.20	2,745.80
270	09.27 09:30:00	0:15:00	1,907.75	476.94	1,160.83	290.21	11,606.30	2,901.58
270	09.27 09:45:00	0:15:00	1,713.45	428.36	1,191.85	297.96	11,769.58	2,942.40
270	09.27 10:00:00	0:15:00	1,712.95	428.24	1,212.44	303.11	11,749.48	2,937.37
270	09.27 10:15:00	0:15:00	1,713.20	428.30	1,235.27	308.82	11,726.40	2,931.60
270	09.27 10:30:00	0:15:00	1,714.44	428.61	1,249.42	312.35	11,711.02	2,927.75
270	09.27 10:45:00	0:15:00	1,717.17	429.29	1,268.77	317.19	11,688.93	2,922.23
270	09.27 11:00:00	0:15:00	1,716.18	429.05	1,277.46	319.36	11,681.24	2,920.31
270	09.27 11:15:00	0:15:00	1,699.06	424.76	1,295.82	323.96	11,680.00	2,920.00
270	09.27 11:30:00	0:15:00	1,671.02	417.75	1,303.76	325.94	11,700.10	2,925.03
270	09.27 11:45:00	0:15:00	1,648.44	412.11	1,320.64	330.16	11,705.81	2,926.45
270	09.27 12:00:00	0:15:00	1,628.83	407.21	1,322.12	330.53	11,723.92	2,930.98
270	09.27 12:15:00	0:15:00	1,610.97	402.74	1,337.76	334.44	11,726.15	2,931.54
270	09.27 12:30:00	0:15:00	1,590.62	397.65	1,341.48	335.37	11,742.78	2,935.70
270	09.27 12:45:00	0:15:00	1,573.25	393.31	1,355.62	338.91	11,746.01	2,936.50
270	09.27 13:00:00	0:15:00	1,566.55	391.64	1,364.81	341.20	11,743.52	2,935.88
270	09.27 13:15:00	0:15:00	1,622.38	405.60	1,383.42	345.85	11,669.08	2,917.27
270	09.27 13:30:00	0:15:00	1,697.82	424.45	1,384.16	346.04	11,592.90	2,898.23
270	09.27 13:45:00	0:15:00	1,957.38	489.35	1,371.51	342.88	11,345.99	2,836.50
270	09.27 14:00:00	0:15:00	2,270.04	567.51	1,344.46	336.11	11,060.38	2,765.09
270	09.27 14:15:00	0:15:00	2,607.52	651.88	1,330.31	332.58	10,737.04	2,684.26
270	09.27 14:30:00	0:15:00	2,936.56	734.14	1,310.46	327.62	10,427.85	2,606.96
270	09.27 14:45:00	0:15:00	3,288.44	822.11	1,327.09	331.77	10,059.36	2,514.84
270	09.27 15:00:00	0:15:00	3,656.44	914.11	1,373.99	343.50	9,644.46	2,411.11
270	09.27 15:15:00	0:15:00	4,059.18	1,014.79	1,434.04	358.51	9,181.66	2,295.42
270	09.27 15:30:00	0:15:00	4,488.97	1,122.24	1,491.61	372.90	8,694.30	2,173.58
270	09.27 15:45:00	0:15:00	4,945.31	1,236.33	1,575.23	393.81	8,154.34	2,038.58
270	09.27 16:00:00	0:15:00	5,479.07	1,369.77	1,666.05	416.51	7,529.75	1,882.44
270	09.27 16:15:00	0:15:00	6,120.53	1,530.13	1,797.08	449.27	6,757.27	1,689.32
270	09.27 16:30:00	0:15:00	6,914.10	1,728.53	2,221.41	555.35	5,539.37	1,384.84
270	09.27 16:45:00	0:15:00	7,891.05	1,972.76	2,789.17	697.29	3,994.66	998.67
270	09.27 17:00:00	0:15:00	9,112.93	2,278.23	3,036.32	759.08	2,525.63	631.41
270	09.27 17:15:00	0:15:00	10,705.28	2,676.32	2,710.50	677.63	1,259.09	314.77
270	09.27 17:30:00	0:15:00	12,025.42	3,006.36	2,242.50	560.63	406.96	101.74
270	09.27 17:45:00	0:13:48	13,057.46	3,003.22	1,483.92	341.30	133.50	30.71
270	09.27 17:58:11	0:06:36	13,745.57	1,512.01	899.53	98.95	29.78	3.28
277	10.04 08:09:36	0:02:24	12,400.37	496.02	180.90	7.24	2,093.61	83.74
277	10.04 08:15:00	0:10:12	11,439.79	1,944.77	253.36	43.07	2,981.73	506.89
277	10.04 08:30:00	0:15:00	8,955.10	2,238.78	580.41	145.10	5,139.36	1,284.84
277	10.04 08:45:00	0:15:00	6,376.86	1,594.22	972.73	243.18	7,325.28	1,831.32
277	10.04 09:00:00	0:15:00	4,378.79	1,094.70	1,179.94	294.98	9,116.15	2,279.04
277	10.04 09:15:00	0:15:00	2,991.90	747.98	1,250.91	312.73	10,432.07	2,608.02
277	10.04 09:30:00	0:15:00	2,144.73	536.18	1,282.42	320.61	11,247.73	2,811.93
277	10.04 09:45:00	0:15:00	1,779.71	444.93	1,311.45	327.86	11,583.72	2,895.93
277	10.04 10:00:00	0:15:00	1,771.77	442.94	1,329.82	332.45	11,573.30	2,893.32
277	10.04 10:15:00	0:15:00	1,771.02	442.76	1,352.15	338.04	11,551.71	2,887.93
277	10.04 10:30:00	0:15:00	1,765.81	441.45	1,363.56	340.89	11,545.50	2,886.38
277	10.04 10:45:00	0:15:00	1,765.56	441.39	1,382.92	345.73	11,526.40	2,881.60
277	10.04 11:00:00	0:15:00	1,764.07	441.02	1,391.11	347.78	11,519.70	2,879.92
277	10.04 11:15:00	0:15:00	1,746.45	436.61	1,409.22	352.31	11,519.20	2,879.80
277	10.04 11:30:00	0:15:00	1,717.67	429.42	1,415.92	353.98	11,541.29	2,885.32
277	10.04 11:45:00	0:15:00	1,694.59	423.65	1,434.29	358.57	11,546.00	2,886.50
277	10.04 12:00:00	0:15:00	1,672.01	418.00	1,439.25	359.81	11,563.62	2,890.91
277	10.04 12:15:00	0:15:00	1,653.15	413.29	1,455.38	363.85	11,566.35	2,891.59
277	10.04 12:30:00	0:15:00	1,631.07	407.77	1,459.85	364.96	11,583.97	2,895.99



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
277	10.04 12:45:00	0:15:00	1,615.18	403.80	1,474.98	368.75	11,584.71	2,896.18
277	10.04 13:00:00	0:15:00	1,612.95	403.24	1,489.87	372.47	11,572.06	2,893.01
277	10.04 13:15:00	0:15:00	1,678.71	419.68	1,510.22	377.56	11,485.95	2,871.49
277	10.04 13:30:00	0:15:00	1,789.14	447.28	1,502.53	375.63	11,383.22	2,845.80
277	10.04 13:45:00	0:15:00	2,083.93	520.98	1,488.13	372.03	11,102.81	2,775.70
277	10.04 14:00:00	0:15:00	2,408.76	602.19	1,460.84	365.21	10,805.28	2,701.32
277	10.04 14:15:00	0:15:00	2,744.25	686.06	1,446.45	361.61	10,484.18	2,621.05
277	10.04 14:30:00	0:15:00	3,086.69	771.67	1,436.52	359.13	10,151.67	2,537.92
277	10.04 14:45:00	0:15:00	3,452.21	863.05	1,485.65	371.41	9,737.01	2,434.25
277	10.04 15:00:00	0:15:00	3,837.83	959.46	1,544.46	386.12	9,292.58	2,323.15
277	10.04 15:15:00	0:15:00	4,256.45	1,064.11	1,640.74	410.19	8,777.68	2,194.42
277	10.04 15:30:00	0:15:00	4,712.30	1,178.08	1,746.45	436.61	8,216.13	2,054.03
277	10.04 15:45:00	0:15:00	5,214.55	1,303.64	1,897.82	474.46	7,562.51	1,890.63
277	10.04 16:00:00	0:15:00	5,788.26	1,447.07	2,075.25	518.81	6,811.37	1,702.84
277	10.04 16:15:00	0:15:00	6,505.40	1,626.35	2,484.44	621.11	5,685.03	1,421.26
277	10.04 16:30:00	0:15:00	7,422.30	1,855.58	3,116.47	779.12	4,136.10	1,034.03
277	10.04 16:45:00	0:15:00	8,620.60	2,155.15	3,798.62	949.66	2,255.65	563.91
277	10.04 17:00:00	0:15:00	10,140.75	2,535.19	3,345.01	836.25	1,189.12	297.28
277	10.04 17:15:00	0:15:00	11,603.32	2,900.83	2,749.71	687.43	321.85	80.46
277	10.04 17:30:00	0:16:12	12,684.99	3,424.95	1,989.89	537.27	0.00	0.00
277	10.04 17:47:23	0:08:24	14,056.99	1,967.98	616.64	86.33	1.24	0.17
284	10.11 08:16:11	0:07:12	12,039.32	1,444.72	324.08	38.89	2,311.48	277.38
284	10.11 08:30:00	0:14:24	9,887.39	2,372.97	418.13	100.35	4,369.36	1,048.65
284	10.11 08:45:00	0:15:00	7,290.54	1,822.64	942.21	235.55	6,442.13	1,610.53
284	10.11 09:00:00	0:15:00	5,059.95	1,264.99	1,238.00	309.50	8,376.92	2,094.23
284	10.11 09:15:00	0:15:00	3,428.14	857.04	1,372.75	343.19	9,873.99	2,468.50
284	10.11 09:30:00	0:15:00	2,408.51	602.13	1,407.24	351.81	10,859.13	2,714.78
284	10.11 09:45:00	0:15:00	1,896.58	474.15	1,437.26	359.32	11,341.03	2,835.26
284	10.11 10:00:00	0:15:00	1,835.29	458.82	1,453.89	363.47	11,385.70	2,846.42
284	10.11 10:15:00	0:15:00	1,831.07	457.77	1,475.23	368.81	11,368.58	2,842.14
284	10.11 10:30:00	0:15:00	1,825.36	456.34	1,486.40	371.60	11,363.12	2,840.78
284	10.11 10:45:00	0:15:00	1,820.15	455.04	1,504.02	376.00	11,350.71	2,837.68
284	10.11 11:00:00	0:15:00	1,815.69	453.92	1,511.96	377.99	11,347.24	2,836.81
284	10.11 11:15:00	0:15:00	1,797.57	449.39	1,529.82	382.46	11,347.48	2,836.87
284	10.11 11:30:00	0:15:00	1,766.06	441.51	1,537.27	384.32	11,371.55	2,842.89
284	10.11 11:45:00	0:15:00	1,741.99	435.50	1,556.62	389.16	11,376.27	2,844.07
284	10.11 12:00:00	0:15:00	1,715.68	428.92	1,563.57	390.89	11,395.62	2,848.91
284	10.11 12:15:00	0:15:00	1,697.07	424.27	1,580.94	395.24	11,396.86	2,849.22
284	10.11 12:30:00	0:15:00	1,675.24	418.81	1,588.39	397.10	11,411.26	2,852.81
284	10.11 12:45:00	0:15:00	1,658.61	414.65	1,606.50	401.63	11,409.77	2,852.44
284	10.11 13:00:00	0:15:00	1,676.23	419.06	1,621.64	405.41	11,377.01	2,844.25
284	10.11 13:15:00	0:15:00	1,749.43	437.36	1,643.47	410.87	11,281.97	2,820.49
284	10.11 13:30:00	0:15:00	1,902.04	475.51	1,628.58	407.15	11,144.25	2,786.06
284	10.11 13:45:00	0:15:00	2,208.01	552.00	1,611.96	402.99	10,854.91	2,713.73
284	10.11 14:00:00	0:15:00	2,543.00	635.75	1,580.94	395.24	10,550.93	2,637.73
284	10.11 14:15:00	0:15:00	2,886.93	721.73	1,569.28	392.32	10,218.67	2,554.67
284	10.11 14:30:00	0:15:00	3,240.79	810.20	1,578.46	394.62	9,855.63	2,463.91
284	10.11 14:45:00	0:15:00	3,613.76	903.44	1,665.31	416.33	9,395.81	2,348.95
284	10.11 15:00:00	0:15:00	4,012.77	1,003.19	1,748.19	437.05	8,913.91	2,228.48
284	10.11 15:15:00	0:15:00	4,447.53	1,111.88	1,891.12	472.78	8,336.23	2,084.06
284	10.11 15:30:00	0:15:00	4,924.96	1,231.24	2,057.38	514.35	7,692.54	1,923.13
284	10.11 15:45:00	0:15:00	5,454.75	1,363.69	2,305.78	576.44	6,914.35	1,728.59
284	10.11 16:00:00	0:15:00	6,072.64	1,518.16	2,621.67	655.42	5,980.57	1,495.14
284	10.11 16:15:00	0:15:00	6,878.62	1,719.65	3,347.99	837.00	4,448.27	1,112.07
284	10.11 16:30:00	0:15:00	7,956.56	1,989.14	4,173.33	1,043.33	2,544.99	636.25
284	10.11 16:45:00	0:15:00	9,389.61	2,347.40	4,089.70	1,022.43	1,195.57	298.89
284	10.11 17:00:00	0:15:00	11,151.20	2,787.80	3,383.97	845.99	139.71	34.93



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
284	10.11 17:15:00	0:15:00	12,023.19	3,005.80	2,613.97	653.49	37.72	9.43
284	10.11 17:30:00	0:11:24	13,235.88	2,514.82	1,439.00	273.41	0.00	0.00
284	10.11 17:37:12	0:03:36	14,053.27	843.20	621.61	37.30	0.00	0.00
291	10.18 08:22:48	0:03:36	11,875.04	712.50	449.39	26.96	2,350.44	141.03
291	10.18 08:30:00	0:10:48	10,629.35	1,913.28	552.87	99.52	3,492.66	628.68
291	10.18 08:45:00	0:15:00	8,309.68	2,077.42	964.30	241.07	5,400.91	1,350.23
291	10.18 09:00:00	0:15:00	5,844.34	1,461.09	1,304.01	326.00	7,526.53	1,881.63
291	10.18 09:15:00	0:15:00	3,961.16	990.29	1,486.15	371.54	9,227.57	2,306.89
291	10.18 09:30:00	0:15:00	2,696.36	674.09	1,534.04	383.51	10,444.48	2,611.12
291	10.18 09:45:00	0:15:00	2,053.41	513.35	1,565.06	391.27	11,056.41	2,764.10
291	10.18 10:00:00	0:15:00	1,903.28	475.82	1,581.93	395.48	11,189.66	2,797.42
291	10.18 10:15:00	0:15:00	1,893.61	473.40	1,604.02	401.00	11,177.26	2,794.31
291	10.18 10:30:00	0:15:00	1,883.68	470.92	1,612.70	403.18	11,178.50	2,794.62
291	10.18 10:45:00	0:15:00	1,878.72	469.68	1,631.07	407.77	11,165.10	2,791.27
291	10.18 11:00:00	0:15:00	1,869.53	467.38	1,636.28	409.07	11,169.07	2,792.27
291	10.18 11:15:00	0:15:00	1,854.89	463.72	1,655.38	413.85	11,164.60	2,791.15
291	10.18 11:30:00	0:15:00	1,816.93	454.23	1,667.05	416.76	11,190.90	2,797.73
291	10.18 11:45:00	0:15:00	1,791.37	447.84	1,685.41	421.35	11,198.10	2,799.53
291	10.18 12:00:00	0:15:00	1,763.58	440.89	1,692.61	423.15	11,218.70	2,804.67
291	10.18 12:15:00	0:15:00	1,744.47	436.12	1,713.70	428.43	11,216.71	2,804.18
291	10.18 12:30:00	0:15:00	1,721.39	430.35	1,720.90	430.22	11,232.59	2,808.15
291	10.18 12:45:00	0:15:00	1,706.25	426.56	1,744.72	436.18	11,223.91	2,805.98
291	10.18 13:00:00	0:15:00	1,735.54	433.88	1,762.58	440.65	11,176.76	2,794.19
291	10.18 13:15:00	0:15:00	1,817.92	454.48	1,785.66	446.42	11,071.30	2,767.82
291	10.18 13:30:00	0:15:00	2,011.23	502.81	1,760.60	440.15	10,903.05	2,725.76
291	10.18 13:45:00	0:15:00	2,327.61	581.90	1,741.49	435.37	10,605.77	2,651.44
291	10.18 14:00:00	0:15:00	2,670.55	667.64	1,709.48	427.37	10,294.85	2,573.71
291	10.18 14:15:00	0:15:00	3,017.21	754.30	1,704.77	426.19	9,952.90	2,488.23
291	10.18 14:30:00	0:15:00	3,381.49	845.37	1,745.71	436.43	9,547.68	2,386.92
291	10.18 14:45:00	0:15:00	3,765.87	941.47	1,862.34	465.59	9,046.67	2,261.67
291	10.18 15:00:00	0:15:00	4,174.81	1,043.70	1,989.64	497.41	8,510.43	2,127.61
291	10.18 15:15:00	0:15:00	4,623.96	1,155.99	2,194.11	548.53	7,856.81	1,964.20
291	10.18 15:30:00	0:15:00	5,122.48	1,280.62	2,439.78	609.94	7,112.62	1,778.15
291	10.18 15:45:00	0:15:00	5,670.89	1,417.72	2,813.48	703.37	6,190.51	1,547.63
291	10.18 16:00:00	0:15:00	6,362.22	1,590.56	3,447.75	861.94	4,864.91	1,216.23
291	10.18 16:15:00	0:15:00	7,286.82	1,821.70	4,385.24	1,096.31	3,002.82	750.71
291	10.18 16:30:00	0:15:00	8,552.86	2,138.22	4,867.89	1,216.97	1,254.13	313.53
291	10.18 16:45:00	0:15:00	10,247.70	2,561.93	4,154.71	1,038.68	272.47	68.12
291	10.18 17:00:00	0:15:00	11,377.51	2,844.38	3,297.37	824.34	0.00	0.00
291	10.18 17:15:00	0:13:12	12,323.19	2,711.10	2,351.68	517.37	0.00	0.00
291	10.18 17:27:00	0:06:00	13,893.71	1,389.37	781.17	78.12	0.00	0.00
298	10.25 07:30:00	0:07:48	11,869.58	1,543.05	645.18	83.87	2,160.11	280.82
298	10.25 07:45:00	0:15:00	9,150.15	2,287.54	1,101.52	275.38	4,423.21	1,105.80
298	10.25 08:00:00	0:15:00	6,642.88	1,660.72	1,458.11	364.53	6,573.89	1,643.47
298	10.25 08:15:00	0:15:00	4,617.76	1,154.44	1,639.75	409.94	8,417.37	2,104.34
298	10.25 08:30:00	0:15:00	3,113.00	778.25	1,675.24	418.81	9,886.65	2,471.66
298	10.25 08:45:00	0:15:00	2,260.12	565.03	1,698.56	424.64	10,716.20	2,679.05
298	10.25 09:00:00	0:15:00	1,974.00	493.50	1,711.47	427.87	10,989.41	2,747.35
298	10.25 09:15:00	0:15:00	1,962.84	490.71	1,732.06	433.02	10,979.98	2,745.00
298	10.25 09:30:00	0:15:00	1,947.45	486.86	1,740.50	435.13	10,986.93	2,746.73
298	10.25 09:45:00	0:15:00	1,939.26	484.82	1,759.61	439.90	10,976.01	2,744.00
298	10.25 10:00:00	0:15:00	1,928.10	482.02	1,765.81	441.45	10,980.97	2,745.24
298	10.25 10:15:00	0:15:00	1,912.46	478.12	1,783.43	445.86	10,978.99	2,744.75
298	10.25 10:30:00	0:15:00	1,875.74	468.94	1,794.35	448.59	11,004.79	2,751.20
298	10.25 10:45:00	0:15:00	1,843.73	460.93	1,818.17	454.54	11,012.98	2,753.25
298	10.25 11:00:00	0:15:00	1,813.45	453.36	1,826.61	456.65	11,034.82	2,758.71
298	10.25 11:15:00	0:15:00	1,794.59	448.65	1,850.92	462.73	11,029.36	2,757.34



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
298	10.25 11:30:00	0:15:00	1,771.52	442.88	1,860.35	465.09	11,043.01	2,760.75
298	10.25 11:45:00	0:15:00	1,759.11	439.78	1,891.12	472.78	11,024.65	2,756.16
298	10.25 12:00:00	0:15:00	1,796.08	449.02	1,913.70	478.43	10,965.09	2,741.27
298	10.25 12:15:00	0:15:00	1,887.40	471.85	1,932.81	483.20	10,854.66	2,713.67
298	10.25 12:30:00	0:15:00	2,113.46	528.37	1,896.58	474.15	10,664.83	2,666.21
298	10.25 12:45:00	0:15:00	2,440.02	610.01	1,874.99	468.75	10,359.86	2,589.97
298	10.25 13:00:00	0:15:00	2,782.47	695.62	1,843.98	460.99	10,048.44	2,512.11
298	10.25 13:15:00	0:15:00	3,142.03	785.51	1,855.89	463.97	9,676.96	2,419.24
298	10.25 13:30:00	0:15:00	3,512.51	878.13	1,944.97	486.24	9,217.40	2,304.35
298	10.25 13:45:00	0:15:00	3,904.09	976.02	2,085.17	521.29	8,685.62	2,171.40
298	10.25 14:00:00	0:15:00	4,321.96	1,080.49	2,263.59	565.90	8,089.32	2,022.33
298	10.25 14:15:00	0:15:00	4,783.77	1,195.94	2,555.91	638.98	7,335.21	1,833.80
298	10.25 14:30:00	0:15:00	5,287.25	1,321.81	2,919.94	729.98	6,467.69	1,616.92
298	10.25 14:45:00	0:15:00	5,866.68	1,466.67	3,486.95	871.74	5,321.25	1,330.31
298	10.25 15:00:00	0:15:00	6,639.65	1,659.91	4,400.88	1,100.22	3,634.35	908.59
298	10.25 15:15:00	0:15:00	7,716.11	1,929.03	5,607.61	1,401.90	1,351.16	337.79
298	10.25 15:30:00	0:15:00	9,142.21	2,285.55	5,062.43	1,265.61	470.24	117.56
298	10.25 15:45:00	0:15:00	10,621.41	2,655.35	4,053.47	1,013.37	0.00	0.00
298	10.25 16:00:00	0:15:00	11,583.22	2,895.81	3,091.66	772.91	0.00	0.00
298	10.25 16:15:00	0:09:00	13,196.92	1,979.54	1,477.96	221.69	0.00	0.00
298	10.25 16:18:00	0:01:48	13,679.81	410.39	995.07	29.85	0.00	0.00
305	11.01 07:36:35	0:04:12	12,224.43	855.71	584.88	40.94	1,865.56	130.59
305	11.01 07:45:00	0:11:24	10,265.32	1,950.41	1,079.69	205.14	3,329.88	632.68
305	11.01 08:00:00	0:15:00	7,467.47	1,866.87	1,694.34	423.59	5,513.07	1,378.27
305	11.01 08:15:00	0:15:00	5,281.05	1,320.26	1,832.31	458.08	7,561.52	1,890.38
305	11.01 08:30:00	0:15:00	3,570.58	892.64	1,840.25	460.06	9,264.05	2,316.01
305	11.01 08:45:00	0:15:00	2,516.45	629.11	1,853.65	463.41	10,304.77	2,576.19
305	11.01 09:00:00	0:15:00	2,073.51	518.38	1,856.38	464.10	10,744.98	2,686.25
305	11.01 09:15:00	0:15:00	2,033.81	508.45	1,867.55	466.89	10,773.52	2,693.38
305	11.01 09:30:00	0:15:00	2,013.46	503.37	1,869.53	467.38	10,791.88	2,697.97
305	11.01 09:45:00	0:15:00	2,001.05	500.26	1,888.64	472.16	10,785.18	2,696.30
305	11.01 10:00:00	0:15:00	1,986.91	496.73	1,894.85	473.71	10,793.12	2,698.28
305	11.01 10:15:00	0:15:00	1,974.75	493.69	1,911.72	477.93	10,788.41	2,697.10
305	11.01 10:30:00	0:15:00	1,932.07	483.02	1,925.37	481.34	10,817.44	2,704.36
305	11.01 10:45:00	0:15:00	1,900.55	475.14	1,950.68	487.67	10,823.65	2,705.91
305	11.01 11:00:00	0:15:00	1,866.56	466.64	1,960.60	490.15	10,847.72	2,711.93
305	11.01 11:15:00	0:15:00	1,846.46	461.61	1,988.15	497.04	10,840.27	2,710.07
305	11.01 11:30:00	0:15:00	1,824.62	456.16	2,000.56	500.14	10,849.70	2,712.43
305	11.01 11:45:00	0:15:00	1,812.46	453.12	2,041.50	510.38	10,820.92	2,705.23
305	11.01 12:00:00	0:15:00	1,857.38	464.34	2,072.27	518.07	10,745.23	2,686.31
305	11.01 12:15:00	0:15:00	1,955.89	488.97	2,076.74	519.18	10,642.25	2,660.56
305	11.01 12:30:00	0:15:00	2,202.55	550.64	2,036.04	509.01	10,436.29	2,609.07
305	11.01 12:45:00	0:15:00	2,535.31	633.83	2,013.96	503.49	10,125.61	2,531.40
305	11.01 13:00:00	0:15:00	2,878.75	719.69	1,980.46	495.11	9,815.68	2,453.92
305	11.01 13:15:00	0:15:00	3,247.99	812.00	2,016.44	504.11	9,410.45	2,352.61
305	11.01 13:30:00	0:15:00	3,620.70	905.18	2,145.97	536.49	8,908.21	2,227.05
305	11.01 13:45:00	0:15:00	4,020.72	1,005.18	2,329.60	582.40	8,324.57	2,081.14
305	11.01 14:00:00	0:15:00	4,442.56	1,110.64	2,573.03	643.26	7,659.28	1,914.82
305	11.01 14:15:00	0:15:00	4,913.55	1,228.39	2,965.60	741.40	6,795.74	1,698.93
305	11.01 14:30:00	0:15:00	5,423.24	1,355.81	3,463.13	865.78	5,788.51	1,447.13
305	11.01 14:45:00	0:15:00	6,053.28	1,513.32	4,323.70	1,080.93	4,297.89	1,074.47
305	11.01 15:00:00	0:15:00	6,909.88	1,727.47	5,466.66	1,366.67	2,298.33	574.58
305	11.01 15:15:00	0:15:00	8,130.27	2,032.57	6,051.30	1,512.82	493.32	123.33
305	11.01 15:30:00	0:15:00	9,665.05	2,416.26	4,960.45	1,240.11	49.38	12.35
305	11.01 15:45:00	0:15:00	10,713.97	2,678.49	3,960.91	990.23	0.00	0.00
305	11.01 16:00:00	0:12:36	11,978.77	2,515.54	2,696.11	566.18	0.00	0.00
305	11.01 16:10:12	0:05:24	13,443.58	1,209.92	1,231.30	110.82	0.00	0.00



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
312	11.08 07:43:48	0:00:36	12,186.71	121.87	874.47	8.75	1,613.70	16.14
312	11.08 07:45:00	0:07:48	11,961.40	1,554.98	919.13	119.49	1,794.35	233.27
312	11.08 08:00:00	0:15:00	9,005.23	2,251.31	1,377.46	344.37	4,292.19	1,073.05
312	11.08 08:15:00	0:15:00	6,002.41	1,500.60	2,038.52	509.63	6,633.94	1,658.49
312	11.08 08:30:00	0:15:00	4,112.78	1,028.19	2,017.18	504.30	8,544.92	2,136.23
312	11.08 08:45:00	0:15:00	2,847.23	711.81	2,018.17	504.54	9,809.47	2,452.37
312	11.08 09:00:00	0:15:00	2,228.35	557.09	2,009.49	502.37	10,437.03	2,609.26
312	11.08 09:15:00	0:15:00	2,106.02	526.50	2,014.70	503.68	10,554.16	2,638.54
312	11.08 09:30:00	0:15:00	2,080.96	520.24	2,009.74	502.43	10,584.19	2,646.05
312	11.08 09:45:00	0:15:00	2,064.08	516.02	2,022.89	505.72	10,587.91	2,646.98
312	11.08 10:00:00	0:15:00	2,046.22	511.55	2,021.90	505.47	10,606.77	2,651.69
312	11.08 10:15:00	0:15:00	2,036.79	509.20	2,038.03	509.51	10,600.07	2,650.02
312	11.08 10:30:00	0:15:00	1,993.11	498.28	2,053.41	513.35	10,628.36	2,657.09
312	11.08 10:45:00	0:15:00	1,956.14	489.03	2,081.20	520.30	10,637.54	2,659.38
312	11.08 11:00:00	0:15:00	1,921.40	480.35	2,094.60	523.65	10,658.88	2,664.72
312	11.08 11:15:00	0:15:00	1,901.05	475.26	2,123.64	530.91	10,650.19	2,662.55
312	11.08 11:30:00	0:15:00	1,876.23	469.06	2,139.77	534.94	10,658.88	2,664.72
312	11.08 11:45:00	0:15:00	1,864.08	466.02	2,191.88	547.97	10,618.93	2,654.73
312	11.08 12:00:00	0:15:00	1,914.20	478.55	2,230.84	557.71	10,529.84	2,632.46
312	11.08 12:15:00	0:15:00	2,020.66	505.16	2,221.65	555.41	10,432.57	2,608.14
312	11.08 12:30:00	0:15:00	2,273.27	568.32	2,176.24	544.06	10,225.37	2,556.34
312	11.08 12:45:00	0:15:00	2,609.26	652.32	2,149.94	537.49	9,915.68	2,478.92
312	11.08 13:00:00	0:15:00	2,962.87	740.72	2,122.15	530.54	9,589.86	2,397.47
312	11.08 13:15:00	0:15:00	3,330.87	832.72	2,182.45	545.61	9,161.56	2,290.39
312	11.08 13:30:00	0:15:00	3,706.31	926.58	2,346.22	586.56	8,622.34	2,155.59
312	11.08 13:45:00	0:15:00	4,110.79	1,027.70	2,582.21	645.55	7,981.87	1,995.47
312	11.08 14:00:00	0:15:00	4,534.38	1,133.59	2,917.46	729.36	7,223.04	1,805.76
312	11.08 14:15:00	0:15:00	4,997.67	1,249.42	3,408.29	852.07	6,268.92	1,567.23
312	11.08 14:30:00	0:15:00	5,508.85	1,377.21	4,055.70	1,013.93	5,110.33	1,277.58
312	11.08 14:45:00	0:15:00	6,188.27	1,547.07	5,224.72	1,306.18	3,261.88	815.47
312	11.08 15:00:00	0:15:00	7,149.34	1,787.34	6,624.76	1,656.19	900.77	225.19
312	11.08 15:15:00	0:15:00	8,441.19	2,110.30	6,170.41	1,542.60	63.28	15.82
312	11.08 15:30:00	0:15:00	9,789.62	2,447.41	4,885.26	1,221.31	0.00	0.00
312	11.08 15:45:00	0:15:00	10,851.69	2,712.92	3,823.19	955.80	0.00	0.00
312	11.08 16:00:00	0:09:00	12,633.87	1,895.08	2,041.00	306.15	0.00	0.00
312	11.08 16:03:00	0:01:48	13,170.37	395.11	1,504.51	45.14	0.00	0.00
319	11.15 07:51:00	0:04:48	12,537.84	1,003.03	816.15	65.29	1,320.88	105.67
319	11.15 08:00:00	0:12:00	10,828.86	2,165.77	783.15	156.63	3,062.87	612.57
319	11.15 08:15:00	0:15:00	7,638.69	1,909.67	1,535.53	383.88	5,500.66	1,375.17
319	11.15 08:30:00	0:15:00	4,731.90	1,182.98	2,210.24	552.56	7,732.74	1,933.18
319	11.15 08:45:00	0:15:00	3,266.35	816.59	2,187.41	546.85	9,221.12	2,305.28
319	11.15 09:00:00	0:15:00	2,410.00	602.50	2,177.48	544.37	10,087.40	2,521.85
319	11.15 09:15:00	0:15:00	2,177.48	544.37	2,162.84	540.71	10,334.55	2,583.64
319	11.15 09:30:00	0:15:00	2,147.21	536.80	2,148.70	537.18	10,378.97	2,594.74
319	11.15 09:45:00	0:15:00	2,127.61	531.90	2,167.31	541.83	10,379.96	2,594.99
319	11.15 10:00:00	0:15:00	2,106.27	526.57	2,158.38	539.59	10,410.23	2,602.56
319	11.15 10:15:00	0:15:00	2,093.11	523.28	2,169.79	542.45	10,411.97	2,602.99
319	11.15 10:30:00	0:15:00	2,050.68	512.67	2,176.24	544.06	10,447.95	2,611.99
319	11.15 10:45:00	0:15:00	2,012.72	503.18	2,207.51	551.88	10,454.65	2,613.66
319	11.15 11:00:00	0:15:00	1,975.74	493.94	2,224.14	556.03	10,475.00	2,618.75
319	11.15 11:15:00	0:15:00	1,952.66	488.17	2,255.15	563.79	10,467.06	2,616.77
319	11.15 11:30:00	0:15:00	1,929.09	482.27	2,272.77	568.19	10,473.02	2,618.25
319	11.15 11:45:00	0:15:00	1,915.44	478.86	2,329.60	582.40	10,429.84	2,607.46
319	11.15 12:00:00	0:15:00	1,963.58	490.90	2,376.75	594.19	10,334.55	2,583.64
319	11.15 12:15:00	0:15:00	2,077.98	519.49	2,359.38	589.84	10,237.52	2,559.38
319	11.15 12:30:00	0:15:00	2,328.11	582.03	2,311.48	577.87	10,035.29	2,508.82
319	11.15 12:45:00	0:15:00	2,663.35	665.84	2,281.71	570.43	9,729.82	2,432.45



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
319	11.15 13:00:00	0:15:00	3,016.72	754.18	2,257.88	564.47	9,400.28	2,350.07
319	11.15 13:15:00	0:15:00	3,388.44	847.11	2,360.12	590.03	8,926.32	2,231.58
319	11.15 13:30:00	0:15:00	3,768.10	942.03	2,547.47	636.87	8,359.31	2,089.83
319	11.15 13:45:00	0:15:00	4,169.35	1,042.34	2,830.11	707.53	7,675.41	1,918.85
319	11.15 14:00:00	0:15:00	4,590.71	1,147.68	3,221.93	805.48	6,862.24	1,715.56
319	11.15 14:15:00	0:15:00	5,043.82	1,260.96	3,789.69	947.42	5,841.36	1,460.34
319	11.15 14:30:00	0:15:00	5,565.18	1,391.29	4,754.73	1,188.68	4,354.97	1,088.74
319	11.15 14:45:00	0:15:00	6,290.26	1,572.57	6,212.84	1,553.21	2,171.78	542.94
319	11.15 15:00:00	0:15:00	7,337.19	1,834.30	7,337.69	1,834.42	0.00	0.00
319	11.15 15:15:00	0:15:00	8,613.66	2,153.41	6,061.22	1,515.31	0.00	0.00
319	11.15 15:30:00	0:15:00	9,791.85	2,447.96	4,883.02	1,220.76	0.00	0.00
319	11.15 15:45:00	0:13:48	11,083.46	2,549.20	3,591.42	826.03	0.00	0.00
319	11.15 15:57:36	0:06:36	12,979.54	1,427.75	1,695.34	186.49	0.00	0.00
326	11.22 07:57:36	0:01:12	13,460.95	269.22	185.61	3.71	1,028.32	20.57
326	11.22 08:00:00	0:09:00	13,123.71	1,968.56	51.37	7.71	1,499.80	224.97
326	11.22 08:15:00	0:15:00	9,656.61	2,414.15	766.77	191.69	4,251.49	1,062.87
326	11.22 08:30:00	0:15:00	5,958.74	1,489.68	2,003.53	500.88	6,712.61	1,678.15
326	11.22 08:45:00	0:15:00	3,720.71	930.18	2,362.85	590.71	8,591.32	2,147.83
326	11.22 09:00:00	0:15:00	2,666.58	666.65	2,376.50	594.12	9,631.80	2,407.95
326	11.22 09:15:00	0:15:00	2,254.16	563.54	2,390.64	597.66	10,030.07	2,507.52
326	11.22 09:30:00	0:15:00	2,215.45	553.86	2,285.43	571.36	10,174.00	2,543.50
326	11.22 09:45:00	0:15:00	2,189.15	547.29	2,326.62	581.66	10,159.11	2,539.78
326	11.22 10:00:00	0:15:00	2,161.85	540.46	2,339.52	584.88	10,173.50	2,543.38
326	11.22 10:15:00	0:15:00	2,147.46	536.87	2,347.71	586.93	10,179.71	2,544.93
326	11.22 10:30:00	0:15:00	2,108.75	527.19	2,316.94	579.24	10,249.19	2,562.30
326	11.22 10:45:00	0:15:00	2,066.31	516.58	2,327.61	581.90	10,280.95	2,570.24
326	11.22 11:00:00	0:15:00	2,026.12	506.53	2,343.49	585.87	10,305.27	2,576.32
326	11.22 11:15:00	0:15:00	2,001.30	500.33	2,376.00	594.00	10,297.58	2,574.39
326	11.22 11:30:00	0:15:00	1,977.73	494.43	2,394.61	598.65	10,302.54	2,575.64
326	11.22 11:45:00	0:15:00	1,964.08	491.02	2,446.23	611.56	10,264.57	2,566.14
326	11.22 12:00:00	0:15:00	2,007.75	501.94	2,513.47	628.37	10,153.65	2,538.41
326	11.22 12:15:00	0:15:00	2,118.67	529.67	2,490.65	622.66	10,065.56	2,516.39
326	11.22 12:30:00	0:15:00	2,360.62	590.15	2,434.81	608.70	9,879.45	2,469.86
326	11.22 12:45:00	0:15:00	2,693.88	673.47	2,406.28	601.57	9,574.73	2,393.68
326	11.22 13:00:00	0:15:00	3,044.51	761.13	2,381.46	595.37	9,248.91	2,312.23
326	11.22 13:15:00	0:15:00	3,418.22	854.55	2,512.23	628.06	8,744.43	2,186.11
326	11.22 13:30:00	0:15:00	3,795.15	948.79	2,720.43	680.11	8,159.30	2,039.83
326	11.22 13:45:00	0:15:00	4,190.20	1,047.55	3,057.91	764.48	7,426.77	1,856.69
326	11.22 14:00:00	0:15:00	4,606.09	1,151.52	3,578.02	894.51	6,490.76	1,622.69
326	11.22 14:15:00	0:15:00	5,050.27	1,262.57	4,337.10	1,084.28	5,287.50	1,321.88
326	11.22 14:30:00	0:15:00	5,577.34	1,394.33	5,482.30	1,370.57	3,615.24	903.81
326	11.22 14:45:00	0:15:00	6,341.38	1,585.35	6,954.30	1,738.58	1,379.20	344.80
326	11.22 15:00:00	0:15:00	7,388.81	1,847.20	7,286.07	1,821.52	0.00	0.00
326	11.22 15:15:00	0:15:00	8,629.04	2,157.26	6,045.84	1,511.46	0.00	0.00
326	11.22 15:30:00	0:15:00	9,789.37	2,447.34	4,885.51	1,221.38	0.00	0.00
326	11.22 15:45:00	0:12:00	11,304.31	2,260.86	3,370.57	674.11	0.00	0.00
326	11.22 15:54:00	0:04:48	13,153.49	1,052.28	1,521.39	121.71	0.00	0.00
333	11.29 08:04:12	0:05:24	14,133.42	1,272.01	0.00	0.00	541.46	48.73
333	11.29 08:15:00	0:12:36	11,497.12	2,414.39	225.81	47.42	2,951.95	619.91
333	11.29 08:30:00	0:15:00	7,998.50	1,999.63	1,124.10	281.03	5,552.27	1,388.07
333	11.29 08:45:00	0:15:00	4,565.64	1,141.41	2,301.81	575.45	7,807.43	1,951.86
333	11.29 09:00:00	0:15:00	3,003.56	750.89	2,523.15	630.79	9,148.16	2,287.04
333	11.29 09:15:00	0:15:00	2,390.89	597.72	2,642.51	660.63	9,641.48	2,410.37
333	11.29 09:30:00	0:15:00	2,270.54	567.64	2,561.12	640.28	9,843.22	2,460.81
333	11.29 09:45:00	0:15:00	2,245.23	561.31	2,482.70	620.68	9,946.95	2,486.74
333	11.29 10:00:00	0:15:00	2,213.47	553.37	2,503.55	625.89	9,957.86	2,489.47
333	11.29 10:15:00	0:15:00	2,196.84	549.21	2,541.02	635.26	9,937.02	2,484.26



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
333	11.29 10:30:00	0:15:00	2,163.59	540.90	2,528.12	632.03	9,983.17	2,495.79
333	11.29 10:45:00	0:15:00	2,117.93	529.48	2,543.50	635.88	10,013.45	2,503.36
333	11.29 11:00:00	0:15:00	2,072.77	518.19	2,510.50	627.62	10,091.61	2,522.90
333	11.29 11:15:00	0:15:00	2,043.73	510.93	2,518.44	629.61	10,112.71	2,528.18
333	11.29 11:30:00	0:15:00	2,019.42	504.85	2,497.59	624.40	10,157.87	2,539.47
333	11.29 11:45:00	0:15:00	2,005.02	501.26	2,535.81	633.95	10,134.05	2,533.51
333	11.29 12:00:00	0:15:00	2,029.84	507.46	2,651.20	662.80	9,993.85	2,498.46
333	11.29 12:15:00	0:15:00	2,133.07	533.27	2,615.21	653.80	9,926.60	2,481.65
333	11.29 12:30:00	0:15:00	2,372.03	593.01	2,551.94	637.98	9,750.91	2,437.73
333	11.29 12:45:00	0:15:00	2,696.36	674.09	2,518.19	629.55	9,460.33	2,365.08
333	11.29 13:00:00	0:15:00	3,048.97	762.24	2,490.65	622.66	9,135.26	2,283.82
333	11.29 13:15:00	0:15:00	3,419.21	854.80	2,682.46	670.62	8,573.21	2,143.30
333	11.29 13:30:00	0:15:00	3,794.90	948.73	2,969.57	742.39	7,910.41	1,977.60
333	11.29 13:45:00	0:15:00	4,183.00	1,045.75	3,430.38	857.59	7,061.50	1,765.38
333	11.29 14:00:00	0:15:00	4,591.70	1,147.93	3,977.29	994.32	6,105.89	1,526.47
333	11.29 14:15:00	0:15:00	5,023.47	1,255.87	4,774.58	1,193.65	4,876.82	1,219.21
333	11.29 14:30:00	0:15:00	5,542.10	1,385.53	5,987.52	1,496.88	3,145.26	786.31
333	11.29 14:45:00	0:15:00	6,322.52	1,580.63	7,332.72	1,833.18	1,019.63	254.91
333	11.29 15:00:00	0:15:00	7,366.97	1,841.74	7,307.91	1,826.98	0.00	0.00
333	11.29 15:15:00	0:15:00	8,515.14	2,128.79	6,159.74	1,539.93	0.00	0.00
333	11.29 15:30:00	0:15:00	9,715.43	2,428.86	4,959.45	1,239.86	0.00	0.00
333	11.29 15:45:00	0:10:48	11,618.46	2,091.32	3,056.42	550.16	0.00	0.00
333	11.29 15:51:36	0:03:00	13,407.59	670.38	1,267.28	63.36	0.00	0.00
340	12.06 08:10:12	0:02:24	14,458.25	578.33	0.00	0.00	216.63	8.67
340	12.06 08:15:00	0:10:12	13,525.46	2,299.33	0.00	0.00	1,149.41	195.40
340	12.06 08:30:00	0:15:00	9,565.05	2,391.26	717.64	179.41	4,392.19	1,098.05
340	12.06 08:45:00	0:15:00	6,366.94	1,591.74	1,458.85	364.71	6,849.09	1,712.27
340	12.06 09:00:00	0:15:00	3,354.94	838.74	2,629.86	657.46	8,690.08	2,172.52
340	12.06 09:15:00	0:15:00	2,540.52	635.13	2,792.39	698.10	9,341.96	2,335.49
340	12.06 09:30:00	0:15:00	2,320.66	580.17	2,818.94	704.74	9,535.27	2,383.82
340	12.06 09:45:00	0:15:00	2,290.14	572.54	2,790.16	697.54	9,594.58	2,398.64
340	12.06 10:00:00	0:15:00	2,256.15	564.04	2,651.94	662.99	9,766.79	2,441.70
340	12.06 10:15:00	0:15:00	2,234.81	558.70	2,684.70	671.17	9,755.38	2,438.84
340	12.06 10:30:00	0:15:00	2,209.25	552.31	2,684.70	671.17	9,780.94	2,445.23
340	12.06 10:45:00	0:15:00	2,160.61	540.15	2,725.14	681.29	9,789.12	2,447.28
340	12.06 11:00:00	0:15:00	2,111.48	527.87	2,707.77	676.94	9,855.63	2,463.91
340	12.06 11:15:00	0:15:00	2,080.96	520.24	2,737.30	684.33	9,856.62	2,464.16
340	12.06 11:30:00	0:15:00	2,054.16	513.54	2,709.51	677.38	9,911.21	2,477.80
340	12.06 11:45:00	0:15:00	2,038.03	509.51	2,744.00	686.00	9,892.85	2,473.21
340	12.06 12:00:00	0:15:00	2,064.08	516.02	2,827.63	706.91	9,783.17	2,445.79
340	12.06 12:15:00	0:15:00	2,159.87	539.97	2,794.62	698.66	9,720.39	2,430.10
340	12.06 12:30:00	0:15:00	2,362.85	590.71	2,720.92	680.23	9,591.10	2,397.78
340	12.06 12:45:00	0:15:00	2,672.78	668.20	2,719.19	679.80	9,282.91	2,320.73
340	12.06 13:00:00	0:15:00	3,025.15	756.29	2,703.55	675.89	8,946.17	2,236.54
340	12.06 13:15:00	0:15:00	3,392.16	848.04	2,904.30	726.08	8,378.41	2,094.60
340	12.06 13:30:00	0:15:00	3,764.13	941.03	3,200.10	800.02	7,710.65	1,927.66
340	12.06 13:45:00	0:15:00	4,150.99	1,037.75	3,676.29	919.07	6,847.60	1,711.90
340	12.06 14:00:00	0:15:00	4,551.75	1,137.94	4,237.84	1,059.46	5,885.29	1,471.32
340	12.06 14:15:00	0:15:00	4,972.85	1,243.21	5,042.09	1,260.52	4,659.94	1,164.99
340	12.06 14:30:00	0:15:00	5,468.40	1,367.10	6,228.97	1,557.24	2,977.51	744.38
340	12.06 14:45:00	0:15:00	6,242.87	1,560.72	7,519.83	1,879.96	912.19	228.05
340	12.06 15:00:00	0:15:00	7,254.81	1,813.70	7,420.07	1,855.02	0.00	0.00
340	12.06 15:15:00	0:15:00	8,340.20	2,085.05	6,334.68	1,583.67	0.00	0.00
340	12.06 15:30:00	0:15:00	9,579.69	2,394.92	5,095.19	1,273.80	0.00	0.00
340	12.06 15:45:00	0:10:12	11,816.98	2,008.89	2,857.90	485.84	0.00	0.00
340	12.06 15:51:00	0:03:00	13,564.67	678.23	1,110.21	55.51	0.00	0.00
347	12.13 08:15:36	0:07:12	14,602.17	1,752.26	0.00	0.00	72.71	8.73



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
347	12.13 08:30:00	0:15:00	11,069.56	2,767.39	291.32	72.83	3,313.99	828.50
347	12.13 08:45:00	0:15:00	7,677.15	1,919.29	1,059.59	264.90	5,938.14	1,484.54
347	12.13 09:00:00	0:15:00	4,430.40	1,107.60	2,128.10	532.03	8,116.37	2,029.09
347	12.13 09:15:00	0:15:00	2,748.72	687.18	2,848.72	712.18	9,077.44	2,269.36
347	12.13 09:30:00	0:15:00	2,359.87	589.97	2,957.90	739.48	9,357.10	2,339.28
347	12.13 09:45:00	0:15:00	2,325.38	581.35	2,974.28	743.57	9,375.22	2,343.80
347	12.13 10:00:00	0:15:00	2,289.89	572.47	2,880.48	720.12	9,504.50	2,376.13
347	12.13 10:15:00	0:15:00	2,264.83	566.21	2,799.59	699.90	9,610.46	2,402.62
347	12.13 10:30:00	0:15:00	2,235.55	558.89	2,783.95	695.99	9,655.37	2,413.84
347	12.13 10:45:00	0:15:00	2,194.36	548.59	2,837.06	709.26	9,643.46	2,410.87
347	12.13 11:00:00	0:15:00	2,141.75	535.44	2,836.81	709.20	9,696.32	2,424.08
347	12.13 11:15:00	0:15:00	2,108.25	527.06	2,877.26	719.31	9,689.37	2,422.34
347	12.13 11:30:00	0:15:00	2,077.73	519.43	2,858.40	714.60	9,738.75	2,434.69
347	12.13 11:45:00	0:15:00	2,062.84	515.71	2,902.82	725.70	9,709.22	2,427.31
347	12.13 12:00:00	0:15:00	2,065.07	516.27	3,005.55	751.39	9,604.26	2,401.06
347	12.13 12:15:00	0:15:00	2,156.89	539.22	2,983.71	745.93	9,534.28	2,383.57
347	12.13 12:30:00	0:15:00	2,328.85	582.21	2,889.42	722.35	9,456.61	2,364.15
347	12.13 12:45:00	0:15:00	2,629.11	657.28	2,878.99	719.75	9,166.77	2,291.69
347	12.13 13:00:00	0:15:00	2,973.79	743.45	2,847.98	711.99	8,853.12	2,213.28
347	12.13 13:15:00	0:15:00	3,342.53	835.63	3,012.25	753.06	8,320.10	2,080.02
347	12.13 13:30:00	0:15:00	3,708.80	927.20	3,313.75	828.44	7,652.34	1,913.08
347	12.13 13:45:00	0:15:00	4,089.45	1,022.36	3,787.21	946.80	6,798.22	1,699.55
347	12.13 14:00:00	0:15:00	4,481.52	1,120.38	4,322.46	1,080.62	5,870.89	1,467.72
347	12.13 14:15:00	0:15:00	4,901.39	1,225.35	5,117.52	1,279.38	4,655.97	1,163.99
347	12.13 14:30:00	0:15:00	5,370.13	1,342.53	6,263.46	1,565.87	3,041.28	760.32
347	12.13 14:45:00	0:15:00	6,100.18	1,525.05	7,532.98	1,883.24	1,041.72	260.43
347	12.13 15:00:00	0:15:00	7,071.43	1,767.86	7,603.45	1,900.86	0.00	0.00
347	12.13 15:15:00	0:15:00	8,129.77	2,032.44	6,545.11	1,636.28	0.00	0.00
347	12.13 15:30:00	0:15:00	9,356.36	2,339.09	5,318.52	1,329.63	0.00	0.00
347	12.13 15:45:00	0:10:48	11,493.39	2,068.81	3,181.48	572.67	0.00	0.00
347	12.13 15:52:11	0:03:36	13,702.89	822.17	971.99	58.32	0.00	0.00
354	12.20 08:19:48	0:04:48	14,620.53	1,169.64	0.00	0.00	54.34	4.35
354	12.20 08:30:00	0:12:36	12,341.56	2,591.73	15.14	3.18	2,318.18	486.82
354	12.20 08:45:00	0:15:00	8,635.74	2,158.94	834.27	208.57	5,204.87	1,301.22
354	12.20 09:00:00	0:15:00	5,331.67	1,332.92	1,764.32	441.08	7,578.89	1,894.72
354	12.20 09:15:00	0:15:00	2,967.83	741.96	2,834.58	708.64	8,872.47	2,218.12
354	12.20 09:30:00	0:15:00	2,418.19	604.55	2,994.38	748.60	9,262.31	2,315.58
354	12.20 09:45:00	0:15:00	2,341.51	585.38	3,039.05	759.76	9,294.32	2,323.58
354	12.20 10:00:00	0:15:00	2,307.51	576.88	2,980.49	745.12	9,386.88	2,346.72
354	12.20 10:15:00	0:15:00	2,280.47	570.12	2,908.52	727.13	9,485.89	2,371.47
354	12.20 10:30:00	0:15:00	2,249.94	562.49	2,817.45	704.36	9,607.48	2,401.87
354	12.20 10:45:00	0:15:00	2,215.20	553.80	2,872.54	718.14	9,587.13	2,396.78
354	12.20 11:00:00	0:15:00	2,161.60	540.40	2,885.20	721.30	9,628.08	2,407.02
354	12.20 11:15:00	0:15:00	2,122.40	530.60	2,926.64	731.66	9,625.84	2,406.46
354	12.20 11:30:00	0:15:00	2,091.63	522.91	2,913.98	728.50	9,669.27	2,417.32
354	12.20 11:45:00	0:15:00	2,074.01	518.50	2,958.90	739.72	9,641.97	2,410.49
354	12.20 12:00:00	0:15:00	2,059.12	514.78	3,037.81	759.45	9,577.95	2,394.49
354	12.20 12:15:00	0:15:00	2,141.26	535.31	3,064.11	766.03	9,469.51	2,367.38
354	12.20 12:30:00	0:15:00	2,287.17	571.79	2,968.08	742.02	9,419.63	2,354.91
354	12.20 12:45:00	0:15:00	2,565.09	641.27	2,945.99	736.50	9,163.80	2,290.95
354	12.20 13:00:00	0:15:00	2,904.30	726.08	2,905.05	726.26	8,865.52	2,216.38
354	12.20 13:15:00	0:15:00	3,269.58	817.39	3,023.66	755.92	8,381.64	2,095.41
354	12.20 13:30:00	0:15:00	3,634.60	908.65	3,307.54	826.89	7,732.74	1,933.18
354	12.20 13:45:00	0:15:00	4,011.53	1,002.88	3,758.92	939.73	6,904.42	1,726.11
354	12.20 14:00:00	0:15:00	4,401.62	1,100.41	4,286.48	1,071.62	5,986.78	1,496.70
354	12.20 14:15:00	0:15:00	4,814.78	1,203.70	5,017.52	1,254.38	4,842.58	1,210.64
354	12.20 14:30:00	0:15:00	5,258.22	1,314.56	6,079.59	1,519.90	3,337.07	834.27



Quantitative Shadow Results - FULL SUN ANGLE SAMPLE

1979 Mission Street ALTERNATIVE F (Reduced Capp Component, 70' Setback)

DayNum	Date+Time	Duration	ExSF	ExSFHr	NewSF	NewSFHr	SunnySF	SunnySFHr
354	12.20 14:45:00	0:15:00	5,923.50	1,480.88	7,401.71	1,850.43	1,349.67	337.42
354	12.20 15:00:00	0:15:00	6,863.48	1,715.87	7,811.40	1,952.85	0.00	0.00
354	12.20 15:15:00	0:15:00	7,886.34	1,971.59	6,788.54	1,697.14	0.00	0.00
354	12.20 15:30:00	0:15:00	9,083.40	2,270.85	5,591.48	1,397.87	0.00	0.00
354	12.20 15:45:00	0:12:36	10,865.09	2,281.67	3,809.79	800.06	0.00	0.00
354	12.20 15:54:36	0:04:48	13,687.75	1,095.02	987.13	78.97	0.00	0.00
			5,096,523.81	1,132,313.36	1,448,655.86	356,578.08	10,270,364.14	2,555,944.87