



SAN FRANCISCO PLANNING DEPARTMENT

Discretionary Review Full Analysis

HEARING DATE JANUARY 12, 2017

Date: January 5, 2017
Case No.: 2013.1458DRP-02
Project Address: 198 VALENCIA STREET
Permit Application: 2014.08.05.3094
Zoning: NCT-3 (Moderate Scale Neighborhood Commercial Transit District)
50-X Height and Bulk District
Block/Lot: 3502/108
Project Sponsor: Victor Quan, Valencia Duboce LLC
PO Box 591841
San Francisco, CA 94159
Staff Contact: Jonathan DiSalvo – (415) 575-9182
Jonathan.DiSalvo@sfgov.org
Recommendation: **Do not take DR and approve the Project as proposed.**

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Information:
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PROJECT DESCRIPTION

The proposed project would demolish the existing one-story, 1,877 square foot automotive service station (dba Oil Changer) and construct a new five-story, 55 foot tall, 33,795 gross square foot mixed-use building that includes two retail spaces totaling 6,269 square feet at the ground story, 28 dwelling units on the second through fifth stories, 19 below-grade off-street parking spaces, 29 Class I bicycle parking spaces, and four Class II bicycle parking spaces. The Project includes a dwelling unit mix consisting of twelve (12) two-bedroom units, and sixteen (16) one-bedroom units. Open space for building residents would be provided in private terraces connected to individual dwellings and a common roof deck. The proposed building would include an approximately 16-foot tall elevator penthouse above roof. The Project would remove the two existing curb cuts on Valencia Street and would relocate the existing curb cut on Duboce Avenue.

SITE DESCRIPTION AND PRESENT USE

The property at 198 Valencia Street is located on the corner of Duboce Avenue and Valencia Street. The project site has 100 feet of frontage along Valencia Street and 90 feet of frontage along Duboce Avenue, and is currently occupied by a one-story, 1,877 square foot oil change facility (dba Oil Changer) and a surface parking lot with seven off-street parking spaces. The lot slopes up from Valencia Street along Duboce Avenue. The parcel totals 9,000 square feet in size (approximately 0.21 acres) and is located in a NCT-3 (Moderate Scale Neighborhood Commercial Transit) Zoning District and a 50-X Height and Bulk District, within the Market and Octavia Plan Area.

SURROUNDING PROPERTIES AND NEIGHBORHOOD

The project site is located at the northern edge of the Mission neighborhood, adjacent to the South of Market and Western Addition neighborhoods, and the project area is characterized by residential uses and neighborhood commercial uses, including restaurants, bars, cafes, and a variety of retail establishments. The project site is bordered by commercial uses to the north on Valencia Street, mixed-use commercial and residential uses to the south on Valencia Street and to the east on Duboce Avenue and residential uses to the west on Duboce Avenue. Properties surrounding the project site are within NCT-3 (Moderate Scale Neighborhood Commercial Transit), RTO (Residential Transit Oriented), UMU (Urban Mixed Use), and PDR-1-G (Production, Distribution, & Repair – 1- General) Zoning Districts and a mixture of 40-X, 50-X, and 85-X Height and Bulk Districts. Building heights are generally one to four-stories, with a mix of architectural styles and both raised, and at-grade, entrances. The project site is also one block from the San Francisco Friends School, which is a kindergarten through 8th grade school. The closest Bay Area Rapid Transit District (BART) stop is at Mission and 16th Streets, approximately 0.5 mile south of the site; and is within a quarter mile of several local transit lines, including Muni Metro lines J, K, L, M, N, and T; streetcar line F, as well as Muni bus lines N Owl, 6, 14, 14L, 16X, 22, 33, 49, 71, and 71L.

BUILDING PERMIT APPLICATION NOTIFICATION

TYPE	REQUIRED PERIOD	NOTIFICATION DATES	DR FILE DATE	DR HEARING DATE	FILING TO HEARING TIME
312 Notice	30 days	July 26, 2016 – August 24, 2016	August 18, 2016, August 19, 2016	January 12, 2017	145 & 146 days

HEARING NOTIFICATION

TYPE	REQUIRED PERIOD	REQUIRED NOTICE DATE	ACTUAL NOTICE DATE	ACTUAL PERIOD
Posted Notice	10 days	January 2, 2017	January 2, 2017	10 days
Mailed Notice	10 days	January 2, 2017	January 2, 2017	10 days

PUBLIC COMMENT

	SUPPORT	OPPOSED	NO POSITION
Adjacent neighbor(s)	0	1	0
Other neighbors on the block or directly across the street	0	1	0
Neighborhood groups	0	0	0

The Project has completed the Section 312 notification. During the Section 312 notification period, two Discretionary Reviews were filed; the first on August 18th and the second on August 19th. A Discretionary Hearing date was scheduled for January 12th, 2017.

DR REQUESTOR (1 OF 2)

The first DR Requestor is Laura Burmeister, Vice President of R.B.C.C., Inc., 199 Valencia Street, owner of the bar, restaurant, and beer garden doing business as (dba) Zeitgeist across the street and to the east of the Project.

DR REQUESTOR'S CONCERNS AND PROPOSED ALTERNATIVES

Issue #1: The DR Requestor is concerned the massing and height of the proposed building will impact light to their property across the street to the east, and is especially concerned that the proposed building will reduce sunlight to the outdoor beer garden, and will thus reduce sales and the customer base of Zeitgeist, which is a Legacy Business. The DR Requestor recommends the Project be revised to a building that does not exceed three stories in height.

Issue #2: The DR Requestor is concerned the massing and height of the proposed building will impact light to the SOMA West Dog Park and Skateboard Park.

Issue #3: Due to increased shading of its beer garden and an expected reduction in income generated, the DR Requestor is concerned that the Project would reduce employment at Zeitgeist, potentially causing closure of the business, and would thus not preserve a culturally-important, and neighborhood-serving, business. The DR Requestor recommends the Project be revised to a building that does not exceed three stories in height.

Issue #4: The DR Requestor is concerned that the noise to be generated from the construction of the building will impact their customers' experience in the beer garden causing a reduction in sales due to the construction activity.

Issue #5: The DR Requestor is concerned that the privacy of patrons of the Zeitgeist beer garden will be compromised due to uninvited viewing of the beer garden by future residents of the building from the vantage point of the Project's proposed roof deck. The DR Requestor recommends the Project be revised to a building that does not exceed three stories in height and to set back the proposed roof deck.

Reference the *Discretionary Review Application* for additional information. The *Discretionary Review Application* is an attached document.

DR REQUESTOR (2 OF 2)

The second DR Requestor is Richard Krooth, 118-120 Duboce Avenue, owner, of the adjacent property to the west of the Project.

DR REQUESTOR'S CONCERNS AND PROPOSED ALTERNATIVES

Issue #1: The DR Requestor is concerned the massing, setbacks, and height of the proposed building are not consistent with the size or character of buildings in the neighborhood. The DR Requestor recommends the Project be denied approval.

Issue #2: The DR Requestor is concerned the massing and height of the proposed building will violate the Residential Design Guidelines and CEQA requirements for access to light and air to the DR Requestors' property as well as other adjacent properties.

Issue #3: The DR Requestor is concerned the design of the proposed building is not consistent with the character of the neighborhood and block-face both aesthetically, and in regard to scale.

Issue #4: The DR Requestor is concerned the proposed vehicle and bicycle parking spaces to be provided by the Project will lead to increased traffic congestion, and dangerous conditions for accidents and to the tenants of 118 Duboce Avenue (the DR Requestor's property).

Issue #5: The DR Requestor is concerned that if the proposed project were to cause damages to the DR Requestor's property, or unwanted construction impacts to the tenants of 118 Duboce Avenue, the Project Sponsor would not provide reimbursement to the DR Requestor for damages.

Proposed Alternatives and Requirements: For the issues listed above, if the Project is not denied approval, the DR Requestor recommends the following modifications and requirements:

- (1) Limit the proposed building height to two stories while also requiring oxygenated air quality of 17% to 20% of air molecules;
- (2) Secure the DR Requestor's right to access full sunlight without shadows resulting from the proposed building during all seasonal variations;
- (3) Enforce the use of netting and other protective measures to limit construction gasses and particulate matter during demolition and building operations;
- (4) Limit the blocking of any windows or any development that would impact the DR Requestor's building; and,
- (5) Provide 25-foot setbacks from the property lines fronting both Duboce Avenue and Valencia Street, as well as a 40-foot setback of the proposed building from the DR Requestor's building at 118 Duboce Avenue.

Reference the *Discretionary Review Application* for additional information. The *Discretionary Review Application* is an attached document.

PROJECT SPONSOR'S RESPONSE

Please reference the *Response to Discretionary Review* for additional information. The *Response to Discretionary Review* is an attached document. In addition, in response to DR Requestor concerns, the project sponsor has revised the Project as discussed below. The plans attached to this report reflect the revised design.

PROJECT ANALYSIS

Department staff reviewed the DR Requestor's concerns with the proposed project and presents the following comments:

DR Requestor 1 of 2 – Issues # 1, 2, and 3 - Shadow Impacts: Planning Code Section 295 restricts new shadow, cast by structures exceeding a height of 40 feet, upon property under the jurisdiction of the Recreation and Park Commission. Based upon a detailed shadow analysis, the Project would not cast new shadow upon a property under the jurisdiction of the Recreation and Park Commission, and thus the proposed Project complies with Planning Code Section 295. Additionally, as described in the Certificate of Determination contained in the Planning Department files for this Project (Case No. 2013.1458E), it was determined the Project would not result in significant project-specific or cumulative impacts related to shadow that were not identified in the Market and Octavia Programmatic Environmental Impact Report (PEIR). As the Project complies with both the Planning Code and has been determined to be exempt from the California Environmental Quality Act (“CEQA”) per Section 15183 of the CEQA Guidelines and California Public Resources Code Section 21083.3, the Department does not find that the Project results in circumstances that justify a modification to the Project as proposed due to shadow impacts.

DR Requestor 1 of 2 – Issue # 4 - Construction-Related Impacts: The Department does not regulate construction-related noise impacts. Noise related to building construction activities are regulated by Article 29 of the Police Code. Construction related noise complaints can be directed to the Department of Building Inspection, Inspection Services. Construction related complaints beyond the allowed hours should be directed to the local police station.

DR Requestor 1 of 2 – Issue # 5 - Privacy: The DR Requestor is concerned that the privacy of patrons of the Zeitgeist beer garden will be compromised due to uninvited viewing of the beer garden by future residents of the building from the vantage point of the proposed roof deck. The proposed roof deck has been setback five feet from the front façade of the building facing Valencia Street, thus limiting viewing from the roof deck to the beer garden at street level by users of the roof deck. Additionally, as designed, the roof deck partially fulfills Planning Code requirements to provide usable open space for the proposed twenty-eight residential units. Currently, the existing residential hotel at 94 Duboce (above Zeitgeist) has windows that face onto the beer garden.

DR Requestor 2 of 2 – Issues # 1, 2 - Building Height and Scale: The Department finds the building’s size and height to be compatible with the surrounding buildings and also the overall building scale found in the immediate neighborhood. While the neighborhood does contain a mix of buildings two to four stories, most buildings are three to four stories tall. The DR requestor is concerned that the Project would not be consistent with the size or character of buildings in the neighborhood. The Project is located in a NCT-3 Zoning District and a 50-X Height and Bulk District. The allowable building envelope is defined by the Planning Code by way of prescribed setbacks and the height limit. The DR Requestor is also concerned the massing and height of the proposed building will violate the Residential Design Guidelines and CEQA requirements for access to light and air to the DR Requestors’ property as well as other adjacent properties. The proposed Project is not located within a residential zoning district, and is not subject to the Residential Design Guidelines. The Planning Department’s Urban Design Advisory Team (UDAT) provides design review for projects not subject to the Residential Design Guidelines and determined the Project’s intended uses to be compatible with the neighborhood and consistent with the General Plans and design policies and guidelines of the Market and Octavia Area Plan. In its October 12th, 2016 meeting, the UDAT requested the proposed stair penthouses be minimized. The Project has since been revised and the roof penthouses have been reduced in size. In regard to CEQA requirements, on

June 1, 2016, the Project was determined to be exempt from the California Environmental Quality Act (“CEQA”) per Section 15183 of the CEQA Guidelines and California Public Resources Code Section 21083.3 as described in the Certificate of Determination contained in the Planning Department files for this Project (Case No. 2013.1458E).

DR Requestor 2 of 2 – Issue # 3 - Aesthetic Compatibility: The DR Requestor is concerned the design of the proposed building is not consistent with the character of the neighborhood and block-face both aesthetically, and in regard to scale. The Project complies with Planning Code requirements in regard to scale and the Department’s Urban Design Advisory Team has found the Project to be in compliance with the aesthetic qualities of the neighborhood, the General Plan and design policies and guidelines of the Market and Octavia Area Plan.

DR Requestor 2 of 2 – Issue # 4 - Traffic Impacts: The DR Requestor is concerned the proposed vehicle and bicycle parking spaces to be provided by the Project will lead to increased traffic congestion, and dangerous conditions for accidents and to the tenants of 118 Duboce Avenue (the DR Requestor’s property). The 28 Class I bicycle spaces provided in the garage and the four Class II bicycle parking spaces provided on Valencia Street and Duboce Avenue are provided to meet requirements for the proposed project per Section 155.2 of the Planning Code. The Project is also providing 19 off-street parking spaces, as permitted per Sections 731.22 and 731.94 of the Planning Code. Additionally, as described in the Certificate of Determination contained in the Planning Department files for this Project (Case No. 2013.1458E), it was determined the Project would not result in significant project-specific or cumulative impacts related to transportation impacts that were not identified in the Market and Octavia Programmatic Environmental Impact Report (PEIR). As the Project complies with both the Planning Code and has been determined to be exempt from the California Environmental Quality Act (“CEQA”) per Section 15183 of the CEQA Guidelines and California Public Resources Code Section 21083.3, the Department does not find that the Project results in circumstances that justify a modification to the Project as proposed due to transportation impacts.

DR Requestor 2 of 2 – Issue # 5 - Property Damages: The DR Requestor is concerned that if the Project were to cause damages to the DR Requestor’s property, or unwanted construction impacts to the tenants of 118 Duboce Avenue, the Project Sponsor would not provide reimbursement to the DR Requestor for damages. This is a civil matter and not in the Planning Department’s jurisdiction. Complaints related to construction activity can be directed to the Department of Building Inspection, Inspection Services.

ENVIRONMENTAL REVIEW

On June 1, 2016, the Project was determined to be exempt from the California Environmental Quality Act (“CEQA”) per Section 15183 of the CEQA Guidelines and California Public Resources Code Section 21083.3 as described in the Certificate of Determination contained in the Planning Department files for this Project (Case No. 2013.1458E).

RESIDENTIAL DESIGN TEAM REVIEW

The proposed Project is not located within a residential zoning district, and is not subject to the Residential Design Guidelines. Therefore, the proposed project was not reviewed by the Residential Design Team.

URBAN DESIGN ADVISORY TEAM REVIEW

An Urban Design Advisory Team (UDAT) meeting was held on October 12, 2016 in response to the Requests for Discretionary Review. The UDAT reviewed the DR Requestors' concerns, and analyzed the proposed plans to address those concerns. UDAT's comments are incorporated below:

Architecture. In an effort to reduce unnecessary height and rooftop clutter UDAT requests that the stair penthouses and elevator be reduced in height or eliminated except as necessary for roof access. UDAT requests that stair penthouses should be sculpted with sloped roofs that correspond to the slope of the roof to minimize the massing or replaced with a roof hatch to minimize their appearance. Any guardrails for the roof deck should be set back 5' from the building lines and made as transparent as possible.

Materials. Materials shall be of the highest quality and architecturally consistent with the adjacent neighborhood. UDAT requests that drawings or renderings be submitted to clearly illustrate the architectural details.

Under the Commission's pending DR Reform Legislation, this project would be referred to the Commission, as this project involves new construction.

BASIS FOR RECOMMENDATION

- The Project complies with the Planning Code and advances the policies of the General Plan.
- The Project is in an appropriate in-fill development that will add 28 new dwelling units to the City's housing stock and 6,269 square feet of commercial space in an area that encourages the development of moderate-scale buildings with a pattern of ground floor commercial and upper story residential units.
- The Project fully respects the character of the adjacent mixed use and residential neighborhoods.
- The Project will include at least four units of on-site, permanently affordable housing.
- There are no exceptional or extraordinary circumstances that would necessitate Discretionary Review or modification of the project.

RECOMMENDATION:	Do not take DR and approve the project as proposed.
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Attachments:

Environmental Determination
Shadow Analysis
Block Book Map
Sanborn Map
Zoning Map
Height and Bulk Map
Aerial Photograph
Context Photos

Section 312 Notice
DR Application #1 with Supplemental Letter
DR Application #2 with Supplemental Letter
Response to DR Application
Reduced Plans

JD: I:\Current Planning\SE Team\Jonathan DiSalvo\DR\198 Valencia\2013-1458DRP



SAN FRANCISCO PLANNING DEPARTMENT

Certificate of Determination EXEMPTION FROM ENVIRONMENTAL REVIEW

Case No.: 2013.1458E
Project Address: 198 Valencia Street
Zoning: NCT-3 (Moderate Scale Neighborhood Commercial Transit) Use District
50-X Height and Bulk District
Block/Lot: 3502/108
Lot Size: 9,000 square feet
Plan Area: Market and Octavia Area Plan
Project Sponsor: Victor Quan, Valencia Street, LLC – (415) 531-8311
Vquan.sf@gmail.com
Staff Contact: Lana Russell-Hurd – (415) 575-9047
Lana.Russell@sfgov.org

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PROJECT DESCRIPTION

The project site is located at the northern edge of the Mission neighborhood, adjacent to the South of Market and Western Addition neighborhoods. The proposed 198 Valencia Street project would demolish the existing one-story, 1,877 square foot oil change facility and surface parking lot built in 1994 and construct a five-story, 55 foot tall, 33,795 gross square foot mixed-use building on the project site. The proposed building would include an approximately 16 foot tall elevator penthouse above the proposed building's 55 foot-tall structural roof. The building height, as measured from the top of the curb to the top of the elevator penthouse would be 71 feet. The proposed project would involve excavation of up to 3,400 cubic yards of soil to a depth of 14 feet for a subterranean basement.

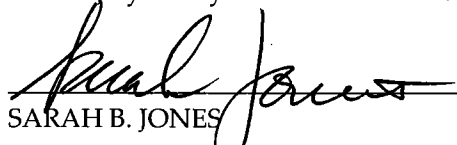
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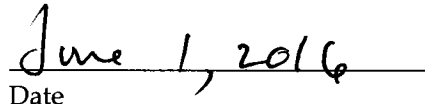
EXEMPT STATUS

Exempt per Section 15183 of the California Environmental Quality Act (CEQA) Guidelines and California Public Resources Code Section 21083.3

DETERMINATION

I do hereby certify that the above determination has been made pursuant to State and Local requirements.


SARAH B. JONES
Environmental Review Officer


Date

cc: Victor Quan, Project Sponsor; Supervisor Scott Wiener, District 8; Jonathan Disalvo, Current Planning Division; Virna Byrd, M.D.F.; Exemption/Exclusion File

PROJECT DESCRIPTION (continued)

The proposed 33,795 gross square foot mixed-use building would include 6,269 square feet of ground floor commercial space and a subterranean garage (accessed via a 11-foot curb cut on Duboce Avenue) and 28 residential units on the first through fourth-floor levels. The proposed project would accommodate 19 off-street parking spaces and 28 Class I bicycle parking spaces in the subterranean garage. Four Class II bicycle parking spaces are proposed on the sidewalk adjacent to the project site along Valencia Street and Duboce Avenue. The proposed project would provide about 2,590 square feet of common open space on the roof for the residential uses, and approximately 2,100 square feet of private open space via private terraces.

PROJECT APPROVAL

The proposed 198 Valencia Street project would require the following approvals:

Project Approvals

- **Department of Building Inspection (DBI).** Approval of site (building), demolition, grading permits for the demolition of the existing building and construction of the new building.
- **Department of Public Health (DPH).** Approval of a Site Mitigation Plan prior to the commencement of any excavation work.
- **San Francisco Municipal Transportation Agency (SFMTA).** Approval of the proposed curb modifications and parking garage operations plan.
- **Bureau of Street Use and Mapping, San Francisco Public Works (SFPW).** Street and sidewalk permits for any modifications to public streets, sidewalks, protected trees, street trees, or curb cuts.
- **San Francisco Public Utilities Commission (SFPUC).** 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.

Approval Action

The proposed project is subject to notification under Planning Code Section 312. If discretionary review before the Planning Commission is requested, the discretionary review decision constitutes the Approval Action for the proposed project. If no discretionary review is requested, the issuance of the building permit by the Department of Building Inspection constitutes the Approval Action for the proposed project. The Approval Action date establishes the start of the 30-day appeal period for this CEQA exemption determination pursuant to Section 31.04(h) of the San Francisco Administrative Code.

COMMUNITY PLAN EXEMPTION OVERVIEW

California Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183 provide 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 significant effects which 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; or d) are previously identified in the EIR, but which, as a result of substantial new information that was not known at the time that the EIR was certified, 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 the project solely on the basis of that impact.

This determination evaluates the potential project-specific environmental effects of the 198 Valencia Street project described above, and incorporates by reference information contained in the Programmatic Environmental Impact Report for the Market and Octavia Area Plan (PEIR)¹. Project-specific studies were prepared for the proposed project to determine if the project would result in any significant environmental impacts that were not identified in the Market and Octavia PEIR.

On April 5, 2007, the Planning Commission certified the Market and Octavia PEIR for the Market and Octavia Area Plan by Motion 17406.² The certification of the PEIR was upheld on appeal to the Board of Supervisors at a public hearing on June 19, 2007. The PEIR analyzed amendments to the Planning Code, Zoning Maps, and the San Francisco General Plan to implement the Market and Octavia Area Plan. The PEIR analysis was based upon an assumed development and activity that were anticipated to occur under the Market and Octavia Area Plan.

Subsequent to the certification of the PEIR, on May 30, 2008, the Board of Supervisors approved, and the Mayor signed into law, amendments to the Planning Code, Zoning Maps, and General Plan. The legislation created several new zoning controls which allows for flexible types of new housing to meet a broad range of needs, reduces parking requirements to encourage housing and services without adding cars, balances transportation by considering people movement over auto movement, and builds walkable “whole” neighborhoods meeting everyday needs.

As a result of the Market and Octavia rezoning process, the project site has been rezoned from NC-3 (Moderate Scale Neighborhood Commercial) District to NCT-3 (Moderate Scale Neighborhood Commercial Transit) District. The NCT-3 District is intended to promote transit-oriented moderate- to high-density mixed-use neighborhoods of varying scale concentrated near transit services. The maximum allowable building height for the site is 50 feet, except with permitted exceptions such as the additional 5-foot height bonus that would be used (which is permitted when a project includes ground floor active uses per Planning Code Section 263.20) and permitted exception such as the allowance for elevator shafts to protrude 16 feet beyond the height limit (Planning Code Section 260(b)(1)(A)) and the allowance for stair penthouses to protrude 10 feet beyond the height limit (Planning Code Section 260(b)(1)(B)). Per Planning Code Sections 731.21 and 121.2, a non-residential use equal to, or exceeding, 6,000 square feet of floor area must seek Conditional Use Authorization. The project proposes two retail spaces, and each individual proposed retail space is less than 6,000 gross square feet. Nonresidential use size is defined by

¹ San Francisco Planning Department, *Market and Octavia Area Plan Final Environmental Impact Report*, April 5, 2007. Case No. 2003.0347E, State Clearinghouse No. 2004012118. Available at www.sf-planning.org/index.aspx?page=1714. This document also is available for review at 1650 Mission Street, Suite 400, San Francisco, CA, as part of Case No. 2003.0347E

² San Francisco Planning Department, *San Francisco Planning Commission Motion 17406*, April 5, 2007. Available at: <http://www.sf-planning.org/index.aspx?page=1714>.

Planning Code Section 790.130 as pertaining to each individual use. Though the cumulative total of both proposed retail spaces exceeds 6,000 gross square feet, Conditional Use Authorization is not required for the reason that each individual retail use, as proposed, is less than 6,000 gross square feet in size.

Individual projects that could occur in the future under the Market and Octavia Area Plan will 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 would be required. This determination concludes that the proposed project at 198 Valencia Street is consistent with and was encompassed within the analysis in the Market and Octavia PEIR. This determination also finds that the Market and Octavia PEIR adequately anticipated and described the impacts of the proposed 198 Valencia Street project, and identified the mitigation measures applicable to the 198 Valencia Street project. The proposed project is also consistent with the zoning controls and the provisions of the Planning Code applicable to the project site.³⁴ Therefore, no further CEQA evaluation for the 198 Valencia Street project is required. In sum, the Market and Octavia PEIR and this Certificate of Exemption for the proposed project comprise the full and complete CEQA evaluation necessary for the proposed project.

PROJECT SETTING

The project site is located at the northern edge of the Mission neighborhood, adjacent to the South of Market and Western Addition neighborhoods, and the project area is characterized by residential uses and neighborhood commercial uses, including restaurants, bars, cafés, and a variety of retail establishments.

The project site is located on a parcel (Assessor's Block 3502; Lot 108) bordered by commercial uses to the north on Valencia Street, mixed-use commercial and residential uses to the south on Valencia Street and to the east on Duboce Avenue and residential uses to the west on Duboce Avenue. The parcel totals 9,000 square feet in size (approximately 0.21 acres) and is located in a NCT-3 (Moderate Scale Neighborhood Commercial Transit) Zoning District and a 50-X Height and Bulk District, within the Market and Octavia Plan Area.

The project site is currently occupied by a one-story, 1,877 square foot oil change facility and a surface parking lot with seven off-street parking spaces. The project would remove the two existing curb cuts on Valencia Street and would relocate the existing curb cut on Duboce Avenue.

Parcels surrounding the project site are within NCT-3 and RTO (Residential Transit Oriented) Zoning Districts and a mixture of 40-X, 50-X, and 85-X Height and Bulk Districts, providing a number of one to four-story mixed-use buildings. The project site is also one block from the San Francisco Friends School, which is a kindergarten through 8th grade school. The project site is near the junction of three of the city's roadway grid systems: the north of Market, south of Market, and Mission grids meet at Market Street. Major roadways in the project vicinity include Dolores Street, Guerrero Street, Duboce Avenue, Mission Street, South Van Ness Avenue, Octavia Boulevard, and Van Ness Avenue. U.S. Highway 101 provides regional access to the project vicinity. The closest Bay Area Rapid Transit District (BART) stop is at Mission and 16th Streets, approximately 0.5 mile south of the site; and the closest San Francisco Municipal

³ San Francisco Planning Department, *Community Plan Exemption Eligibility Determination, Citywide Planning and Policy Analysis for 198 Valencia Street*, August 18, 2015. This document (and all other documents cited in this report, unless otherwise noted) is available for review at 1650 Mission Street, Suite 400, San Francisco, CA, as part of Case No. 2013.1458E

⁴ San Francisco Planning Department, *Community Plan Exemption Eligibility Determination, Current Planning Analysis for 198 Valencia Street*, August 18, 2016.

Railway (Muni) Metro stop is at Van Ness Avenue and Market Street, approximately 0.4 miles northeast of the site. The project site is within a quarter mile of several local transit lines, including Muni Metro lines J, K, L, M, N, and T; streetcar line F, as well as Muni bus lines N Owl, 6, 14, 14L, 16X, 22, 33, 49, 71, and 71L.

POTENTIAL ENVIRONMENTAL EFFECTS

The Market and Octavia PEIR included analyses of environmental issues including: plans and policies; land use and zoning; population, housing, and employment; urban design and visual quality; shadow and wind; cultural (historic and archaeological) resources; transportation; air quality; noise; hazardous materials; geology, soils, and seismicity; public facilities, services, and utilities; hydrology; biology; and growth inducement. The proposed 198 Valencia Street project is in conformance with the height, use and density for the site described in the Market and Octavia PEIR and would represent a small part of the growth that was forecast for the Market and Octavia plan area. Thus, the plan analyzed in the Market and Octavia PEIR considered the incremental impacts of the proposed 198 Valencia Street project. As a result, the proposed project would not result in any new or substantially more severe impacts than were identified in the Market and Octavia PEIR.

Significant and unavoidable impacts were identified in the Market and Octavia PEIR related to transportation (project- and program-level as well as cumulative traffic impacts at nine intersections; project-level and cumulative transit impacts on the 21 Hayes Muni line), and shadow impacts on two open spaces (War Memorial and United Nations Plaza). The proposed project would not contribute to the significant unavoidable transportation impacts as traffic and transit ridership generated by the project would not considerably contribute to the traffic and transit impacts identified in the Market and Octavia PEIR. Additionally, the proposed project would not contribute to the significant unavoidable shadow impacts because the project would not shade the War Memorial Open Space or United Nations Plaza. A preliminary shadow fan⁵ and Shadow Analysis Report⁶ indicates that the proposed project would not shade any public parks or open spaces under the control of the Recreation and Parks Department and would not substantially affect other parks and open spaces.

The Market and Octavia PEIR identified feasible mitigation measures to address significant impacts related to shadow, wind, archeology, transportation, air quality, hazardous materials, and geology. Table 1 below lists the mitigation measures identified in the Market and Octavia PEIR and states whether each measure would apply to the proposed project.

Table 1 – Market and Octavia PEIR Mitigation Measures

Mitigation Measure	Applicability	Compliance
A. Shadow		
A1: Parks and Open Space not Subject to Section 295	Applicable: Project exceeds a height of 50 feet.	The project sponsor has submitted a detailed shadow analysis.

⁵ San Francisco Planning Department, *Preliminary Shadow Fan*, January 6th, 2015.

⁶ PreVision Design, *Shadow Analysis Report for the Proposed 198 Valencia Street Project*, June 10th, 2015.

Mitigation Measure	Applicability	Compliance
B. Wind		
B1: Buildings in Excess of 85 feet in Height	Not Applicable: Proposed building height is below 85 feet.	N/A
B2: All New Construction	Applicable: Proposed new construction.	The project sponsor has submitted a detailed wind analysis.
C. Archaeological		
C1: Soil Disturbing Activities in Archaeologically Documented Properties	Not Applicable: Project site is not an archaeologically documented property.	N/A
C2: General Soil Disturbing Activities	Applicable: Project would involve general soil disturbing activities.	Project underwent a preliminary archeological review and is subject to archeological testing (see Project Mitigation Measure 1).
C3: Soil Disturbing Activities in Public Street and Open Space Improvements	Not Applicable: Project site would not include soil disturbing activities in the street or in open spaces.	N/A
C4: Soil Disturbing Activities in the Mission Dolores Archaeological District	Not Applicable: Project site is not located within the Mission Dolores Archaeological District.	N/A
D. Transportation		
D1: Traffic Mitigation Measure for Hayes and Gough Streets Intersection (LOS C to LOS F PM peak hour)	Not Applicable: Automobile delay removed from CEQA analysis.	N/A
D2: Traffic Mitigation Measure for Hayes and Franklin Streets Intersection (Los D to LOS F PM peak hour)	Not Applicable: Automobile delay removed from CEQA analysis.	N/A
D3: Traffic Mitigation Measure for Laguna/Market/Hermann/Guerrero Streets Intersection (LOS D to LOS E PM peak-hour)	Not Applicable: Automobile delay removed from CEQA analysis.	N/A
D4: Traffic Mitigation Measure for Market/Sanchez/Fifteenth Streets	Not Applicable: Automobile delay removed from CEQA	N/A

Mitigation Measure	Applicability	Compliance
Intersection (LOS E to LOS E with increased delay PM peak-hour)	analysis.	
D5: Traffic Mitigation Measure for Market/Church/Fourteenth Streets Intersection (LOS E to LOS E with increased delay PM peak hour)	Not Applicable: Automobile delay removed from CEQA analysis.	N/A
D6: Traffic Mitigation Measure for Mission Street/Otis Street/South Van Ness Intersection (LOS F to LOS F with increased delay PM peak-hour)	Not Applicable: Automobile delay removed from CEQA analysis.	N/A
D7: Traffic Mitigation Measure for Hayes Street/Van Ness Avenue Intersection (LOS F to LOS F with increased delay PM peak hour)	Not Applicable: Automobile delay removed from CEQA analysis.	N/A
D8. Transit Mitigation Measure for degradation to transit service as a result of increase in delays at Hayes Street intersections at Van Ness Avenue (LOS F to LOS F with increased delays); Franklin Street (LOS D to LOS F); and Gough Street (LOS C to LOS F) PM peak hour	Not Applicable: Automobile delay removed from CEQA analysis.	N/A
E. Air Quality		
E1: Construction Mitigation Measure for Particulate Emissions	Not Applicable: Project would comply with the San Francisco Dust Control Ordinance	N/A
E2: Construction Mitigation Measure for Short-Term Exhaust Emissions	Applicable: The project is located in an Air Pollutant Exposure Zone.	The project sponsor has agreed to develop and implement a Construction Emissions Minimization Plan for Health Risks and Hazards (see Project Mitigation Measure 2).
F. Hazardous Materials		
F1: Program or Project Level Mitigation Measures	Not Applicable: Project would comply with the San Francisco Dust Control Ordinance and Maher Ordinance.	N/A
G. Geology, Soils, and Seismicity		

Mitigation Measure	Applicability	Compliance
G1: Construction Related Soils Mitigation Measure	Not Applicable: Superseded by Public Works Code Sections 146 and 147.	N/A

Please see the attached Mitigation Monitoring and Reporting Program (MMRP) for the complete text of the applicable mitigation measures. With implementation of these mitigation measures the proposed project would not result in significant impacts beyond those analyzed in the Market and Octavia PEIR.

PUBLIC NOTICE AND COMMENT

A "Notification of Project Receiving Environmental Review" was mailed on November 21st, 2014 to adjacent occupants and owners of properties within 300 feet of the project site. Comments received from the public addressed the following topics:

- Traffic and parking impacts of the proposed project.
- Shadow impacts of the proposed project.
- Geology impacts of the proposed project.
- Hazardous material impacts of the proposed project.
- Air quality impacts of the proposed project.
- Height and scale of the proposed project.
- Aesthetics, lighting, and overall design of the proposed project.

The issues raised in these comments were taken into consideration and incorporated in the environmental review as appropriate for CEQA analysis.

In addition, an adjacent property owner commented about liability for damage to private property. Since this concern does not relate to physical environmental effects, it is outside of the scope of CEQA and is not addressed in the environmental review for the project. Comments that relate to economic, financial, and legal concerns may be considered by City decision-makers during their deliberations on whether to approve, modify, or disapprove the proposed project.

The proposed project would not result in significant adverse environmental impacts associated with the issues identified by the public beyond those identified in the Market and Octavia PEIR.

CONCLUSION

As summarized above and further discussed in the CPE Checklist⁷:

1. The proposed project is consistent with the development density established for the project site in the Market and Octavia Area Plan;

⁷ The CPE Checklist is available for review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, in Case File No. 2013.1458E.

2. The proposed project would not result in effects on the environment that are peculiar to the project or the project site that were not identified as significant effects in the Market and Octavia PEIR;
3. The proposed project would not result in potentially significant off-site or cumulative impacts that were not identified in the Market and Octavia PEIR;
4. The proposed project would not result in significant effects, which, as a result of substantial new information that was not known at the time the Market and Octavia PEIR was certified, would be more severe than were already analyzed and disclosed in the PEIR; and
5. The project sponsor will undertake feasible mitigation measures specified in the Market and Octavia PEIR to mitigate project-related significant impacts.

Therefore, the proposed project is exempt from further environmental review pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183.



SAN FRANCISCO PLANNING DEPARTMENT

Community Plan Exemption Checklist

Case No.: 2013.1458E
Project Address: **198 Valencia Street**
Zoning: NCT-3 (Moderate Scale Neighborhood Commercial Transit) Use District
50-X Height and Bulk District
Block/Lot: 3502/108
Lot Size: 9,000 square feet
Plan Area: Market and Octavia Area Plan
Project Sponsor: Victor Quan, Valencia Street, LLC – (415) 531-8311
Vquan.sf@gmail.com
Staff Contact: Lana Russell-Hurd – (415) 575-9047
Lana.Russell@sfgov.org

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 project site is located at the northern edge of the Mission neighborhood, adjacent to the South of Market and Western Addition neighborhoods, and the project area is characterized by residential uses and neighborhood commercial uses, including restaurants, bars, cafés, and a variety of retail establishments.

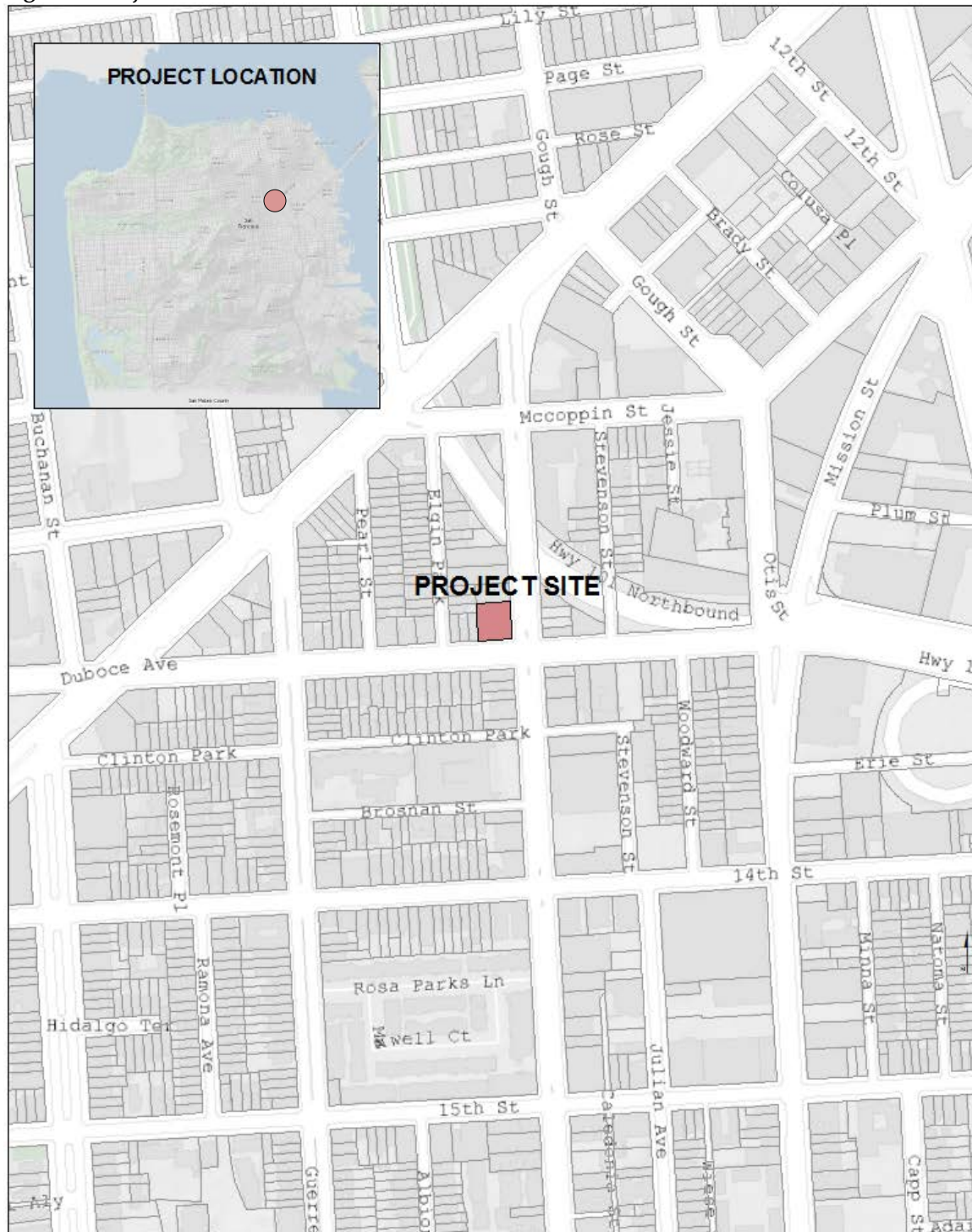
The project site is located on a parcel (Assessor's Block 3502; Lot 108) bordered by commercial uses to the north on Valencia Street, mixed use commercial and residential uses to the south on Valencia Street and to the east on Duboce Avenue, and residential uses to the west on Duboce Avenue. The parcel totals 9,000 square feet in size (approximately 0.21 acres) and is located in a NCT-3 (Moderate Scale Neighborhood Commercial Transit) Zoning District and a 50-X Height and Bulk District, within the Market and Octavia Area Plan.

The project site is currently occupied by a one-story, 1,877 square foot oil change facility and a surface parking lot with seven off-street parking spaces. The project site has three existing curb cuts; two on Valencia Street and one on Duboce Avenue.

Parcels surrounding the project site are within NCT-3 and RTO (Residential Transit Oriented) Zoning Districts and a mixture of 40-X, 50-X, and 85-X Height and Bulk Districts, providing a number of one to four-story mixed-use buildings. The project site is also one block from the San Francisco Friends School, which is a kindergarten through 8th grade school. The project site is near the junction of three of the city's roadway grid systems: the north of Market, south of Market, and Mission grids meet at Market Street. Major roadways in the project vicinity include Dolores Street, Guerrero Street, Duboce Avenue, Mission Street, South Van Ness Avenue, Octavia Boulevard, and Van Ness Avenue. U.S. Highway 101 provides regional access to the project vicinity. The closest Bay Area Rapid Transit District (BART) stop is at Mission and 16th Streets, approximately 0.5 mile south of the site; and the closest San Francisco Municipal Railway (Muni) Metro stop is at Van Ness Avenue and Market Street, approximately 0.4 miles northeast of the site. The project site is within a quarter mile of several local transit lines, including Muni Metro

lines J, K, L, M, N, and T; streetcar line F, as well as Muni bus lines N Owl, 6, 14, 14L, 16X, 22, 33, 49, 71, and 71L.

Figure 1: Project Location



Source: SF Planning Department, January 2015.

Existing Conditions

Information pertaining to the existing oil change facility is summarized in Table 1 and shown on Figure 2.

Table 1: Existing Uses on the Project Site

Lot ^a Number	Address	Lot Size (square feet)	Building Area (square feet)	Date Constructed	Uses/Building Characteristics
108	198 Valencia Street	9,000	1,877	1994	One-story, oil change facility
Total	—	9,000	1,877	—	—
Notes:					
^a The project site is located on Assessor's Block 3502.					

Project Characteristics

The proposed 198 Valencia Street project (project or proposed project) would demolish an existing one-story, 1,877 square foot oil change facility and surface parking lot built in 1994 and construct a five-story, 55 foot-tall, 33,795 gross square foot mixed-use building on the project site. The project would remove the two existing curb cuts on Valencia Street and would relocate the existing curb cut on Duboce Avenue.

The maximum allowable building height for the site is 50 feet, except with permitted exceptions such as the additional 5-foot height bonus that would be used (which is permitted when a project includes ground floor active uses per Planning Code Section 263.20) and the allowance for elevator shafts to protrude 16 feet beyond the height limit (Planning Code Section 260(b)(1)(A)) the allowance for elevator shafts to protrude 16 feet beyond the height limit (Planning Code Section 260(b)(1)(B)) and the allowance for stair penthouses to protrude 10 feet beyond the height limit (Planning Code Section 260(b)(1)(B)). Per Planning Code Sections 731.21 and 121.2, a non-residential use equal to, or exceeding, 6,000 square feet of floor area must seek Conditional Use Authorization. The project proposes two retail spaces, and each individual proposed retail space is less than 6,000 gross square feet. Nonresidential use size is defined by Planning Code Section 790.130 as pertaining to each individual use. Though the cumulative total of both proposed retail spaces exceeds 6,000 gross square feet, Conditional Use Authorization is not required for the reason that each individual retail use, as proposed, is less than 6,000 gross square feet in size.

The proposed 33,785 gross square foot mixed-use building would include 6,269 gross square feet of ground-floor commercial space and a subterranean garage (accessed via a 11-foot curb cut on Duboce Avenue) on the and 28 residential units (16 one-bedroom units and 12 two-bedroom units) on the first through fourth-floor levels. The proposed project would accommodate 19 off-street parking spaces and 28 Class I bicycle parking spaces in a subterranean garage. Four Class II bicycle parking spaces are proposed on the sidewalk adjacent to the project site along Valencia Street and Duboce Avenue. The proposed project would provide about 2,590 square feet of common open space on the roof for the residential uses and approximately 2,100 square feet of private terraces, and approximately 1,877 square feet of private open space via private terraces.

Project construction is anticipated to occur over a 15 month period. The proposed project would entail approximately 3,400 cubic yards of soil excavation (including soil removal) up to a depth of 14 feet below the ground surface. It is not anticipated that any soil would be imported to the project site. The project would not require pile-driving.

The site plan illustrates the following features:

- EXISTING 3 STORY BUILDING**: ADJACENT BUILDING, 118 DUBOISE AVE, LOT: 16.
- EXISTING 4 STORY BUILDING**: LOT: 97.
- EXISTING 2 STORY BUILDING**: LOT: 128-129.
- EXISTING 2 STORY BUILDING**: LOT: 128-129.
- EXISTING 1 STORY BUILDING**: ADJACENT BUILDING, 124 VETERAN STREET, LOT: 14.
- EXISTING TRASH ENCLOSURE**: 150 SF.
- EXISTING 1 STORY BUILDING**: 1,727 SF.
- Parking Lot Dimensions**: 152'-0" by 160'-0".
- Proposed Improvements**: EXISTING CURB CUT (TYP.), EXISTING FENCE (TYP.), EXISTING CONC. CURB (TYP.), EXISTING TREE (TYP.), EXISTING HIGH PRESSURE HYDRANT.

Table 2: Proposed Uses

Lot	Dimensions
Size	9,000 square feet
Width	100 feet (Valencia Street)
Length	90 feet (Duboce Avenue)
Proposed Uses	Area (gross square feet)
Residential	27,526
Commercial	6,269
Total	33,795
Proposed Units/Parking Spaces	Amount (percent)
Residential Units	28 (100%)
1-Bedroom	16 (57.1%)
2-Bedroom	12 (42.9%)
Commercial	1 space
Parking Spaces	19
Bicycle Parking Spaces	32 ^a
Open Space	Area (gross square feet)
Common roof terrace	2,590
Building Characteristics	Levels/Height
Valencia Street frontage	Five levels (ground-floor commercial/four levels residential)/ 55 feet plus 16-foot elevator penthouse
Duboce Avenue frontage	Five levels (ground-floor commercial/four levels residential)/ 55 feet plus 16-foot elevator penthouse
Parking	Below grade garage
Notes:	
^a Bicycle parking spaces: 28 Class 1 bicycle parking spaces would be located in the garage and four Class 2 parking spaces would be located on the sidewalk adjacent to the project site along Valencia Street and Duboce Avenue for the residential and retail uses.	

[illegible]

EXISTING 3 STORY BUILDING

EXISTING BUILDING

25'0" REAR YARD

UNIT 202
2 BR, 2 BA
1,070 SF

LIVING / DINING

KITCHEN

BATHRM 1

BATHRM 2

BR 2

BR 2

UNIT 201
1 BR, 1 BA
1,000 SF

LIVING / DINING

KITCHEN

BATHRM 1

BATHRM 2

BR 1

BR 2

UNIT 203
1 BR, 1 BA
800 SF

LIVING / DINING

KITCHEN

BATHRM 1

BATHRM 2

BR 1

BR 2

UNIT 204
1 BR, 1 BA
800 SF

LIVING / DINING

KITCHEN

BATHRM 1

BATHRM 2

BR 1

BR 2

UNIT 205
2 BR, 2 BA
1,060 SF

LIVING / DINING

KITCHEN

BATHRM 1

BATHRM 2

BR 2

BR 2

UNIT 206
1 BR, 1 BA
800 SF

LIVING / DINING

KITCHEN

BATHRM 1

BATHRM 2

BR 1

BR 2

UNIT 207
1 BR, 1 BA
800 SF

LIVING / DINING

KITCHEN

BATHRM 1

BATHRM 2

BR 1

BR 2

UNIT 208
1 BR, 1 BA
800 SF

LIVING / DINING

KITCHEN

BATHRM 1

BATHRM 2

BR 1

BR 2

STAIR NO. 1
UP
DN

ELEV
UP
DN

TERACE

VALENCIA STREET

LINE OF ALLOWED BY PLANNING DEPT.
SET BACKS (TOP FOR ALL FLOORS)

Figure 5 –Basement Floor Plan

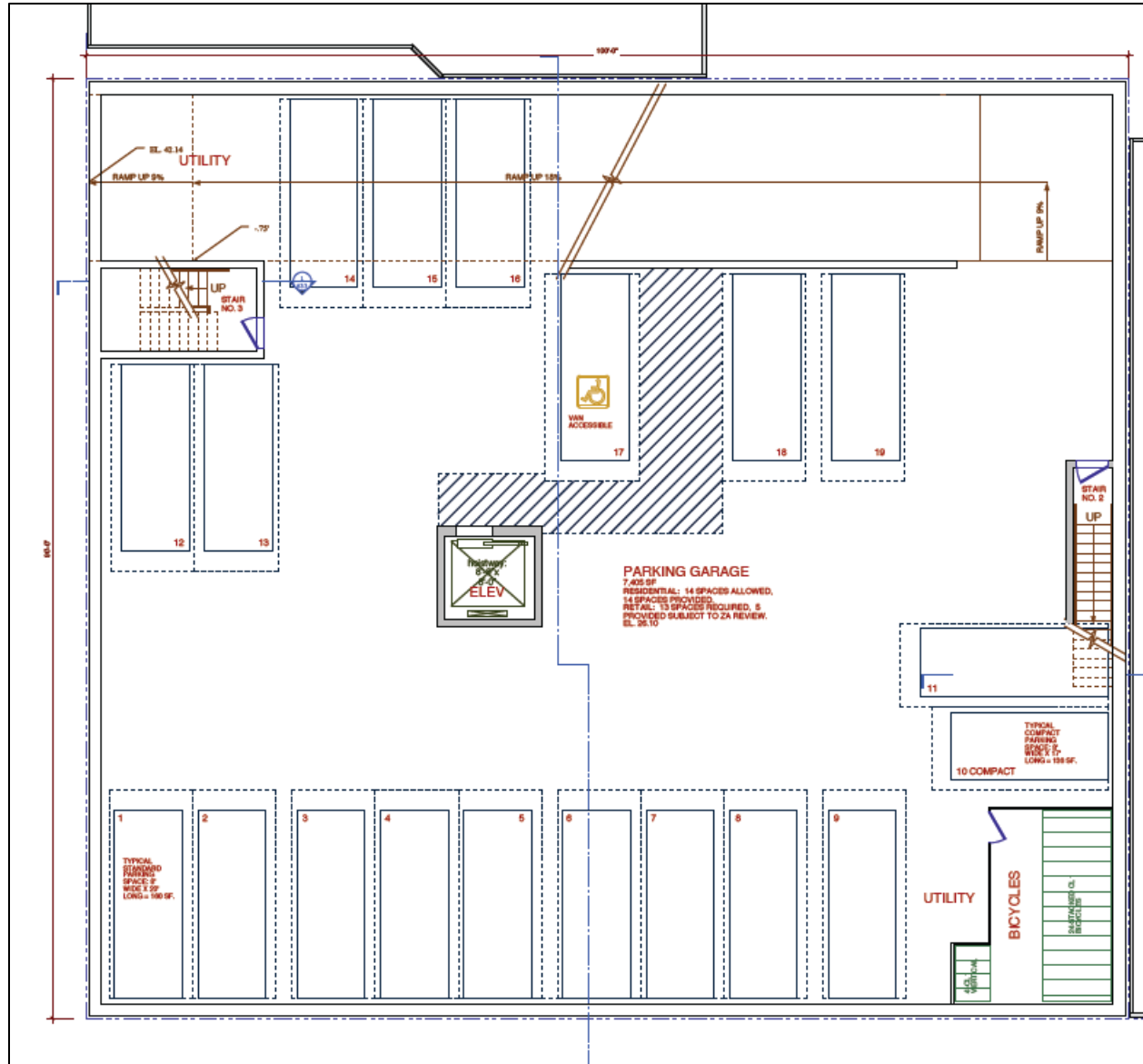
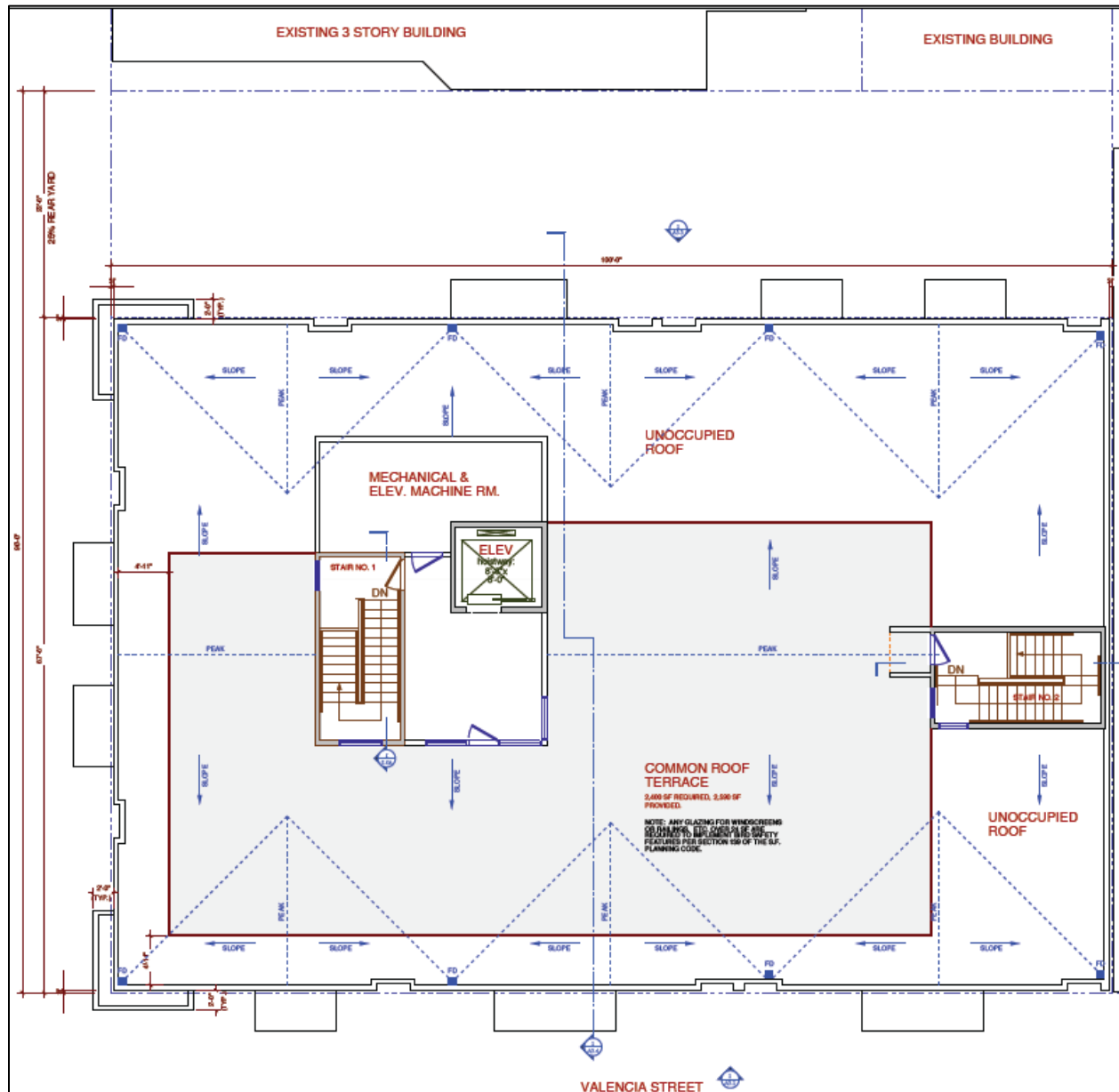


Figure 6 –Roof Plan



4"-0" HIGH PARAPET (TYP.)

65'-0" MAXIMUM BUILDING HEIGHT PER S.F. PLANNING DEPT.

65'-0" ACTUAL BUILDING HEIGHT PER S.F. PLANNING DEPT.

10'-0" HIGH PARAPET

65'-0"

TO EL. 39.41 AT CL OF 65' SECTION

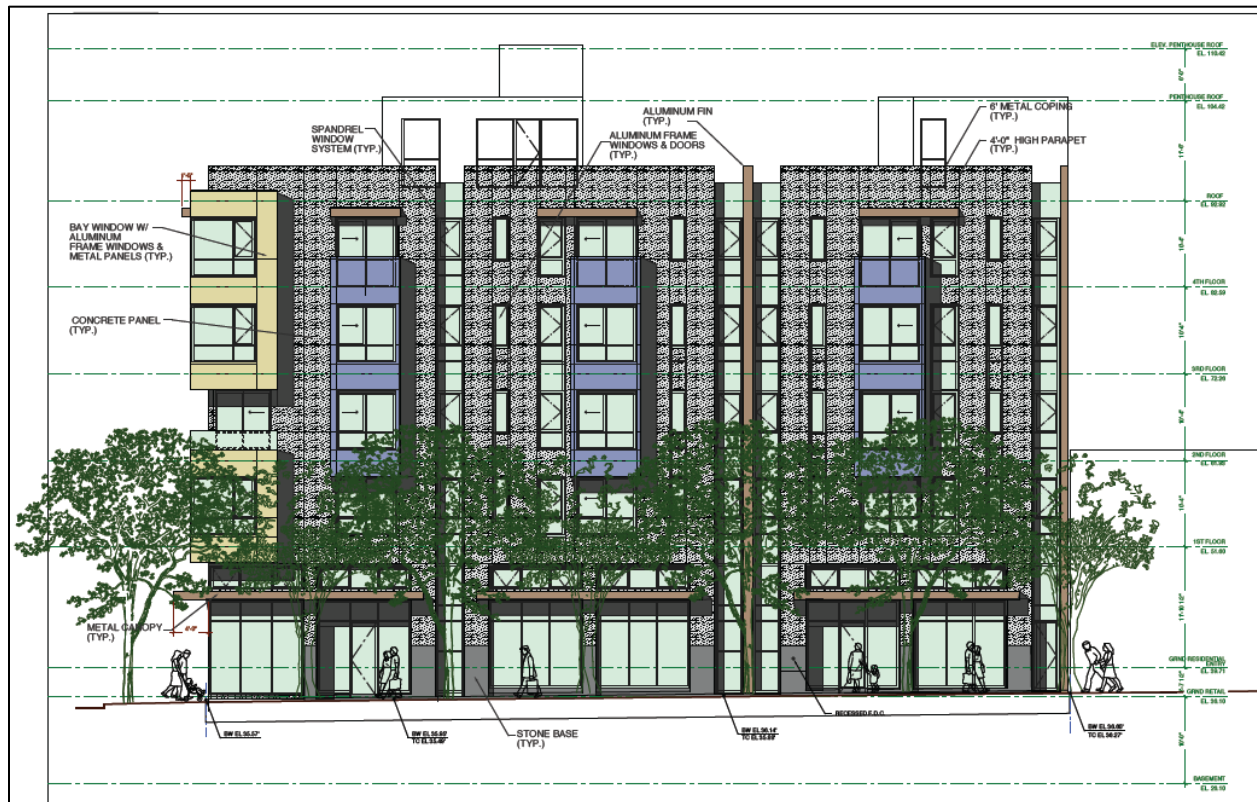
BUILDING HEIGHT FOR PLANNING DEPT. TAKEN FROM DUBOICE STREET EL. 39.41'

NOTE: PER D.C. DETERMINATION THE HEIGHT OF THE BUILDING IS THE VERTICAL DISTANCE FROM THE GROUND PLANE TO THE HIGHEST ROOF SURFACE = 64'-8" UP

SEE SHEET A-1 FOR ALL EXTERIOR MATERIALS

LEVEL MARKERS: ROOF, EL. 119.60; FIFTH FLOOR, EL. 104.00; ROOF, EL. 99.00; FIFTH FLOOR, EL. 83.50; FIFTH FLOOR, EL. 73.00; FIFTH FLOOR, EL. 68.00; FIFTH FLOOR, EL. 57.40; GROUND (DUBOICE ST.), EL. 39.71; GROUND (METAL), EL. 39.10; BASEMENT, EL. 28.10.

Figure 8 – Valencia Street Façade



PROJECT APPROVAL

The proposed 198 Valencia Street project would require the following approvals:

Project Approvals

- **Department of Building Inspection (DBI).** Approval of site (building), demolition, grading permits for the demolition of the existing building and construction of the new building.
- **Department of Public Health (DPH).** Approval of a Site Mitigation Plan prior to the commencement of any excavation work.
- **San Francisco Municipal Transportation Agency (SFMTA).** Approval of the proposed curb modifications and parking garage operations plan.
- **Bureau of Street Use and mapping, San Francisco Public Works (SFPW).** Street and sidewalk permits for any modifications to public streets, sidewalks, protected trees, street trees, or curb cuts.
- **San Francisco Public Utilities Commission (SFPUC).** 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.

Approval Action

The proposed project is subject to notification under Planning Code Section 312. If discretionary review before the Planning Commission is requested, the discretionary review decision constitutes the Approval Action for the proposed project. If no discretionary review is requested, the issuance of the building permit by the Department of Building Inspection constitutes the Approval Action for the proposed project. The Approval Action date establishes the start of the 30-day appeal period for this CEQA exemption determination pursuant to Section 31.04(h) of the San Francisco Administrative Code.

EVALUATION OF ENVIRONMENTAL EFFECTS

This Community Plan Exemption (CPE) Checklist examines the potential environmental impacts that would result from implementation of the proposed project, and indicates whether such impacts are addressed in the Programmatic Environmental Impact Report for the Market and Octavia Area Plan (Market and Octavia PEIR)¹. 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 Market and Octavia 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 Market and Octavia 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 topics are identified, the proposed project is

¹ San Francisco Planning Department, *Market and Octavia Area Plan Final Environmental Impact Report*, Case No. 2003.0347E, State Clearinghouse No. 2004012118, April 5, 2007. Available at www.sf-planning.org/index.aspx?page=1714. This document also is available for review at 1650 Mission Street Suite 400, San Francisco, CA, as part of Case No. 2003.0347E.

exempt from further environmental review in accordance with CEQA Section 21083.3 and CEQA Guidelines Section 15183.

Mitigation measures identified in the PEIR are discussed under each topic area, and measures that are applicable to the proposed project are provided under Mitigation and Improvement Measures section at the end of this checklist.

The Market and Octavia PEIR identified significant impacts related to archaeology, transportation, air quality, wind, shadow, geology, and hazardous materials. Mitigation measures were identified for the above impacts and reduced all impacts to less than significant, with the exception of those related to transportation (project- and program-level as well as cumulative traffic impacts at nine intersections; project-level and cumulative transit impacts on the 21 Hayes Muni line), and shadow impacts on two open spaces (the War Memorial Open Space and United Nations Plaza).

The proposed project would result in demolition of an existing building and surface parking lot and construction of a five-story, 55 foot tall (71 feet including the 16 foot tall elevator penthouse above the structural roof), 33,795 gross square foot mixed-use building on the project site. The proposed mixed-use building would include 28 residential units and approximately 6,269 gross square feet of ground-floor retail. As discussed below in this CPE Checklist, the proposed project would not result in new, significant environmental effects, or effects of greater severity than were already analyzed and disclosed in the Market and Octavia PEIR.

SENATE BILL 743

Aesthetics and Parking

In accordance with CEQA Section 21099 – Modernization of Transportation Analysis for Transit Oriented Projects – aesthetics and parking shall not be considered in determining if a project has the potential to result in significant environmental effects, provided the project meets 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.² Project elevations are included in the project description.

Automobile Delay and Vehicle Miles Traveled

In addition, CEQA Section 21099(b)(1) requires that the State Office of Planning and Research (OPR) develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” CEQA Section 21099(b)(2) states that upon certification of the revised guidelines for determining transportation impacts pursuant to Section 21099(b)(1), automobile delay, as described solely by level of service or similar

² San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 –Modernization of Transportation Analysis for 198 Valencia Street*, April 8, 2016.

measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment under CEQA.

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](#)³ recommending that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. On March 3, 2016, in anticipation of the future certification of the revised CEQA Guidelines, the San Francisco Planning Commission adopted OPR's recommendation to use the VMT metric instead of automobile delay to evaluate the transportation impacts of projects (Resolution 19579). (Note: the VMT metric does not apply to the analysis of project impacts on non-automobile modes of travel such as riding transit, walking, and bicycling.) Therefore, impacts and mitigation measures from the Market and Octavia PEIR associated with automobile delay are not discussed in this checklist, including PEIR Mitigation Measures D3: Traffic Mitigation Measure for Laguna/Market/Hermann/Guerrero Streets Intersection (LOS D to LOS E PM peak-hour), D4: Traffic Mitigation Measure for Market/Sanchez/ Fifteenth Streets Intersection (LOS E to LOS E with increased delay PM peak-hour), D5: Traffic Mitigation Measure for Market/Church/Fourteenth Streets Intersection (LOS E to LOS E with increased delay PM peak hour), and D6: Traffic Mitigation Measure for Mission Street/Otis Street/South Van Ness Intersection (LOS F to LOS F with increased delay PM peak-hour). Instead, VMT and induced automobile travel impact analyses are provided in the Transportation and Circulation section of this checklist.

<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>
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 Market and Octavia PEIR determined that adoption of the Area Plan would not result in a significant adverse impact on land use or land use planning. Furthermore, as determined by the Citywide and Current Planning divisions of the Planning Department, the proposed project is permitted in the zoning district in which the project site is located, and is consistent with the bulk, density, and land uses as envisioned in the Area Plan, described CEQA.^{4,5}

³ This document is available online at: https://www.opr.ca.gov/s_sb743.php.

⁴ San Francisco Planning Department, *Community Plan Exemption Eligibility Determination, Citywide Planning and Policy Analysis for 198 Valencia Street*, August 18, 2015

⁵ San Francisco Planning Department, *Community Plan Exemption Eligibility Determination Current Planning Division for 198 Valencia Street*, August 18, 2016.

The Market and Octavia rezoning process of 2007 rezoned the project site to a (NCT) Neighborhood Commercial Transit District with a height and bulk district designation of 50-X. The 50-X height and bulk District permits buildings up to 50 feet in height with no bulk restrictions. The NCT-3 District permits dwelling units with no density limitations, allowing, physical controls such as height, bulk, and setback to control dwelling unit density. At least 40 percent of all dwelling units must contain two or more bedrooms or 30 percent of all dwelling units must contain three or more bedrooms in the NCT-3 District.

The NCT-3 District permits non-residential development at a floor area ratio of 3.6:1. It also allows commercial and institutional uses up to 5,999 square feet per use as principally permitted uses. Uses with 6,000 square feet or more require a Conditional Use Authorization.

The project includes two ground-floor retail spaces that together total 6,269 gross square feet (4,045 gross square feet and 2,224 gross square feet), and is within the 3.6:1 FAR limit. Though the cumulative total of both proposed retail spaces exceeds 6,000 gross square feet, Conditional Use Authorization is not required for the reason that each individual retail use, as proposed, is less than 6,000 gross square feet in size. The project contains 28 dwelling units, 43 percent of which are 2-bedroom units. The building has been designed to include the required 25 percent rear yard setback requirement at all residential levels (2nd floor and above). The project would not exceed the applicable 55-foot height limit, (5-foot base height plus 5-foot height bonus permitted for projects that include ground floor active uses per Planning Code Section 263.20), as well as certain rooftop features such as open space features, mechanical screens, and stair and elevator penthouses as allowable by Planning Code Section 260(B).

As proposed, the project is permitted in the NCT-3 District and is consistent with the development density as envisioned in the Market and Octavia Plan.

The proposed project is consistent with the bulk, density, and land uses as envisioned in the Market and Octavia Plan. The project falls within the Neighborhood Commercial Transit zoning district (NCT3), meant to encourage moderate scale development concentrated near intensive transit services that mixes retail, limited office, and residential uses. As a residential development with ground-floor commercial uses, the proposed project is consistent with this designation. For these reasons, the proposed project would not result in significant project-specific or cumulative impacts related to land use and land use planning beyond those identified in the Market and Octavia PEIR 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>
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"/>

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>
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"/>

A goal of the Market and Octavia Area Plan is to implement citywide policies to increase the housing supply at higher densities in neighborhoods having sufficient transit facilities, neighborhood-oriented uses, and in-fill development sites. The Market and Octavia PEIR analyzed a projected increase of 7,620 residents in the Plan Area by the year 2025 and determined that this anticipated growth would not result in significant adverse physical effects on the environment. No mitigation measures were identified in the PEIR.

The proposed project would replace the existing oil change facility and surface parking lot on the site with 28 residential units and 6,269 gross square feet of ground-floor commercial space. The project would result in an increase of 27,015 gross square feet of residential use and 6,269 gross square feet of commercial use, and a decrease of 1,877 square feet of Production, Distribution and Repair (PDR) use. These direct effects of the proposed project on population and housing are within the scope of the population growth anticipated under the Market and Octavia Area Plan and evaluated in the Market and Octavia PEIR.

For the reasons described above, the proposed project would not result in significant project-specific or cumulative impacts on population and housing that were not identified in the Market and Octavia PEIR, 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>
CULTURAL 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) 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

The Market and Octavia PEIR noted that although development would be allowed in the Plan Area, the implementation of urban design guidelines and other rules, such as evaluation under CEQA, would reduce the overall impact on historic architectural resources to a less-than-significant level. No mitigation measures were identified.

Under CEQA, evaluation of the potential for proposed projects to impact historical resources is a two-step process: the first is to determine whether the property is an historical resource as defined in

Section 15064.5(a)(3) of CEQA; and, if it is determined to be an historical resource, the second is to evaluate whether the action or project proposed would cause a substantial adverse change.

The existing building and surface parking lot on the project site, constructed in 1994, is less than 50 years of age and is classified as Category C (properties determined not to be historic resources or properties for which the city has no information indicating that the property is an historic resource). In addition, the project site is not located within an eligible or identified historic district. Therefore, the site is not considered to be a historic resource for the purposes of CEQA and the proposed project would not result in the demolition or alteration of any historic resources. For these reasons, the proposed project would not contribute to significant project-specific or cumulative historic resource impacts identified in the Market and Octavia PEIR, and no historic resource mitigation measures would apply to the proposed project.

Archaeological Resources

The Market and Octavia PEIR determined that implementation of the Area Plan could result in significant impacts on archaeological resources, and identified four mitigation measures that would reduce these potential impacts to a less-than-significant level (Mitigation Measures C1 through C4). Mitigation Measure C1 – Soil-Disturbing Activities in Archaeologically Documented Properties⁶ applies to properties that have a final Archeological Resource Design/Treatment Plan (ARDTP) on file; it requires that an addendum to the ARDTP be completed. Mitigation Measure C2 – General Soils-Disturbing Activities⁷ was determined to be applicable for any project involving any soils-disturbing activities beyond a depth of 4 feet and located in those areas proposed in the Area Plan for which no archaeological assessment report has been prepared. Mitigation Measure C2 requires that a Preliminary Archaeological Sensitivity Study (PASS) be prepared by a qualified consultant or that a Preliminary Archaeological Review (PAR) be conducted by Planning Department staff. Mitigation Measure C3 – Soil-Disturbing Activities in Public Street and Open Space Improvements⁸ applies to improvements to public streets and open spaces if those improvements disturb soils beyond a depth of 4 feet; it requires an Archeological Monitoring Program. Mitigation Measure C4 – Soil-Disturbing Activities in the Mission Dolores Archaeological District⁹ applies to projects in the Mission Dolores Archeological District that result in substantial soils disturbance; it requires an Archaeological Testing Program, as well as an Archaeological Monitoring Program and Archaeological Data Recovery Program, if appropriate.

The PEIR anticipated that development at the project site would have the potential to disturb archaeological deposits, and that Market and Octavia PEIR Mitigation Measure C2 would apply to the proposed project. Based on a review of San Francisco Planning Department records, no previous archaeological investigations have occurred at the project site. However, pursuant to Market and Octavia PEIR Mitigation Measure C2, a PAR was conducted by Planning Department staff for the proposed project. Based on the PAR, it has been determined that the Planning Department's third standard archaeological mitigation measure (testing) would apply to the proposed project.¹⁰ Although no archaeological resources have been previously identified within the project area, the project site may harbor previously undiscovered California Register of Historical Resources- (CRHR) eligible prehistoric

⁶ Throughout this CPE, mitigation measures from the Market and Octavia PEIR are numbered based on the adopted Mitigation Monitoring and Reporting Program for the project; mitigation numbers from the PEIR are also provided for reference. Mitigation Measure C1 is Mitigation Measure 5.6.A1 in the PEIR.

⁷ Mitigation Measure C2 is Mitigation Measure 5.6.A2 in the PEIR.

⁸ Mitigation Measure C3 is Mitigation Measure 5.6.A3 in the PEIR.

⁹ Mitigation Measure C4 is Mitigation Measure 5.6.A4 in the PEIR.

¹⁰ San Francisco Planning Department, *Planning Preliminary Archaeological Review 198 Valencia Street*. October 6, 2014.

and/or historic-era archaeological resources. Because the proposed project would require approximately 3,400 cubic yards of soil excavation (including soil removal) up to a depth of 14 feet below the ground surface, project ground-disturbing activities would have the potential to affect previously undocumented CRHR-eligible resources, were they to be present below the project site. Therefore, implementation of Mitigation Measure 1 – Archaeological Testing (Market and Octavia PEIR Mitigation Measure C2), listed in the Mitigation Measures section below, would reduce potential significant impacts of the proposed project to archaeological resources to a less-than-significant level.

For these reasons, the proposed project would not result in significant project-specific or cumulative impacts on archaeological resources that were not identified in the Market and Octavia 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>
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) 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"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) 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 Market and Octavia PEIR anticipated that growth resulting from the Market and Octavia Area Plan's zoning changes would not result in significant impacts related to pedestrians, bicyclists, loading, emergency access, or construction.

The Market and Octavia PEIR identified several significant traffic impacts at seven intersections, and one transit impact. In the vicinity of the proposed project, the Market and Octavia PEIR identified cumulatively considerable impacts at the intersections of Mission Street/Otis Street/South Van Ness Avenue (northeast of the project site), and at Hayes Street/Van Ness Avenue (northeast of the project

site).¹¹ The Market and Octavia PEIR identified a significant and unavoidable cumulative transit delay impact to the 21 Hayes route in the weekday PM peak hour. This impact was a result of the increased vehicle delay along Hayes Street from Van Ness Avenue to Gough Street due to the proposed reconfiguration of Hayes Street included in the *Market and Octavia Area Plan*.

The PEIR identified eight transportation mitigation measures—involving plan-level traffic management strategies; intersection and roadway improvements; and transit improvements—to be implemented by the Planning Department, SFPW, and SFMTA. The PEIR did not identify project-level transportation mitigation measures to be implemented by project sponsors for future development under the Market and Octavia Area Plan. The PEIR determined that, even with implementation of the identified plan-level mitigation measures, the significant adverse effects at seven intersections and the cumulative impacts on certain transit lines resulting from delays at several Hayes Street intersections could not be fully mitigated. These impacts were found to be significant and unavoidable.

As previously noted under “Senate Bill 743,” in response to state legislation that called for removing automobile delay from CEQA analysis, the Planning Commission adopted Resolution No. 19579 replacing automobile delay with a VMT metric for analyzing transportation impacts of a project. Therefore, impacts and mitigation measures from the Market and Octavia PEIR associated with automobile delay are not discussed in this checklist.

The Market and Octavia PEIR did not evaluate VMT or the potential for induced automobile travel. The VMT analysis and the Induced Automobile Travel analysis presented below evaluate the proposed project’s transportation effects using the VMT metric.

As discussed above, the *Market and Octavia Area Plan* would not result in significant impacts on pedestrians, bicyclists, loading, emergency access, or construction. The proposed project is within the scope of development projected under the *Market and Octavia Area Plan*, and there are no conditions that are specific to the project site or the proposed project that would result in additional impacts beyond those analyzed in the PEIR.

As discussed above, parking effects of the project are not to be considered significant impacts on the environment. The transportation analysis below accounts for potential secondary effects from a parking shortfall, such as drivers circling and looking for parking spaces 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 thus 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 project site 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.

¹¹ The Market and Octavia PEIR identified Market Street/Van Ness Avenue as an intersection that would operate unsatisfactorily in the future; however, the Market and Octavia Area Plan would not contribute a substantial number of vehicles to this intersection, and its impact was considered less than significant.

Vehicle Miles Traveled (VMT) Analysis

Many factors affect travel behavior. These factors include density, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development at great distance from other land uses, located in areas with poor access to non-private vehicular modes of travel, generate more automobile travel compared to development located in urban areas, where a higher density, mix of land uses, and travel options other than private vehicles are available.

Given these travel behavior factors, San Francisco has a lower VMT ratio than the nine-county San Francisco Bay Area region. In addition, some areas of the City have lower VMT ratios than other areas of the City. These areas of the City can be expressed geographically through transportation analysis zones. Transportation analysis zones are used in transportation planning models for transportation analysis and other planning purposes. The zones vary in size from single city blocks in the downtown core, multiple blocks in outer neighborhoods, to even larger zones in historically industrial areas like the Hunters Point Shipyard.

The San Francisco County Transportation Authority (Transportation Authority) uses the San Francisco Chained Activity Model Process (SF-CHAMP) to estimate VMT by private automobiles and taxis for different land use types. Travel behavior in SF-CHAMP is calibrated based on observed behavior from the California Household Travel Survey 2010-2012, Census data regarding automobile ownership rates and county-to-county worker flows, and observed vehicle counts and transit boardings. SF-CHAMP uses a synthetic population, which is a set of individual actors that represents the Bay Area's actual population, who make simulated travel decisions for a complete day. The Transportation Authority uses tour-based analysis for office and residential uses, which examines the entire chain of trips over the course of a day, not just trips to and from the project. For retail uses, the Transportation Authority uses trip-based analysis, which counts VMT from individual trips to and from the project (as opposed to entire chain of trips). A trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and the summarizing of tour VMT to each location would over-estimate VMT.^{12,13}

For residential development, the existing regional average daily VMT per capita is 17.2.¹⁴ For retail development, regional average daily retail VMT per employee is 14.9.¹⁵ Table 2 shows the Daily Vehicle Miles Traveled, which includes the transportation analysis zone, 242, in which the project site is located.

¹² To state another way: a tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, for example, a coffee shop on the way to work and a restaurant on the way back home, then both retail locations would be allotted the total tour VMT. A trip-based approach allows us to apportion all retail-related VMT to retail sites without double-counting.

¹³ San Francisco Planning Department, *Executive Summary: Resolution Modifying Transportation Impact Analysis*, Appendix F, Attachment A, March 3, 2016.

¹⁴ Includes the VMT generated by the households in the development.

¹⁵ Retail travel is not explicitly captured in SF-CHAMP, rather, there is a generic "Other" purpose which includes retail shopping, medical appointments, visiting friends or family, and all other non-work, non-school tours. The retail efficiency metric captures all of the "Other" purpose travel generated by Bay Area households. The denominator of employment (including retail; cultural, institutional, and educational; and medical employment; school enrollment, and number of households) represents the size, or attraction, of the zone for this type of "Other" purpose travel.

A project would have a significant effect on the environment if it would cause substantial additional VMT. The State Office of Planning and Research's (OPR) [Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA](#) ("proposed transportation impact guidelines") recommends screening criteria to identify types, characteristics, or locations of projects that would not result in significant impacts to VMT. If a project meets screening criteria, then it is presumed that VMT impacts would be less than significant for the project and a detailed VMT analysis is not required.

For residential development, the existing regional average daily household VMT per capita is 17.2, and the future 2040 regional average household VMT per capita is 16.1. For retail development, the existing regional average daily employee VMT per capita is 14.9, and the future 2040 regional average daily retail employee VMT per capita is 14.6.

Table 3: Daily Vehicle Miles Traveled

<u>Land Use</u>	<u>Existing</u>			<u>Cumulative 2040</u>		
	<u>Bay Area Regional Average</u>	<u>Bay Area Regional Average minus 15%</u>	<u>TAZ 242</u>	<u>Bay Area Regional Average</u>	<u>Bay Area Regional Average minus 15%</u>	<u>TAZ 242</u>
Households (Residential)	17.2	14.6	4.5	16.1	13.7	3.8
Employment (Retail)	14.9	12.6	8.9	14.6	12.4	9.1

The project site is in transportation analysis zone (TAZ) 242, and the proposed project would include 28 dwelling units and 6,295 square feet of ground-floor commercial space.

In TAZ 242, the existing average daily household VMT per capita is 4.5, and the existing average daily retail employee VMT per capita is 8.9. The TAZ 242 VMT averages are more than 15 percent below the existing regional VMT averages of 17.2 and 14.9, respectively, and the proposed project would not result in substantial additional VMT.

In TAZ 242, the future 2040 average daily household VMT per capita is 3.8, and the future 2040 average daily retail employee VMT per capita is 9.1. The TAZ 242 VMT averages are more than 15 percent below the future 2040 regional VMT averages of 16.1 and 14.6, respectively, and the proposed project would not result in substantial additional VMT.

Furthermore, the project site meets the Proximity to Transit Stations screening criterion, which also indicates the proposed project's residential and retail uses would not cause substantial additional VMT. For these reasons, the proposed project would not result in significant traffic impacts.

Induced Automobile Travel Analysis

A project would have a significant effect on the environment if it would substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network. OPR's proposed transportation impact guidelines includes a list of transportation project types that would not likely lead to a substantial or measureable increase in VMT. If a project fits within the general types of projects (including combinations of types), then it is presumed that VMT impacts would be less than significant and a detailed VMT analysis is not required.

The proposed project is not a transportation project. However, the proposed project would include features that would alter the transportation network. The two existing curb cuts on Valencia Street would be removed and one existing curb cut on Duboce Avenue would be relocated. The proposed project would also include the installation of Class II bicycle parking facilities on the sidewalk adjacent to the project site. These features fit within the general types of projects that would not substantially induce automobile travel, and the impacts would be less than significant.

Trip Generation

Trip generation of the proposed project was calculated using information in the *2002 Transportation Impacts Analysis Guidelines for Environmental Review* (Transportation Guidelines), developed by the San Francisco Planning Department.¹⁶ The proposed project would generate an estimated 1,180 person trips (inbound and outbound) on a weekday daily basis, consisting of an estimated 399 person trips by auto, 223 transit trips, 228 walk trips, and 47 trips by other modes. During the p.m. peak hour, the proposed project would generate an estimated 42 auto trips.

Transit

The project site is within a quarter mile of several local transit lines, including Muni Metro lines J, K, L, M, N, and T; streetcar line F, as well as Muni bus lines N Owl, 6, 14, 14L, 16X, 22, 33, 49, 71, and 71L. The proposed project would be expected to generate 223 daily transit trips, including 29 during the p.m. peak hour. Given the wide availability of nearby transit, the addition of 29 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 an increase in delays or operating costs such that significant adverse impacts in transit service could result.

As described above, the Market and Octavia PEIR identified significant and unavoidable cumulative transit delay impacts to the 21 Hayes route. The proposed project would not contribute considerably to these conditions as its contribution of 29 p.m. peak hour transit trips would not be a substantial proportion of the overall additional transit volume generated by Market and Octavia projects. The proposed project would also not contribute considerably to 2025 cumulative transit conditions and thus would not result in any significant cumulative transit impacts. For the above reasons, the proposed project would not result in significant project-specific impacts related to transit that were not identified in the Market and Octavia PEIR and would not contribute considerably to cumulative transit impacts that were identified in the Market and Octavia PEIR

¹⁶ San Francisco Planning Department, *Transportation Calculations for 198 Valencia Street*, May 17, 2016.

Pedestrians

The project site is adjacent to a sidewalk on Valencia Street and Duboce Avenue. Both of these streets are part of the City's Vision Zero High Injury Network. The proposed project would generate 52 PM peak-hour walk trips (that is, 23 PM peak-hour walk-trips and 29 PM peak-hour transit trips, which include walk trips). The proposed project would provide vehicular access to the new garage through a relocated and smaller, 11 foot curb cut on Duboce Avenue. The project would also remove two existing curb cuts on Valencia Street. Although the proposed project would result in an increase in the number of vehicles in the vicinity of the project site, this increase would not be substantial enough to create potentially hazardous conditions for pedestrians. Therefore, the project would not result in an increased amount of potentially hazardous conditions between pedestrians and vehicles entering and exiting the project site. The increase in daily pedestrian person-trips generated by the proposed project would not substantially overcrowd sidewalks in the project vicinity or otherwise interfere with pedestrian accessibility to the site and adjoining areas. In addition, the San Francisco Municipal Transportation Agency is working on Vision Zero improvements to the intersection at Duboce and Valencia Streets; including, signal timing upgrades and vehicle turn restrictions to help improve the safety of this intersection. Therefore, no significant impacts related to pedestrians would occur.

Bicycles

Valencia Street is designated as a bicycle route. Several bike routes are within a ¼ mile of the project site. The nearest routes are located on Valencia Street (adjacent to the project site), Market Street, McCoppin Street, and 14th Street. The proposed project would provide a total of 32 bicycle parking spaces. Twenty-eight Class I bicycle parking spaces would be provided in the subterranean garage with access from Duboce Avenue and two Class II bicycle parking spaces would be provided on Valencia Street and Duboce Avenue. The proposed project would generate 7 PM peak-hour other trips, including bicycle trips. The minimal increase of bicycle trips generated by the proposed project would be accommodated by the existing bicycle network and the proposed project would not create potentially hazardous conditions for bicyclists; therefore, no significant impacts related to bicyclists would occur.

Construction Traffic

Construction of the proposed project is expected to occur over the course of a 15-month period. During that time, it is anticipated that the majority of the construction-related truck traffic would use I-80, I-280, and U.S. 101 to access the project site from the East Bay, South Bay, and North Bay and from locations within the City. Due to the slower movement and larger turning radii of trucks, there would be a temporary reduction in the capacities of local streets. The addition of worker-related vehicle or transit trips would not substantially affect these roadways or local streets near the project site. Construction workers who drive to the site would cause a temporary increase in traffic volume and demand for on-street parking. Overall construction activities would result in a small incremental increase in traffic (worker vehicles and equipment) and only slightly reduce the availability of on-street parking during working hours. Construction related travel and parking lanes and sidewalk closures are subject to review and approval by the Transportation Advisory Staff Committee (TASC) an interdepartmental committee, including the Police, Public Works, Planning, and Fire Departments and SFMTA Muni Operations. TASC would review and address issues of circulation (traffic, pedestrians, and bicycle), safety, parking and other project construction activities in the area, including, but not limited to, any potential conflicts with the Cable Car lines prior to insurance of an encroachment permit. Therefore, there would be no significant construction-related traffic impacts.

For the above reasons, the proposed project would not result in significant project-specific impacts related to transportation that were not identified in the Market and Octavia PEIR and would not contribute considerably to cumulative transportation impacts that were identified in the Market and Octavia 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>
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"/>

Construction Impacts

The Market and Octavia PEIR noted that the background noise levels in San Francisco are elevated primarily due to traffic noise, and that some streets have higher background noise levels, such as Market Street. The PEIR identified an increase in the ambient noise levels during construction, dependent on the types of construction activities and construction schedules, and noise from increased traffic associated with construction truck trips along access routes to development sites. The PEIR determined that compliance with the San Francisco Noise Ordinance (Noise Ordinance) governed by Article 29 of the San Francisco Police Code would reduce construction impacts to less-than-significant levels. No mitigation measures related to noise from construction were identified in the Market and Octavia PEIR.

All construction activities for the proposed project (approximately 15 months) would be subject to and would comply with 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 A-weighted decibels (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 SFPW or the Director of 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 SFPW authorizes a special permit for conducting the work during that period.

DBI is responsible for enforcing the Noise Ordinance for private construction projects during the 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. Although pile-driving is not proposed, the installation of drilled displacement columns and soil-cement mixing columns could result in increased noise. Nonetheless, during the construction period for the proposed project of approximately 15 months, occupants of the nearby properties could be disturbed by construction noise. Times may occur when noise could interfere with indoor activities in nearby residences and other businesses near the project site and may be considered an annoyance by occupants of nearby properties. 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, as the contractor would be required to comply with the Noise Ordinance.

For the above reasons, implementation of the proposed project would not result in significant project-specific or cumulative construction impacts related to noise and vibration that were not identified in the PEIR, and no mitigation measures are necessary.

Operational Impacts

The PEIR noted that land use changes would have the potential for creating secondary noise impacts associated with fixed heating, ventilating or air-conditioning (HVAC) equipment or local noise-generating activities. The PEIR determined that existing ambient noise conditions in the Plan Area would generally mask noise from new on-site equipment. Therefore, the increase in noise levels from operation of equipment would be less than significant. The PEIR also determined that all new development in the Plan Area would comply with Title 24 of the California Code of Regulations (CCR) and with the Land Use Compatibility Guidelines for Community Noise of the General Plan,¹⁷ which would prevent significant impacts to sensitive receptors during project operations.

Ambient noise levels in San Francisco are largely influenced by traffic. An approximate doubling in traffic volumes in the area would be necessary to produce an increase in ambient noise levels barely perceptible to most people (3-dB increase). As described in Section 4, Transportation, the proposed project would generate 42 vehicle-trips during the p.m. peak-hour. Given existing traffic volumes in the project vicinity, the 42 vehicle-trips during the p.m. peak-hour would not double the traffic volumes on any given street in the area. Therefore, the proposed project would not result in a significant noise impacts from project-related traffic, and the proposed project would not contribute to a considerable increment or to any cumulative noise impacts related to traffic.

Existing ambient noise in the vicinity of the project site was assessed in the noise study completed for the proposed project.¹⁸ The noise environment at the project site is predominantly affected by vehicular

¹⁷ San Francisco Planning Department, *San Francisco General Plan, Environmental Protection Element, Policy 11.1, Land Use Compatibility Chart for Community Noise*, December 2004. Available at [www.sf-planning.org/ftp/general_plan/16 Environmental Protection.htm](http://www.sf-planning.org/ftp/general_plan/16%20Environmental%20Protection.htm).

¹⁸ Shen Milsom Wilke, Inc., 198 Valencia Street, Residential Development, San Francisco, California, *Environmental Noise Report SM&W Project #14431*, December 5, 2014.

traffic along Valencia Street and Duboce Avenue. Other sources of noises include local bars and restaurants, the elevated U.S. Highway 101, and pedestrian activity. Noise measurements were conducted at the project site between November 24, 2014, and November 25, 2014, to quantify the existing noise environment. The noise monitoring survey included a 24-hour equivalent continuous noise measurement on the roof of the existing oil change facility. The resulting 24-hour equivalent continuous noise level measurement at this location was a day-night sound level (DNL or L_{dn}) of 73.3 dB(A) L_{dn} .

Additional 15-minute spot measures were taken during the same time period to extrapolate the 24-hour noise levels to different locations on the project site. The resulting noise levels measured at 73.6 dB(A) L_{dn} on the ground-floor level at the corner of Valencia Street and Duboce Avenue; 69.0 dB(A) L_{dn} along Valencia Street, and 74.3 dB(A) L_{dn} along Duboce Avenue.

Based on expected implementation of the noise study recommendations, such as sound rated windows with minimum sound transmission ratings for the commercial and residential spaces, the proposed project would attain acceptable interior noise levels.¹⁹ During the review of the building permit, DBI would check project plans for compliance with applicable noise standards. Compliance with applicable noise standards would ensure that project-related impacts from exposure of building residents to ambient noise and project-related operational noise would result in less-than-significant impacts.

The proposed project would not include mechanical equipment such as backup generators that could produce operational noise. Therefore, noise impacts related to proposed project's operation would be less-than-significant. The proposed building would also not contribute to a considerable increment to any cumulative noise impacts related to noise from mechanical equipment.

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, checklist questions e and f above are not applicable.

For the above reasons, implementation of the proposed project would not result in significant project-specific or cumulative impacts related to noise and vibration that were not identified in the PEIR, 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>
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"/>

¹⁹ Ibid.

<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>
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 Market and Octavia PEIR identified potentially significant air quality impacts resulting from temporary exposure to elevated levels of fugitive dust and diesel particulate matter (DPM) during construction of development projects under the Area Plan. The Market and Octavia PEIR identified two mitigation measures that would reduce these air quality impacts to less-than-significant levels. Market and Octavia PEIR Mitigation Measure E-1 and E-2 address air quality impacts during construction. All other air quality impacts were found to be less than significant.

Construction Dust Control

Market and Octavia PEIR Mitigation Measure E-1 – Construction Mitigation Measure for Particulate Emissions requires individual projects involving construction activities to include dust control measures and to maintain and operate construction equipment to minimize exhaust emissions of particulates and other pollutants. The 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 in order to protect the health of the general public and of on-site workers, minimize public nuisance complaints, and to 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 contractor responsible for construction activities at the project site would be required to control construction dust on the site through a combination of watering disturbed areas, covering stockpiled materials, street and sidewalk sweeping and other measures.

The regulations and procedures set forth by the San Francisco Dust Control Ordinance would ensure that construction dust impacts would not be significant. These requirements supersede the dust control provisions of PEIR Mitigation Measure E-1, the portion of PEIR Mitigation Measure E-1 that addresses dust control and exhaust emissions are no longer applicable to the proposed project.

Criteria Air Pollutants

The Bay Area Air Quality Management District's (BAAQMD) *CEQA Air Quality Guidelines* (Air Quality Guidelines) provide screening criteria²⁰ 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. The proposed project includes the demolition of the existing one-story, 1,877 square foot oil change facility and surface parking lot and construction of a five-story, 71 foot-tall (including the 16 foot-tall elevator penthouse above the structural roof of a 55 foot-tall building), 33,795 gross square foot mixed-use building with 28 dwelling units, and 6,269 gross square feet of retail space on the project site. Based on the Air Quality Guidelines' screening criteria, the proposed project would meet the criteria for operational pollutant screening size for the operations of a low-rise residential use (451 dwelling units) and the criteria air pollutant screening size for the construction of a low-rise residential use (240 dwelling units).²¹ Therefore, the project would not have a significant impact related to criteria air pollutants, and a detailed air quality assessment is not required.

Health Risk

Subsequent to certification of the Market and Octavia PEIR, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes (Ordinance 224-14, effective December 8, 2014), generally referred to as Health Code Article 38: Enhanced Ventilation Required for Urban Infill Sensitive Use Developments. The purpose of Article 38 is to protect the public health and welfare by establishing an Air Pollutant Exposure Zone (APEZ) and imposing an enhanced ventilation requirement for all urban infill sensitive use development within the APEZ. The APEZ, as defined in Article 38, consists of areas that, based on modeling of all known air pollutant sources, exceed health protective standards for cumulative PM_{2.5} concentration and cumulative excess cancer risk. The APEZ incorporates health vulnerability factors and proximity to freeways. Projects within the APEZ, such as the proposed project, require special consideration to determine whether the project's activities would expose sensitive receptors to substantial air pollutant concentrations or add emissions to areas already adversely affected by poor air quality.

Construction

The project site is located within an identified APEZ; therefore, the ambient health risk to sensitive receptors from air pollutants is considered substantial. The proposed project would require heavy-duty off-road diesel vehicles and equipment during the anticipated 15-month construction period. Thus, Project Mitigation Measure 2 – Construction Air Quality has been identified to implement the portions of Market and Octavia PEIR Mitigation Measure E-2 related to exhaust emissions by requiring engines with higher emissions standards on construction equipment. Project Mitigation Measure 2 – Construction Air Quality would reduce DPM exhaust from construction equipment by 89 to 94 percent compared to

²⁰ Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2011.

²¹ Ibid.

uncontrolled construction equipment.²² Therefore, impacts related to construction health risks would be less than significant through implementation of Project Mitigation Measure 2 –Construction Air Quality. The full text of Project Mitigation Measure 2 – Construction Air Quality is provided in the Mitigation Measures Section below.

Siting Sensitive Land Uses

For sensitive use projects within the APEZ as defined by Article 38, such as the proposed project, the Ordinance requires that the project sponsor submit an Enhanced Ventilation Proposal for approval by DPH that achieves protection from PM_{2.5} (fine particulate matter) equivalent to that associated with a Minimum Efficiency Reporting Value 13 filtration. DBI will not issue a building permit without written notification from the Director of Public Health that the applicant has an approved Enhanced Ventilation Proposal.

In compliance Article 38, the project sponsor has submitted an initial application to DPH.²³ The regulations and procedures set forth by Article 38 would ensure that exposure to sensitive receptors would not be significant and impacts related to siting new sensitive land uses would be less than significant through compliance with Article 38.

Siting New Sources

The proposed project would not be expected to generate 100 trucks per day or 40 refrigerated trucks per day. The proposed project would not include backup diesel generators. Therefore, impacts related to new sources of health risk would be less than significant.

For the above reasons, Project Mitigation Measure 2 (implementing Market and Octavia PEIR Mitigation Measure E-2) is applicable to the proposed project and the project would not result in significant air quality impacts that were not identified in the PEIR.

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>
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"/>

²² PM emissions benefits are estimated by comparing off-road PM emission standards for Tier 2 with Tier 1 and 0. Tier 0 off-road engines do not have PM emission standards, but the United States Environmental Protection Agency's *Exhaust and Crankcase Emissions Factors for Nonroad Engine Modeling – Compression Ignition* has estimated Tier 0 engines between 50 hp and 100 hp to have a PM emission factor of 0.72 g/hp-hr and greater than 100 hp to have a PM emission factor of 0.40 g/hp-hr. Therefore, requiring off-road equipment to have at least a Tier 2 engine would result in between a 25 percent and 63 percent reduction in PM emissions, as compared to off-road equipment with Tier 0 or Tier 1 engines. The 25 percent reduction comes from comparing the PM emission standards for off-road engines between 25 hp and 50 hp for Tier 2 (0.45 g/bhp-hr) and Tier 1 (0.60 g/bhp-hr). The 63 percent reduction comes from comparing the PM emission standards for off-road engines above 175 hp for Tier 2 (0.15 g/bhp-hr) and Tier 0 (0.40 g/bhp-hr). In addition to the Tier 2 requirement, ARB Level 3 VDECSs are required and would reduce PM by an additional 85 percent. Therefore, the mitigation measure would result in between an 89 percent (0.0675 g/bhp-hr) and 94 percent (0.0225 g/bhp-hr) reduction in PM emissions, as compared to equipment with Tier 1 (0.60 g/bhp-hr) or Tier 0 engines (0.40 g/bhp-hr).

²³ Department of Public Health, *Application for Article 38 Compliance Assessment 2015*. 198 Valencia Street, February 12, 2015.

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
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 State CEQA Guidelines were amended in 2010 to require an analysis of a project's greenhouse gas (GHG) emissions on the environment. The Market and Octavia PEIR was certified in 2007 and, therefore did not analyze the effects of GHG emissions. In addition, the BAAQMD has prepared guidelines that provide methodologies for analyzing air quality impacts under CEQA, including the impact of GHG emissions. These guidelines are consistent with CEQA Guidelines Sections 15064.4 and 15183.5 which address the analysis and determination of significant impacts from a proposed project's GHG emissions and allow for projects that are consistent with a GHG reduction strategy to conclude that the project's GHG emissions are less than significant. The following analysis is based on BAAQMD and CEQA guidelines for analyzing GHG emissions. As discussed below, the proposed project would not result in any new significant impacts related to GHG emissions.

Proposed Project

San Francisco's *Strategies to Address Greenhouse Gas Emissions* ²⁴ presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's GHG reduction strategy in compliance with the BAAQMD and CEQA guidelines. These GHG reduction actions have resulted in a 23.3 percent reduction in GHG emissions in 2012 compared to 1990 levels,²⁵ exceeding the year 2020 reduction goals outlined in the BAAQMD's *Bay Area 2010 Clean Air Plan*,²⁶ Executive Order S-3-05,²⁷ and Assembly Bill 32 (also known as the Global Warming Solutions Act).^{28,29} In addition, San Francisco's GHG reduction goals are consistent with, or more aggressive than, the long-term goals established under Executive Orders S-3-05 and B-30-15.^{30,31} Therefore, projects that are consistent with San Francisco's GHG Reduction Strategy would not result in GHG emissions that would have a significant effect on the environment and would not conflict with state, regional, and local GHG reduction plans and regulations. The proposed project would increase the intensity of use of the site by introducing 28 dwelling units, and 6,295 square feet of commercial space, and 19 parking spaces to replace a 1,877 square foot oil change

²⁴ San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, November 2010. Available at http://sfmea.sfplanning.org/GHG_Reduction_Strategy.pdf, accessed March 3, 2016.

²⁵ ICF International, *Technical Review of the 2012 Community-wide GHG Inventory for the City and County of San Francisco*, January 21, 2015.

²⁶ Bay Area Air Quality Management District, *Clean Air Plan*, September 2010. Available at <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>, accessed March 3, 2016.

²⁷ Office of the Governor, *Executive Order S-3-05*, June 1, 2005. Available at <https://www.gov.ca.gov/news.php?id=18938>, accessed March 3, 2016.

²⁸ California Legislative Information, *Assembly Bill 32*, September 27, 2006. Available at http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf, accessed March 3, 2016.

²⁹ Executive Order S-3-05, Assembly Bill 32, and the Bay Area 2010 Clean Air Plan set a target of reducing GHG emissions to below 1990 levels by year 2020.

³⁰ Office of the Governor, *Executive Order B-30-15*, April 29, 2015. Available at <https://www.gov.ca.gov/news.php?id=18938>, accessed March 3, 2016. Executive Order B-30-15 sets a state GHG emissions reduction goal of 40 percent below 1990 levels by the year 2030.

³¹ San Francisco's GHG Reduction Goals are codified in Section 902 of the Environment Code and include: (i) by 2008, determine City GHG emissions for year 1990; (ii) by 2017, reduce GHG emissions by 25 percent below 1990 levels; (iii) by 2025, reduce GHG emissions by 40 percent below 1990 levels; and by 2050, reduce GHG emissions by 80 percent below 1990 levels.

facility and surface parking lot for seven vehicles. Therefore, the proposed project would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and residential and commercial operations that result in an increase in energy use, water use, wastewater treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

The proposed project would be subject to regulations adopted to reduce GHG emissions as identified in the GHG reduction strategy. As discussed below, compliance with the applicable regulations would reduce the project's GHG emissions related to transportation, energy use, waste disposal, wood burning, and use of refrigerants.

Compliance with the City's Transportation Sustainability Fee and bicycle parking requirements would reduce the proposed project's transportation-related emissions. These regulations reduce GHG emissions from single-occupancy vehicles by promoting the use of alternative transportation modes with zero or lower GHG emissions on a per capita basis.

The proposed project would be required to comply with the energy efficiency requirements of the City's Green Building Code, Stormwater Management Ordinance, Water Conservation and Irrigation Ordinances, and Energy Conservation Ordinance, which would promote energy and water efficiency, thereby reducing the proposed project's energy-related GHG emissions.³²

The proposed project's waste-related emissions would be reduced through compliance with the City's Recycling and Composting Ordinance, Construction and Demolition Debris Recovery Ordinance, and Green Building Code requirements. These regulations reduce the amount of materials sent to a landfill, reducing GHGs emitted by landfill operations. These regulations also promote reuse of materials, conserving their embodied energy³³ and reducing the energy required to produce new materials. Compliance with the City's Street Tree Planting requirements would serve to increase carbon sequestration. Other regulations, including those limiting refrigerant emissions and the Wood Burning Fireplace Ordinance would reduce emissions of GHGs and black carbon, respectively. Regulations requiring low-emitting finishes would reduce volatile organic compounds (VOCs).³⁴ Thus, the proposed project was determined to be consistent with San Francisco's GHG reduction strategy.³⁵

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. As such, the proposed project would result in a less-than-significant impact with respect to GHG emissions. For the above reasons, the proposed project would not result in significant impacts that were not identified in the Market & Octavia PEIR and not mitigation measures are necessary.

³² Compliance with water conservation measures reduce the energy (and GHG emissions) required to convey, pump and treat water required for the project.

³³ Embodied energy is the total energy required for the extraction, processing, manufacture and delivery of building materials to the building site.

³⁴ While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

³⁵ San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for 198 Valencia Street*, January 1, 2015.

<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>
WIND AND SHADOW —Would the project:				
a) Alter wind in a manner that substantially affects public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Wind

The Market and Octavia PEIR determined that new construction developed under the Area Plan, including new buildings and additions to existing buildings, could result in significant impacts related to ground-level wind hazards. Mitigation Measure B1 – Buildings in Excess of 85 Feet in Height³⁶ and Mitigation Measure B2 – All New Construction,³⁷ identified in the PEIR, require individual project sponsors to minimize the effects of new buildings developed under the Area Plan on ground-level wind, through site and building design measures. The Market and Octavia PEIR concluded that implementation of Mitigation Measure B1 and Mitigation Measure B2, in combination with existing San Francisco Planning Code requirements, would reduce both project-level and cumulative wind impacts to a less-than-significant level. PEIR Mitigation Measure B1 is not applicable to the proposed project, because the proposed project does not exceed a height of 85 feet. PEIR Mitigation Measure B2 is applicable to the proposed project. As discussed below, the project sponsor has fulfilled the requirements of PEIR Mitigation Measure B2.

A proposed project's wind impacts are directly related to its height, orientation, design, location, and surrounding development context. Based on wind analyses for other development projects in San Francisco, a building that does not exceed a height of 85 feet generally has little potential to cause substantial changes to ground-level wind conditions. At a height of 55 feet (71 feet at the building's tallest point), the proposed project would be similar in height to existing buildings further west along Duboce Avenue. The proposed building would be five stories. It would be about 15 feet taller than the adjacent building to the west, but any overhead winds that are intercepted by the top two stories of the proposed building would be redirected onto the roof of the adjacent building instead of downward to the sidewalk along Duboce Avenue. Furthermore, the project site is at the base of a hill. The upsloping terrain to the north and west amplifies the shelter from prevailing winds provided by existing structures further uphill.³⁸ Given its height, orientation, design, location, and surrounding development context, the proposed building has little potential to cause substantial changes to ground-level wind conditions adjacent to and near the project site.

For these reasons, the proposed project would not result in any significant project-specific or cumulative wind impacts that were not identified in the Market and Octavia PEIR.

³⁶ Mitigation Measure B1 is Mitigation Measure 5.5.B1 in the Market and Octavia PEIR.

³⁷ Mitigation Measure B2 is Mitigation Measure 5.5.B2 in the Market and Octavia PEIR.

³⁸ Donald Ballanti, *Wind and Comfort Analysis of the Proposed 198 Valencia Street Project, San Francisco*, June 29, 2015.

Shadow

San Francisco Planning Code Section 295 generally prohibits new structures above 40 feet in height that would cast additional shadows on open space under the jurisdiction of the San Francisco Recreation and Park Commission between 1 hour after sunrise and 1 hour before sunset, at any time of the year, unless that shadow would not result in a significant adverse effect on the use of the open space. Private open spaces that are required under the Planning Code as part of an individual development proposal are not subject to Section 295.

The Market and Octavia PEIR analyzed impacts to existing and proposed parks under the jurisdiction of the San Francisco Recreation and Park Commission, as well as the War Memorial Open Space and the United Nations Plaza, which are not under the commission's jurisdiction. The Market and Octavia PEIR found no significant shadow impact on Section 295 open space at the program or project level. For non-Section 295 parks and open space, the PEIR identified potential significant impacts related to new construction of buildings over 50 feet tall, and determined that Mitigation Measure A1 – Parks and Open Space not Subject to Section 295³⁹ would reduce, but may not eliminate, significant shadow impacts on the War Memorial Open Space and United Nations Plaza. Specifically, the PEIR noted that potential new towers at Market Street and Van Ness Avenue could cast new shadows on the United Nations Plaza, and that Mitigation Measure A1 would reduce, but may not eliminate, significant shadow impacts on the United Nations Plaza. The PEIR determined shadow impacts to United Nations Plaza could be significant and unavoidable.

The proposed project would construct a 55 foot-tall building (71 feet in height including the 16 foot-tall elevator penthouse above the structural roof); therefore, the Planning Department prepared a preliminary shadow fan analysis to determine whether the project would have the potential to cast new shadow on nearby parks.⁴⁰ The preliminary shadow fan analysis indicated that no properties under the control of the Recreation and Parks Department would be affected by the proposed project.

Although the project would not cast new shadow on any outdoor recreational facilities under the jurisdiction of the Recreation and Parks Department, a Shadow Analysis Report⁴¹ was prepared to evaluate potential shadow impacts on the SOMA West Dog and Skate Park, which is located approximately 150 feet to the southeast of the project site. The analysis confirmed that no parks and open spaces under the control of the San Francisco Recreation and Parks Department would receive any new shading from the project, however SOMA West Dog and Skate Park, would receive new shading by the project.

The SOMA West Dog and Skate Park was recently constructed and opened to the public in July of 2014 and is located partially beneath an elevated portion of the Central Freeway (US 101). The dog park is bounded by Valencia Street to the west and Stevenson Street to the east. The dog park is located on the southern edge of Block 3513, Lot 074, which it shares with a City of San Francisco surface parking lot and has a total parcel area of 21,500 square feet. The skate park is located on Block 3513, Lot 071 with a parcel area of 33,223 square feet and is bounded by Stevenson Street to the west and Otis Street to the east. Both are fenced, with daily hours of operation of 5:00 a.m. to midnight for the dog park and 9:00 a.m. to 9:00 p.m. for the skate park.

³⁹ Mitigation Measure A1 is Mitigation Measure 5.5.A2 in the Market and Octavia PEIR.

⁴⁰ San Francisco Planning Department, *Preliminary Shadow Fan*, January 6, 2015.

⁴¹ PreVision Design, *Shadow Analysis Report for the Proposed 198 Valencia Street Project*, June 10, 2015.

The dog park is comprised of two separated areas, a smaller section designed for little dogs and a longer, larger section intended for bigger dogs. Other park features include two water fountains, artificial grass and three fixed benches along with approximately 10 landscaped areas with shrubs, grasses, small trees and climbing vines ranging in height from 1 foot to 6 feet. The skateboard portion of the park is entirely paved and sculpted for use for skateboarders. There are six large circular freeway support pillars in the skateboard area covered by murals.

The analysis included both quantitative and qualitative elements in order to determine whether or not the proposed project would create new shadow in a manner that substantially affects outdoor recreational facilities or other public areas. The proposed project would result in new shadow falling on both sections of the park. The dog park would receive approximately 337,951 net new annual square-foot-hours (sfh) of shadow, increasing sfh of shadow by 1.07 percent above current levels, and resulting in a new cumulative annual total shading of 52.00 percent. The skate park would receive approximately 14,124 net new annual sfh of shadow, increasing sfh of shadow by 0.02 percent above current levels, and resulting in a new cumulative annual total shading of 70.67 percent. New shadow from the proposed project would occur within the dog park from late summer through mid-spring (August 17-April 25) in the later portions of the afternoon. At the skate park, new shadow would be present during two periods in the spring and fall (February 17 - May 2 and again August 10 - October 24) also in the later portions of the afternoon. New shadow would occur on grassy areas throughout the small dog play area as well as portions of the larger dog play area, and at various times fall on two fixed benches. At the skate park, new shading would occur on portions of the western skate area.

The SOMA West Dog and Skate Park were constructed in an area that experiences substantial shading by the Central Freeway. Annual total shading under existing conditions is 16,115,115 sfh (50.93 percent) at the dog park and 55,277,651 sfh (70.65 percent) at the skate park. Because it was constructed in an area that is shaded most of the time, it is reasonable to conclude that the use and enjoyment of this park is not dependent on access to sunlight. Thus, the proposed project's incremental contribution to shadow at the SOMA West Dog and Skate Park would not substantially affect the use and enjoyment of this outdoor recreation facility.

The Preliminary Shadow Fan and the Shadow Analysis Report indicate that surrounding properties may receive some additional new shadow by the proposed project, including adjacent neighborhood's rear yards and the patio of the Zeitgeist bar. Portions of adjacent neighborhoods rear yards on Duboce Avenue would receive some new shading during the morning and afternoon (6:48 a.m. to 12:00 p.m.) of the summer solstice, during the morning and afternoon of the vernal/autumnal equinox (7:58 a.m. to 12:00 p.m.), and during the morning and afternoon of the winter solstice (8:22 a.m. to 12:00 p.m.). The Zeitgeist patio would receive some new shading during the evening of the summer solstice (6:00 p.m. to 7:00 p.m.) and during the evening of the vernal/autumnal equinox (5:00 p.m. to 6:06 p.m.). While shadow on private property may be a concern to nearby neighbors, it is not considered a significant impact under CEQA. Therefore, the proposed project would not have any significant impacts related to shadow.

For the above reasons, the proposed project would not result in significant project-specific or cumulative impacts related to shadow that were not identified in the Market and Octavia 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>
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 Market and Octavia PEIR concluded that implementation of the Area Plan would not result in substantial or accelerated deterioration of existing recreational resources or require the construction or expansion of recreational facilities that may have an adverse effect on the environment. No mitigation measures related to recreational resources were identified in the Market and Octavia PEIR.

The proposed project would have approximately 2,590 square feet of common open space on the roof terrace for the proposed residential uses and would provide 2,100 square feet of private open space. Because it would not degrade recreational facilities, and would be within the scope of development projected under the Market and Octavia Area Plan, the proposed project would not result in any significant project-specific or cumulative impacts on recreational resources beyond those analyzed in the Market and Octavia 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>
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"/>

<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>
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 Market and Octavia PEIR determined that the anticipated increase in population 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 (28 residential units and approximately 6,269 gross square feet of ground-floor commercial space) would be within the scope of development projected under the Market and Octavia Area Plan, there would be no additional project-specific or cumulative impacts on utilities and service systems beyond those analyzed in the Market and Octavia 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>
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 Market and Octavia PEIR determined that the anticipated increase in population 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 (28 residential units and approximately 6,269 gross square feet of ground-floor commercial space) would be within scope of the development projected under the Market and Octavia Area Plan, there would be no additional project-specific or cumulative impacts on public services beyond those analyzed in the Market and Octavia 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>
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 described in the Market and Octavia PEIR, the Market and Octavia Area Plan is in a developed urban environment completely covered by structures, impervious surfaces, and introduced landscaping. No known, threatened, or endangered animal or plant species are known to exist in the project vicinity that could be affected by the development anticipated under the Area Plan. In addition, development envisioned under the Market and Octavia 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.

The project site is entirely covered with an existing building and a paved parking lot. The site contains no special-status plant or wildlife species and no native habitat. As such, the proposed project would have no impact on biological resources. The proposed project would be within the scope of development projected under the Market and Octavia Area Plan and would not result in any project-specific or cumulative impacts on biological resources that were not identified in the Market and Octavia 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>
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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Change substantially the topography or any unique geologic or physical features of the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR did not identify any significant operational impacts related to geology, soils, and seismicity. Although the PEIR concluded that implementation of the Area Plan would indirectly increase the population that would be subject to an earthquake, including seismically induced ground-shaking, liquefaction, and landslides, the PEIR noted that new development is generally safer than comparable older development due to improvements in building codes and construction techniques. Compliance with applicable codes and recommendations made in project-specific geotechnical analyses would not eliminate earthquake risks, but would reduce them to an acceptable level, given the seismically active characteristics of the Bay Area.

The Market and Octavia PEIR identified a potential significant impact related to soil erosion during construction. The PEIR found that implementation of Mitigation Measure G1 – Construction Related Soils Mitigation Measure,⁴² which consists of construction best management practices (BMPs) to prevent erosion and discharge of soil sediments to the storm drain system, would reduce any potential impacts to a less-than-significant level.

⁴² Mitigation Measure G1 is Mitigation Measure 5.11.A in the Market and Octavia PEIR.

Subsequent to certification of the Market and Octavia PEIR, the Board of Supervisors amended the San Francisco Public Works Code adding Section 146, Construction Site Runoff Control⁴³, and Section 147, Stormwater Management⁴⁴. Section 146.3 requires any person performing *land disturbing activities*⁴⁵ to implement and maintain BMPs as necessary to minimize surface runoff erosion and sedimentation. In addition, Section 146.5 requires projects disturbing 5,000 square feet or more of ground surface to obtain a Construction Site Runoff Control Permit from the SFPUC and to implement an Erosion and Sediment Control Plan that includes BMPs to prevent stormwater runoff and soil erosion during construction. Section 147.2 requires projects disturbing 5,000 square feet or more to implement a Stormwater Control Plan that meets the requirements of the SFPUC's Stormwater Design Guidelines. (Projects on Port of San Francisco property must meet the Port's stormwater guidelines.) Public Works Code Sections 146 and 147 supersede Market and Octavia PEIR Mitigation Measure G1.

Because the proposed project would involve land disturbing activities, the construction contractor is required to implement and maintain BMPs as necessary to minimize surface runoff erosion and sedimentation pursuant to Section 146.3. In addition, since it would disturb more than 5,000 square feet of ground surface, the proposed project is subject to the Section 146.5 Construction Site Runoff Control Permit and Section 147.2 Stormwater Control Plan requirements described above. Compliance with these requirements would ensure that the proposed project would not have a significant impact relate to soil erosion that was not identified in the Market and Octavia PEIR.

A geotechnical investigation was prepared for the proposed project.⁴⁶ The following discussion relies on the information provided in the geotechnical report.

The topography in the vicinity of the site slopes downward toward the southeast at an average inclination of approximately 30:1 (horizontal: vertical). For the geotechnical investigation, a soil boring near the northwest corner of the project site was excavated to a maximum depth of approximately 51.5 feet below the ground surface. Based on the soil analysis of the boring, the project site is generally underlain by medium dense to very dense, silty soil. The soil appears medium dense at a depth of about five feet and medium dense to very dense below 20 feet. Dense to very dense, silty sand was encountered from a depth of about 40 feet to 51.5 feet be four to 15 feet thick beneath the project site and is underlain by medium dense to very dense sand, commonly referred to as dune sand. The dune sand extends to depths of 23 to 53 feet below the ground surface. Groundwater at the project site was measured at a depth of 26 feet below the ground surface at the time of the investigation. However, the recorded depths are not considered the stabilized groundwater table, and are expected to vary several feed annually, depending upon rainfall.

The project site does not lie within an Alquist-Priolo Earthquake Fault Zone as defined by the California Division of Mines and Geology. No known active faults cross the project site. The closest mapped active fault in the vicinity of the project site is the San Andreas Fault, located approximately 6.8 miles southwest of the site. However, like the entire San Francisco Bay Area, the project site is subject to strong ground

⁴³ Added by Ord. 260-13, File No. 130814, App. 11/14/2013, Eff. 12/14/2013.

⁴⁴ Added by Ord. 83-10, File No. 100102, 4/22/2010.

⁴⁵ Pursuant to Public Works Code Section 146.1, *land-disturbing activities* is defined as any movement of earth or a change in the existing soil cover or existing topography that may result in soil erosion from wind, or water, and the movement of sediments into or upon waters, lands, or public rights-of-way within the City and County of San Francisco, including, but not limited to building demolition, clearing, grading, grubbing, filling, stockpiling, excavating and transporting of land.

⁴⁶ H. Allen Gruen, *Report Geotechnical Investigation – Planned Development at 198 Valencia Street, San Francisco, California*. February 8, 2014.

shaking during an earthquake. The project site is located within a potentially liquefiable area as indicated in the State of California Hazard Zones, City and County of San Francisco Official Map.⁴⁷ Based on the project site conditions, a quantitative liquefaction analysis was performed and determined that the potential for liquefaction is low. In addition, there is a low risk of damage to the improvements from seismically induced lateral spreading and the magnitude of settlement would be less than one-inch.

The geotechnical investigation provided recommendations for the proposed project's site preparation and grading, foundation design, and recommends that the proposed 198 Valencia Street building be supported on a stiffened mat foundation. Underpinning may be required where excavations extend downward and outward from the edge of the existing footings or improvements. Drilled, reinforced concrete piers may be used for shoring excavation walls and underpinning adjacent improvements during construction. The geotechnical investigation concluded that the proposed project would not cause significant geological or soil impacts if recommendations in the geotechnical investigation are implemented. The project sponsor has agreed to follow the recommendations of the geotechnical investigation and incorporated them into the final building design, subject to the building review process by DBI.

The final building plans would be reviewed by DBI. In reviewing building plans, DBI refers to a variety of information sources to determine existing hazards. Sources reviewed include maps of Special Geologic Study Areas and known landslide areas in San Francisco as well as the building inspectors' working knowledge of areas of special geologic concern. DBI will review the geotechnical report and building plans for the proposed project to determine the adequacy of the proposed engineering and design features and to ensure compliance with all applicable San Francisco Building Code provisions regarding structural safety. The above-referenced geotechnical investigation report would be available for use by DBI during its review of building permits for the project site. In addition, DBI could require that additional site-specific soil report(s) be prepared in conjunction with permit applications, as needed. Implementation of the recommendations in the geotechnical report, in combination with the requirement for a geotechnical report and the review of the building permit application pursuant to the DBI's implementation of the Building Code would minimize the risk of loss, injury, or death due to seismic or other geologic hazards.

For these reasons, the proposed project would not result in significant project-specific or cumulative impacts related to geology and soils that were not identified in the Market and Octavia 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>
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"/>

⁴⁷ City and County of San Francisco, Map of State of California Division of Mines and Geology, 2000. Seismic Hazard Zones, November 17, 2000. <http://www.sfgsa.org/modules/showdocument.aspx?documentid=10438>, accessed December 19, 2014.

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
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 Market and Octavia PEIR determined that the anticipated increase in population as a result of implementation of the Area 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. Groundwater encountered during construction would be required to be discharged in compliance with the City's Industrial Waste Ordinance (Ordinance Number 199-77), and would meet specified water quality standards. No mitigation measures were identified in the PEIR.

The project site is occupied by an oil change facility and a surface parking lot, and is completely covered by impervious surfaces. Overall, runoff and drainage would not be substantially changed with the proposed project. Runoff from the project site would drain into the City's combined stormwater/sewer system, ensuring that such runoff is properly treated at the Southeast Water Pollution Control Plant before being discharged into the San Francisco Bay. In accordance with the City's Stormwater Management

Ordinance (Ordinance No. 83-10), the proposed project would be subject to Low Impact Design (LID) approaches and stormwater management systems to comply with the Stormwater Design Guidelines. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or substantially increase the rate or amount of surface runoff in a manner that would result in flooding or in substantial erosion or siltation, nor would it exceed the capacity of existing or planned stormwater drainage systems. As a result, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. Furthermore, the proposed project would be constructed in compliance with all applicable federal, state, and local regulations governing water quality and discharges to surface- and groundwater bodies.

During the geotechnical investigation, groundwater was encountered at a depth of approximately 26 feet on the project site.⁴⁸ The proposed project would entail up to 14 feet of subsurface excavation, and therefore it is but unlikely that groundwater would be encountered during excavation. Any groundwater that is encountered during construction would be subject to requirements of the City's Sewer Use Ordinance (Ordinance Number 19-92, amended 116-97), as supplemented by SFPW Order No. 158170, requiring a permit from the Wastewater Enterprise Collection System Division of the SFPUC. A permit may be issued only if an effective pretreatment system is maintained and operated. Each permit for such discharge shall contain specified water quality standards and may require the project sponsor to install and maintain meters to measure the volume of the discharge to the combined sewer system. Project-related effects from lowering the water table due to dewatering, if any, would be temporary and would not be expected to substantially deplete groundwater resources. As a result, the proposed project would not deplete groundwater supplies or substantially interfere with groundwater recharge.

Development in the City and County of San Francisco must account for flooding potential. Areas located on fill or bay mud can subside to a point at which the sewers do not drain freely during a storm (and sometimes during dry weather) and there can be backups or flooding near these streets and sewers. The proposed project does not fall within an area in the City prone to flooding during storms.

For the reasons discussed above, the proposed project would not result in significant project-specific or cumulative impacts on hydrology and water quality that were not identified in the Market and Octavia PEIR, and no mitigation measures are necessary.

<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>
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"/>

⁴⁸ H. Allen Gruen, *Report Geotechnical Investigation – Planned Development at 198 Valencia Street, San Francisco, California*, September 16, 2015.

<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>
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"/>
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 Market and Octavia PEIR found that impacts to hazardous materials would primarily originate from construction-related activities. Demolition or renovation of existing buildings could result in exposure to hazardous building materials such as asbestos, lead, mercury or polychlorinated biphenyls (PCBs). In addition, the discovery of contaminated soils and groundwater at the site could result in exposure to hazardous materials during construction. The Market and Octavia PEIR identified a significant impact associated with soil disturbance during construction for sites in areas of naturally occurring asbestos (NOA). The PEIR found that compliance with existing regulations; and implementation of Mitigation Measure F1 – Program or Project Level Mitigation Measures for Hazardous Materials,⁴⁹ which would require implementation of construction BMPs to reduce dust emissions; and tracking of contaminated soils beyond the site boundaries, by way of construction vehicles tires would reduce impacts associated with construction-related hazardous materials to a less-than-significant level.

As discussed under Air Quality, subsequent to the certification of the Market and Octavia PEIR, the San Francisco Board of Supervisors 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 regulations and procedures set forth by the San Francisco Dust Control Ordinance would ensure that construction dust impacts would not be significant. These requirements supersede the dust control provisions of Market and Octavia PEIR Mitigation Measure F1. In addition, construction activities in areas containing NOA are subject to regulation under the State Asbestos Airborne Toxic Control Measures (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, which is implemented in San Francisco by BAAQMD. Compliance with the Asbestos ATCM would ensure that the proposed project would not create a significant hazard to the public or the

⁴⁹ Mitigation Measure F1 is Mitigation Measure 5.10.A in the Market and Octavia PEIR.

environment from the release of NOA. Therefore, PEIR Mitigation Measure F1 is not applicable to the proposed project.

During operations, the Market and Octavia PEIR found that businesses that use or generate hazardous substances (cleaners, solvents, etc.), would be subject to existing regulations that would protect workers and the community from exposure to hazardous materials during operations. In addition, compliance with existing building and fire codes would reduce fire hazards, emergency response, and evaluation hazards to a less-than-significant level.

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 may include asbestos, lead-based paint, and PCBs, universal waste and other hazardous building materials such as fluorescent light bulbs and ballasts, as well as batteries and mercury switches in thermostats.

Asbestos is a common material previously used in buildings, and sampling of suspected asbestos-containing material prior to demolition is required by the BAAQMD to obtain a demolition permit. If asbestos is identified, it must be abated in accordance with applicable laws prior to construction or renovation. Pursuant to state law, the DBI will not issue a permit for the proposed project until compliance with regulations is completed.

Lead-based paint and PCB-containing materials could also be encountered as a result of dust-generating activities that include removal of walls and material disposal during project construction. Compliance with Chapter 36 of the San Francisco Building Code would ensure no adverse effects due to work involving lead paint. PCB-containing materials must be managed as hazardous waste in accordance with Occupational Safety and Health Administration worker protection requirements.

The existing building on the project site was constructed in 1994. Therefore, asbestos-containing materials and lead paint are not likely to be found within the building. The proposed project would be required to comply with all applicable requirements and would not result in any significant impacts related to hazardous materials that were not identified in the Market and Octavia PEIR.

Soil and Groundwater Contamination

The proposed project would entail approximately 3,400 cubic yards of soil excavation (including soil removal) up to a depth of 14 feet below the ground surface at the project site and the project is currently an existing oil-change facility. Therefore, the project is subject to Article 22A of the Health Code, also known as the Maher Ordinance, which is administered and overseen by DPH. 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. The Phase I ESA would determine the potential for site contamination and level of exposure risk associated with the project. Based on that information, the project sponsor may be required to conduct soil and/or ground water sampling and analysis. Where such analysis reveals the presence of hazardous substances in excess of state or federal standards, the project sponsor is required to submit a site mitigation plan (SMP) to 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.

In compliance with the Maher Ordinance, the project sponsor has submitted a Maher Application to DPH.⁵⁰ As part of the Maher Application Requirements, a Phase I ESA⁵¹, Work Plan for Site Investigation⁵², and a Phase II⁵³ ESA have been prepared to assess the potential for site contamination. The proposed project would be required to remediate potential soil and/or groundwater contamination at the project site, as described above, in accordance with Article 22A of the Health Code. With the required remediation, the proposed project would not result in any significant project-specific or cumulative impacts related to the release of hazardous materials that were not identified in the Market and Octavia PEIR and no mitigation measures are necessary.

Emergency Response and Fire

In San Francisco, fire safety is ensured through the provisions of the Building Code and the San Francisco Fire Code. During the review of the building permit application, DBI and the San Francisco Fire Department will review the project plans for compliance with all regulations related to fire safety. Compliance with fire safety regulations would ensure that the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, or expose people or structures to a significant risk of loss, injury, or death involving fires.

For these reasons, the proposed project would not result in any significant project-specific or cumulative impacts related to hazards or hazardous materials that were not identified in the Market and Octavia PEIR, and no mitigation measures are necessary.

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
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 imported 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"/>

⁵⁰ Department of Public Health, *Subsurface Investigation Workplan Approval, Residential and Commercial Development*, 198 Valencia Street, San Francisco, CA 94102, EHB-SAM No. 1034, September 15, 2014.

⁵¹ Partner Engineering and Science, Inc., *Phase I Environmental Site Assessment Report, Oil Changer*, 198 Valencia Street, San Francisco, California, 9410, January 31, 2014.

⁵² Department of Public Health, *Subsurface Investigation Workplan Approval, Residential and Commercial Development*, 198 Valencia Street, San Francisco, CA 94102, EHB-SAM No. 1034, September 15 2014.

⁵³ Partner Engineering and Science, Inc., *Subsurface Investigation Report, Oil Changer*, 198 Valencia Street, San Francisco, California, 94013, October 28, 2014.

The Market and Octavia PEIR did not analyze the effects on mineral resources and no mitigation measures were identified. The project site includes an existing on-site oil change facility and surface parking lot and is located within the Plan Area analyzed under the Market and Octavia PEIR. The Market and Octavia Plan Area does not include any natural resources routinely extracted.

The Market and Octavia PEIR determined that the Area Plan would facilitate the construction of both residential and commercial uses. Development of these uses would not result in use of large amounts of water, gas, and electricity 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 CCR, enforced by DBI. Therefore, the proposed project would not result in any significant project-specific or cumulative impacts related to the use of fuel, water, or energy in a wasteful manner, and no mitigation measures are necessary.

<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>
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 uses, 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 fore 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 environmental 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 Market and Octavia PEIR did not analyze the effects on agricultural and forest resources and no mitigation measures were identified.

The project site includes an existing one-story, oil change facility and surface parking lot and is located within the Plan Area analyzed under the Market and Octavia PEIR. No agricultural uses, forest land, or timberland exist at the project site. For the above reasons, the proposed project would not result in significant project-specific or cumulative impacts that were not identified in the Market and Octavia FEIR related to agricultural and forest resources.

MITIGATION MEASURES

Project Mitigation Measure 1 – Archaeological Testing (Market and Octavia PEIR Mitigation Measure C2)

Based on a reasonable presumption that archaeological resources may be present on 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 Planning 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 at the direction of the ERO. 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 site⁵⁴ associated with descendant Native Americans, the Overseas Chinese, or other descendant group, an appropriate representative⁵⁵ 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 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 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

⁵⁴ The term "archaeological site" is intended to minimally include any archaeological deposit, feature, burial, or evidence of burial.

⁵⁵ An "appropriate representative" of the descendant group is defined, in the case of Native Americans, as 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 Planning Department archaeologist.

archaeological consultant finds that significant archaeological resources may be present, the ERO, in consultation with the archaeological consultant, shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. No archaeological data recovery shall be undertaken without the prior approval of the 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, 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 AMP reasonably prior to the commencement of any project-related soils-disturbing activities. The ERO, in consultation with the archaeological consultant, shall determine which 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.), or site remediation 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.

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 accordance 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. 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 De-accession Policy. Description of and rationale for field and post-field discard and de-accession 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) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, 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 a Draft Final Archaeological Resources Report (FARR) to the ERO 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 Northwest Information Center (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 2 – Construction Air Quality (Mitigation Measure E2 of the Market and Octavia PEIR)

The project sponsor or the project sponsor's Contractor shall comply with the following:

A. Engine Requirements.

1. All off-road equipment greater than 25 hp and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed either U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards, and have been retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off-road emission standards automatically meet this requirement.
2. Where access to alternative sources of power are available, portable diesel engines shall be prohibited.
3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the two minute idling limit.
4. The Contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacture specifications.

B. Waivers.

1. The Planning Department's Environmental Review Officer or designee (ERO) may waive the alternative source of power requirement of Subsection (A)(2) if an alternative source of power is limited

or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit documentation that the equipment used for onsite power generation meets the requirements of Subsection (A)(1).

2. The ERO may waive the equipment requirements of Subsection (A)(1) if: a particular piece of off-road equipment with an ARB Level 3 VDECS is technically not feasible; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or, there is a compelling emergency need to use off-road equipment that is not retrofitted with an ARB Level 3 VDECS. If the ERO grants the waiver, the Contractor must use the next cleanest piece of off-road equipment, according to Table below.

Table – Off-Road Equipment Compliance Step-down Schedule

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2	ARB Level 2 VDECS
2	Tier 2	ARB Level 1 VDECS
3	Tier 2	Alternative Fuel*

How to use the table: If the ERO determines that the equipment requirements cannot be met, then the project sponsor would need to meet Compliance Alternative

1. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the Contractor must meet Compliance Alternative 2. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the Contractor must meet Compliance Alternative 3.

** Alternative fuels are not a VDECS.

C. Construction Emissions Minimization Plan. Before starting on-site construction activities, the Contractor shall submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and approval. The Plan shall state, in reasonable detail, how the Contractor will meet the requirements of Section A.

1. The Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For VDECS installed, the description may include: technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date and hour meter reading on installation date. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel being used.

2. The ERO shall ensure that all applicable requirements of the Plan have been incorporated into the contract specifications. The Plan shall include a certification statement that the Contractor agrees to comply fully with the Plan.

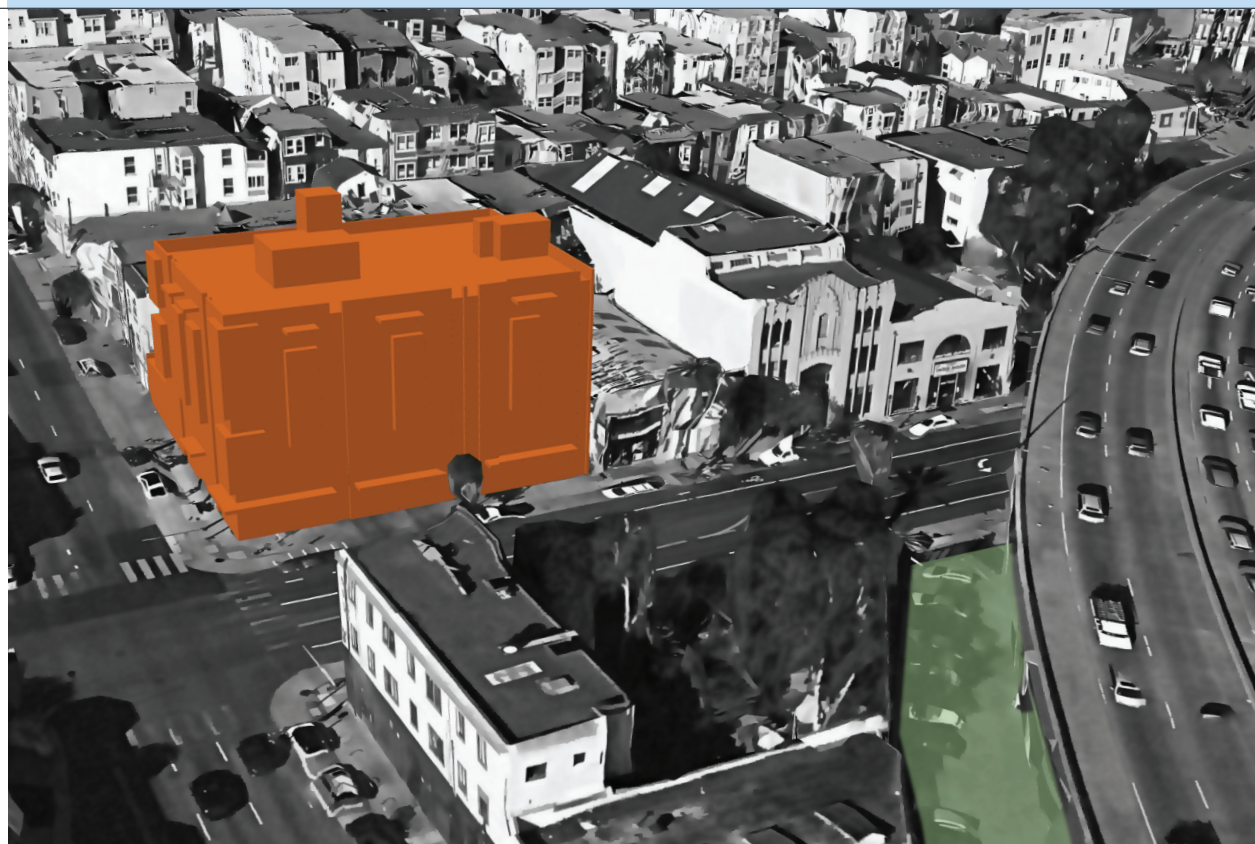
3. The Contractor shall make the Plan available to the public for review on-site during working hours. The Contractor shall post at the construction site a legible and visible sign summarizing the Plan. The sign shall also state that the public may ask to inspect the Plan for the project at any time during working hours and shall explain how to request to inspect the Plan. The ERO shall review and approve The Contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.

D. *Monitoring*. After start of Construction Activities, the Contractor shall submit quarterly reports to the ERO documenting compliance with the Plan. After completion of construction activities and prior to receiving a final certificate of occupancy, the project sponsor shall submit to the ERO a final report summarizing construction activities, including the start and end dates and duration of each construction phase, and the specific information required in the Plan.



JUNE 10, 2015
FINAL

SHADOW ANALYSIS REPORT FOR THE PROPOSED 198 VALENCIA STREET PROJECT



FROM:
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PRINCIPAL
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EXECUTIVE SUMMARY

This report describes the results of an analysis conducted by PreVision Design to identify the potential shadow effects on SOMA West Dog & Skate Park that would be caused by construction of a five-story 55-foot-tall, 26,743 sf mixed-used commercial/residential building proposed by Valencia Duboce LLC at 198 Valencia Street (“the proposed project” or “198 Valencia Street”) in the Mission neighborhood of San Francisco.

The purpose of this analysis is to inform decision makers as to potential significance of the proposed project’s shading impacts on nearby public parks and publicly accessible open spaces as part of the broader environmental analysis under the California Environmental Quality Act (CEQA).

The analysis found that the proposed project would cast new shadow on the SOMA West Dog & Skate Park. On the dog park portion, new shading would represent an increase of 1.07% in annual square-foot-hours (sfh) over current levels of shading (50.93%), resulting in a new total annual shading on the dog park of 52.00%. On the skate area, new shading would represent an increase of 0.02% in annual square-foot-hours (sfh) over current levels of shading (70.65%), resulting in a new total annual shading on the skate area of 70.67%.

The new shadow generated by the proposed project would be present in the dog park area from late summer through mid-spring (August 17-April 25) in the later portions of the afternoon. At the skate park, new shadow would be present during two periods in the spring and fall (February 17 - May 2 and again August 10 - October 24) also in the later portions of the afternoon. The annual extents of new project shading would impact the grassy dog play areas, two fixed benches, and some portions of the western skate park area. The aggregated extents of all new shading throughout the year is shown in Exhibit A, and snapshots of shading conditions at the Summer Solstice (June 21), Vernal and Autumnal Equinoxes (March 20 /September 22), Winter Solstice (December 21), and Day(s) of Maximum Shading (Jan 12/Nov 29 & March 15/ September 27) are shown in Exhibits B through E, respectively.

In order to evaluate how new shading might affect existing patterns of park use, PreVision Design conducted six site visits to the park on various days of the week at differing times of day to record the number of users and observe the nature and intensity of park use. It was observed dog park usage was relatively consistent with 3-9 users plus their pets. Users were often active their dogs while 2-3 users were occupying the 3 fixed benches. The observed intensity of the skate park area use varied from 7-32 users skateboarding throughout the entire area, with a smaller portion, 6-8 users, sitting and observing along the northern and western edges of the park. ■

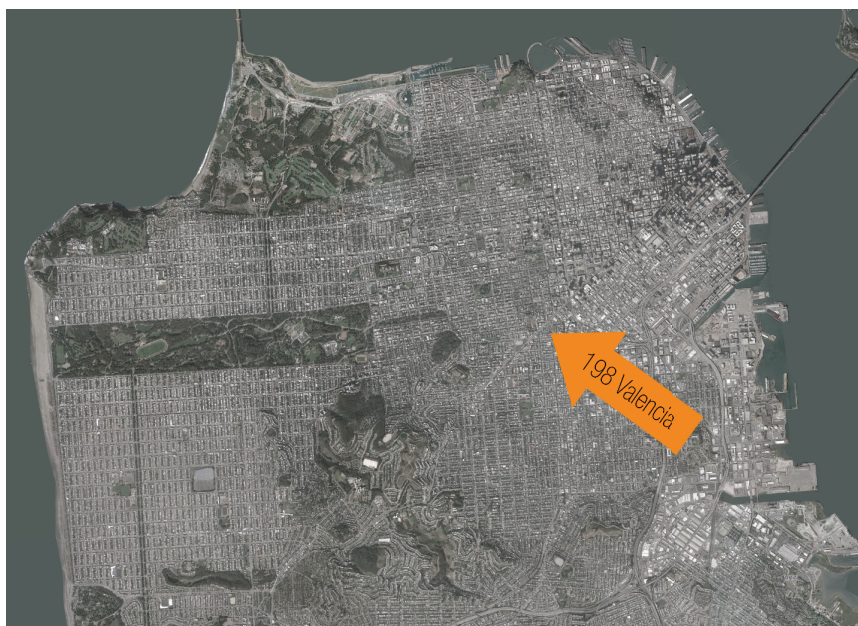


I. INTRODUCTION AND OVERVIEW

This report describes the results of an analysis conducted by PreVision Design to identify the shadow effects that would be caused by the proposed construction of a five-story residential project at 198 Valencia Street (“the proposed project” or “198 Valencia Street”) on SOMA West Dog & Skate Park (“the park”), a public park under the jurisdiction of the San Francisco Public Works Department. The project sponsor is Valencia Duboce LLC, and the project architect is Sternberg Benjamin Architects.

The purpose of this analysis is to inform decision makers as to potential significance of the proposed project’s shading impacts on nearby public parks and publicly-accessible open spaces as part of the broader environmental analysis under the California Environmental Quality Act (CEQA). PreVision Design has been directed by San Francisco Planning to utilize the analysis methodology for local shadow analysis as stipulated by Section 295 of the San Francisco Planning code for the purposes of CEQA shading review. Section 295 methodology establishes quantitative and qualitative criteria for evaluating shading impacts on parks and open spaces under the jurisdiction of the San Francisco Recreation and Parks Department (RPD), and no affected open spaces are under RPD jurisdiction, Section 295 analysis methodology has also been used to analyze shading impacts under CEQA on non-RPD public open spaces.

This report includes a discussion of all criteria factored into the analysis: quantitative and qualitative reporting of new shadow generated by the project (including graphical detail of the location and extent of the project’s shading). This report does not present opinions nor conclusions about whether or not the shadow from the proposed project would or should be considered significant/insignificant or acceptable/unacceptable. These determinations shall be made by the San Francisco Planning Commission. ■



Orange square: Proposed Project at 198 Valencia

Green hatched area: Parks and Open Spaces

① SOMA West Dog Park

② SOMA West Skate Park

NOTE: Portions of parks located beneath elevated central freeway shown hatched.

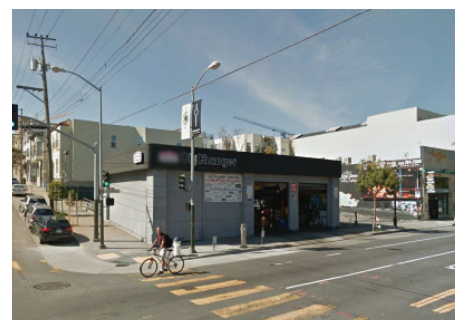
FIGURE 1: Area Map



FIGURE 2: Project context and massing

II. PROPOSED PROJECT

The proposed project will be located on a 9000 sf lot in the Mission neighborhood of San Francisco at the corner of Valencia and Duboce Streets on Assessor's Block 3502/ Lot 108. Figure 1 shows the location of the proposed project, Figure 2 shows the project's context and massing (not project color). The project site currently consists of an automobile service facility and surface parking area.



Existing Site

The proposed project involves demolition of the existing automotive repair building and construction of a new five-story 28 unit (24,374 sf) residential building over ground floor parking garage with fourteen parking spaces and a 2,423 commercial space on ground level. Project site plan and street elevations are provided as Figures 3 & 4. ■

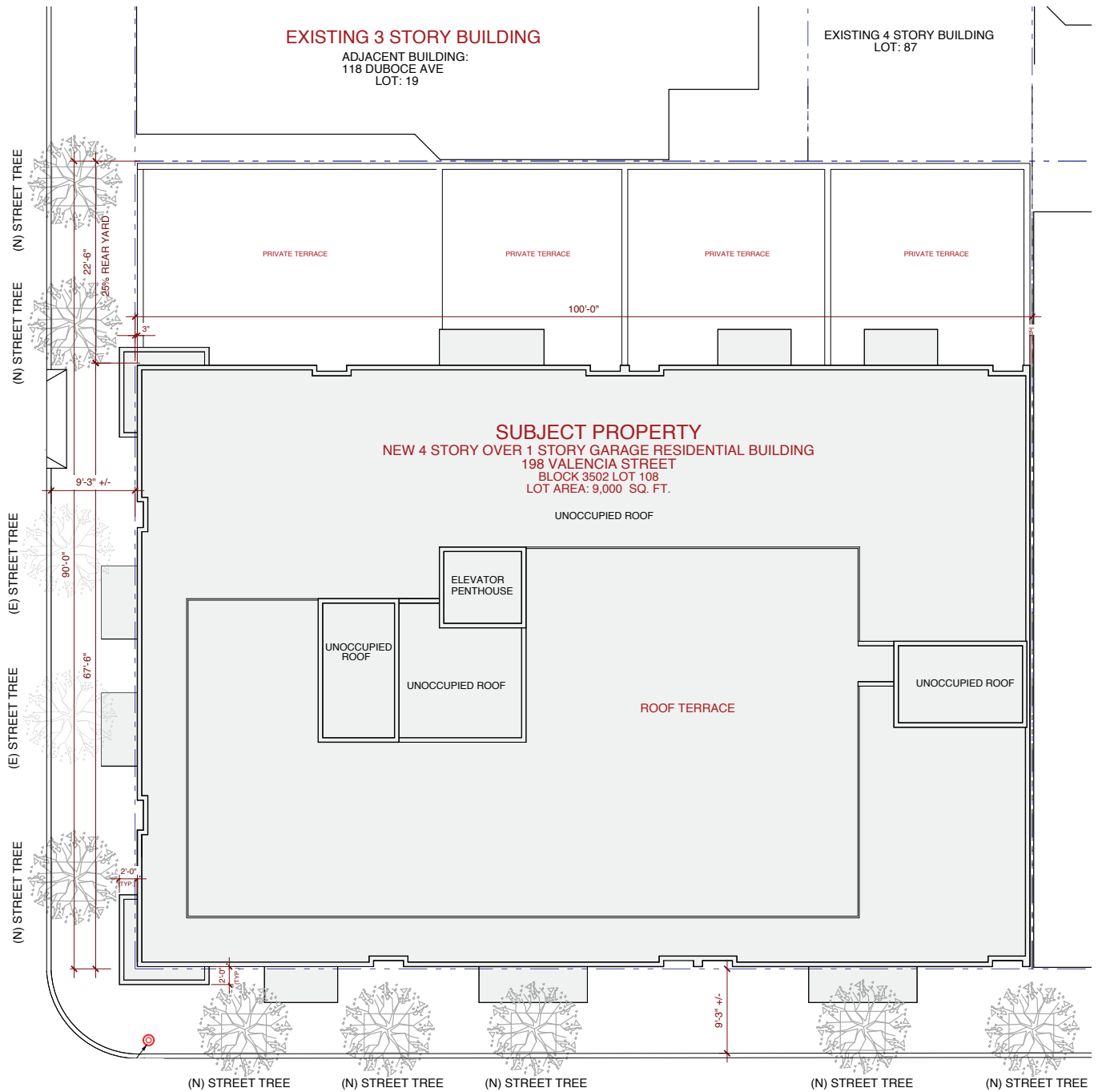


FIGURE 3: Project Site Plan



DUBOCE ELEVATION (West)



VALENCIA ELEVATION (South)

FIGURE 4: Project Elevations



Small dog play area



Skateboard Park



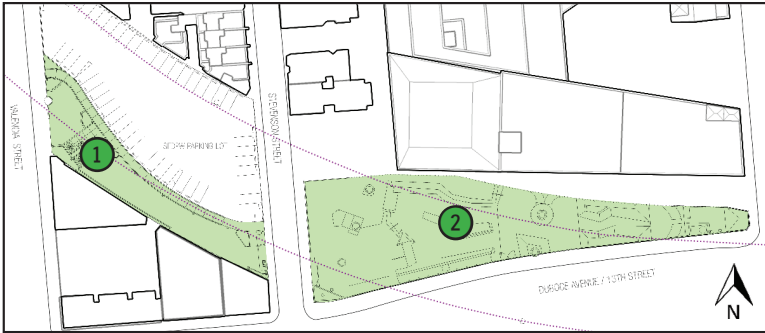
Overview of Parks

III. POTENTIALLY AFFECTED PARKS AND OPEN SPACES

SOMA West Dog & Skate Park

The SoMa West Skate Park and Dog Play Area (collectively “the park”, or the “dog park” and “skate park” individually) is a publicly accessible open space under the jurisdiction of the San Francisco Department of Public Works. The park spans east-west between Valencia Street to the West and Otis Street to the East. The park is physically divided into two sections by Stevenson Street, the western portion is designated as a dog park and the eastern portion a skateboard park. These open spaces were recently completed and opened to the public in July of 2014.

The dog park is located on the southern edge of Block 3513, Lot 074, which it shares with a City of San Francisco surface parking lot and has a total parcel area of 21,500 sq. ft. The dog park is bounded by Valencia Street to the west and Stevenson Street to the east. The Skate Park is located on Block 3513, Lot 071 with a parcel area of 33,223 sq. ft. Both spaces are located partially beneath an elevated portion of the Central Freeway (US 101). Both sections are fenced, with daily hours of operation for the Dog Park being 5am to midnight and 9am to 9pm for the skate park.



Park Overview Key Plan

SOMA WEST DOG AND SKATE PARK

- ① Dog Park Section
- ② Skate Park Section

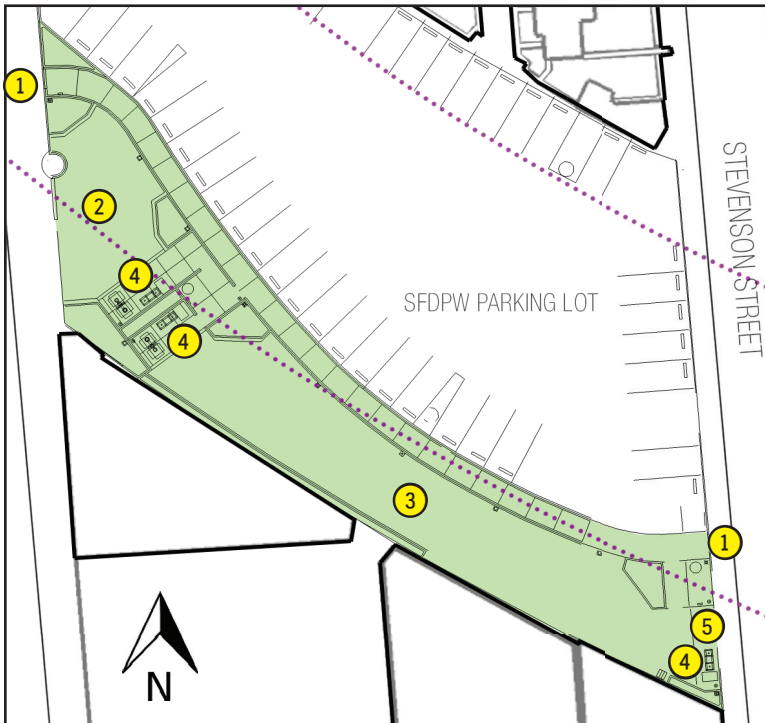


FIGURE 5: Dog Park Detail Plan

PARK FEATURE KEY

- ① Park Entry/Exit
- ② Smaller Dog Play Area (grass)
- ③ Larger Dog Play Area (grass)
- ④ Fixed Bench
- ⑤ Portable Restrooms
- ⑥ Concrete Skateboarding Area

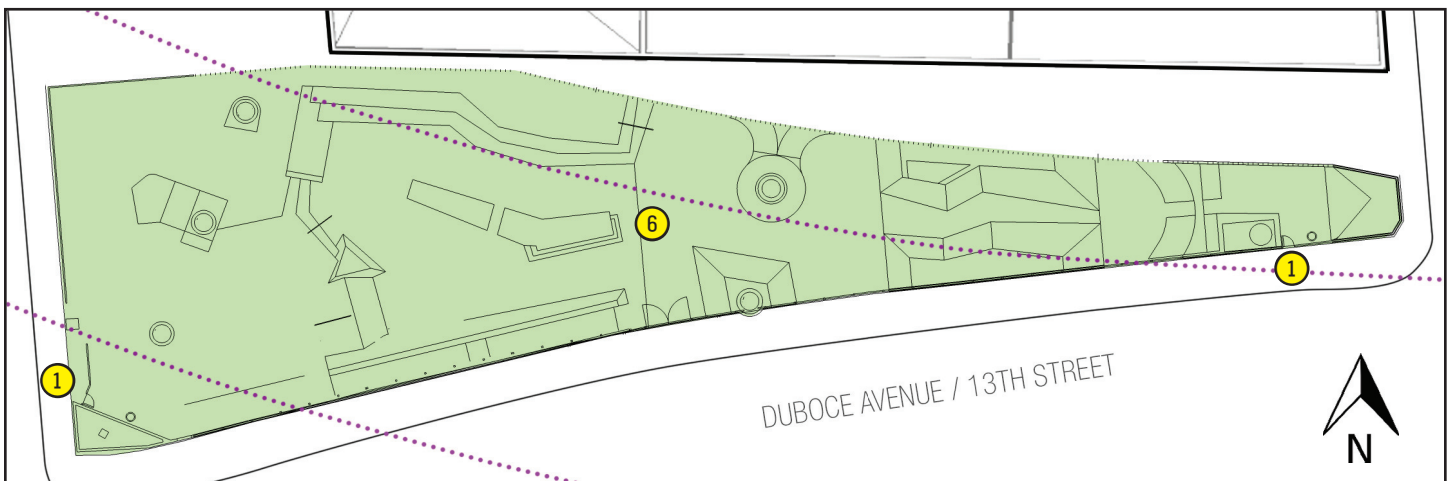


FIGURE 6: Skate Park Detail Plan

The dog play area is comprised of two separated areas, a smaller section designed for little dogs and a longer, larger section intended for bigger dogs. Other park features include two water fountains, artificial grass and 3 fixed benches along with approximately 10 landscaped areas with shrubs, grasses, small trees and climbing vines ranging in height from 1ft to 6ft.

The skateboard portion of the park is entirely paved and sculpted for use for skateboarders. There are six large circular freeway support pillars in the skateboard area covered by a murals.

There are no permanent building structures located on either portion of the park. Portable toilet facilities are present on the eastern edge of the dog park next to Stevenson Street.

Other Parks and Open Spaces

The proposed project does not have the potential to affect any other public parks or privately owned publicly accessible open spaces. ■

IV. EVALUATION CRITERIA

An evaluation of shading impacts under CEQA must respond to the question of whether or not the proposed project would create new shadow in a manner that substantially affects outdoor recreational facilities or other public areas. In order to determine whether new shading would be considered significant, both quantitative findings (how large the shadows would be, when they would occur) as well as qualitative elements (what activities occur in the open spaces, how well used are the spaces used) must be evaluated.

There is no single established standard for evaluation of shadow impacts under CEQA, however in the city of San Francisco there exists a local shadow ordinance which does specify a specific methodology for review of project generated shading, as described more fully below:

New development project in San Francisco over 40' in height which could potentially result in new shading to parks under the control of the San Francisco Recreation and Parks Department are subject to review under Section 295 of the San Francisco Planning code. Compliance with Section 295 of the Planning Code requires that proposed projects not adversely affect use of existing or proposed open spaces under the control of the San Francisco Recreation and Parks Department. Such adverse effect is defined by any development in excess of 40' in height which would add additional

levels of new shading in excess of any potentially allowable new shadow increment on that open space throughout the year at times between one hour after sunrise through one hour before sunset, unless the Planning Commission with input from the general manager of the Recreation and Parks Department and its Commission determine that such impact would be insignificant. For CEQA purposes, similar calculation are used for publicly accessible open spaces not under the control of RPD

PreVision Design's initial screening has determined that no parks nor open spaces under the control of the San Francisco Recreation and Parks Department would receive any new shading from the project, however parks under the jurisdiction of the San Francisco Department of Public Works would receive new shading by the project. As no Recreation and Parks Department properties are affected, the project does not require review or approval under Section 295 of the Planning code. However, the San Francisco Planning Department has determined that use of Section 295 calculations and observation methodology, which are often used to support CEQA analysis for development projects in San Francisco, would be adequate and appropriate to support CEQA shadow conclusions for the proposed project at 198 Valencia Street. ■

V. ANALYSIS METHODOLOGY

Quantitative Analysis

The shadow analysis completed by PreVision Design used an accurately Geo-located 3D computer model of the proposed project, the park, 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 proposed project starting one hour after sunrise through one hour before sunset. Between these cutoff times, the model performed snapshot analyses at 15-minute intervals and repeated this process for every seven days between the Summer Solstice and Winter Solstice. This half-year is referred to as a “solar year” for purposes of this report, 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 shadow. This increase is taken as a percentage of TAAS of sun in the park (the amount of sun that would fall on the park throughout the year if there were no shading present at any time) to determine whether the new shadows created by the proposed project would fall within or outside the potentially permissible limits of increased shading. The findings of this quantitative analysis are discussed in Section VI.

Qualitative Analysis

To evaluate whether and how new shading might affect existing patterns of park use, PreVision Design conducted six site visits to the park to observe park use(s). Two site visits were performed in the morning, two at midday, and two late in the day, all within analysis hours, with one set of visits on a weekday and one on a weekend. The findings of this qualitative analysis are discussed in Section VII. ■

VI. QUANTITATIVE SHADOW MODELING FINDINGS

Figures 7 and 8 summarize the existing condition data and quantitative shadow impacts of the proposed project on the park. As the dog park and skate park are physically discontinuous as well as divergent in their intended uses, PreVision Design has analyzed each space separately. The full quantitative calculations for shading conditions on both portions of the park on all 27 analysis dates are included as Exhibit E.

Existing Conditions

The dog park has a total area of 0.2 acres and currently has 16,115,115 square-foot-hours (sfh) of shadow annually. Based on a theoretical annual available sunlight (TAAS) of 31,641,978 sfh, the park is currently shaded 50.93% of the year.

The skate park has a total area of 0.48 acres and currently has 55,277,651 square-foot-hours (sfh) of shadow annually. Based on a theoretical annual available sunlight (TAAS) of 78,244,351 sfh, the park is currently shaded 70.65% of the year.

Increase in Shadow from Proposed Project

The proposed project would result in new shadows falling on both sections of the park. The dog park would receive approximately 337,951 net new annual sfh of shadow and increasing sfh of shadow by 1.07% above current levels, resulting in a new cumulative annual total shading of 52.00%. The skate park would receive approximately 14,124 net new annual sfh of shadow and increasing sfh of shadow by 0.02% above current levels, resulting in a new cumulative annual total shading of 70.67%.

Timing and Location of New Shadows from Proposed Project

New shadows from the proposed project would occur within the dog park from late summer through mid-spring (August 17-April 25) in the later portions of the afternoon. At the skate park, new shadow would be present during two periods in the spring and

THEORETICAL ANNUAL AVAILABLE SUNLIGHT (TAAS)	
Area of SOMA West Dog Park	0.20 acres
Hours of annual available sunlight	3721.4 hrs
TAAS for SOMA West Dog Park	31,641,978 sfh
EXISTING (CURRENT) SHADING CONDITIONS	
Existing annual total shading on park (sfh)	16,115,115 sfh
Existing shading as percentage of TAAS	50.93%
SHADING DETAILS	Soma West Dog Park
New annual shading from Project only (sfh)	337,951 sfh
Shading from Project only as percentage of TAAS	1.07%
Total annual shading Existing + Project (sfh)	16,453,066 sfh
Shading from Existing + Project as percentage of TAAS	52.00%
Number of days when new Project shading occurs	252 days annually
Dates when new Project shading occurs	August 17 - April 25
Range in size of new shadow (sf)	Zero to 2,187 sf
Annual range of duration of new shadows	Zero to Approx. 135 min
Average daily duration of new shadow (when present)	Approx. 110 min
DAY(S) OF MAXIMUM SHADING	Soma West Dog Park
Date(s) where maximum new shading occurs	Jan 12 & Nov 29
Percentage new shadow on date(s) of maximum shading (sf)	3.72%
Largest new shadow on date(s) of maximum shading (sf)	2123.96 sf
Duration of shading on date(s) of maximum shading	Approx. 123 min
Total New Shading on date(s) of maximum shading	108,692.95 sfh

FIGURE 7: Project quantitative shading breakdown for Dog Park

fall (February 17 - May 2 and again August 10 - October 24) also in the later portions of the afternoon.

New shadows would occur on grassy areas throughout the small dog play area as well as portions of the larger dog play area, and at various times fall on two fixed benches. At the skate park, new shading would occur on portions of the western skate area. The aggregate extent of all new shading throughout the year is shown in Exhibit A, and snapshots of shading conditions at the Summer Solstice (June 21), Vernal and Autumnal Equinoxes (March 20 /September 22), Winter Solstice (December 21), and Day(s) of Maximum Shading (Jan 12/Nov 29 & March 15/September 27) are shown in Exhibits B through E, respectively.

THEORETICAL ANNUAL AVAILABLE SUNLIGHT (TAAS)	
Area of SOMA West Skate Park	0.48 acres
Hours of annual available sunlight	3721.4 hrs
TAAS for SOMA West Skate Park	78,244,351 sfh
EXISTING (CURRENT) SHADING CONDITIONS	
Existing annual total shading on park (sfh)	55,277,651 sfh
Existing shading as percentage of TAAS	70.65%
SHADING DETAILS	SOMA West Skate Park
New annual shading from Project only (sfh)	14,124 sfh
Shading from Project only as percentage of TAAS	0.02%
Total annual shading Existing + Project (sfh)	55,291,775 sfh
Shading from Existing + Project as percentage of TAAS	70.67%
Number of days when new Project shading occurs	151 days annually
Dates when new Project shading occurs	Feb 17-May 2 & Aug 10- Oct 24
Range in size of new shadow (sf)	Zero to 1,893 sf
Annual range of duration of new shadows	Zero to Approx. 42 min
Average daily duration of new shadow (when present)	Approx. 30 min
DAY(S) OF MAXIMUM SHADING	SOMA West Skate Park
Date(s) where maximum new shading occurs	Mar 15 & Sep 27
Percentage new shadow on date(s) of maximum shading (sf)	0.10%
Largest new shadow on date(s) of maximum shading (sf)	1893.06 sf
Duration of shading on date(s) of maximum shading	Approx. 42 min
Total New Shading on date(s) of maximum shading	268,776.16 sfh

FIGURE 8: Project quantitative shading breakdown for Skate Park

The days of maximum shading on the dog park due to the proposed project would occur on January 12 and November 29, when the proposed project would shade the of the small dog play area beginning at just after 2pm and be present until the end of the analysis period (one hour prior to sunset), or approximately 2 hours. The duration of proposed project-generated new shadow would vary throughout the year, with new shadow present from zero to 123 minutes per day.

The days of maximum shading on the skate park due to the proposed project would occur on March 15 and September 27 when the proposed project would shade a portion of the northwest corner of the skating area beginning at approximately 4:40pm and be present until the end of the analysis period (one hour prior to sunset), or approximately

20 minutes. The duration of proposed project-generated new shadow would vary throughout the year, with new shadow present from zero to 20 minutes per day.

VII. QUALITATIVE ANALYSIS

Observed Park Uses

Over the six 30-minute observation periods, the intensity of dog park usage was relatively consistent at 3-5 users plus their pets, with a peak intensity of 9 users occurring on Thursday, 3/12/15 at 11am. A majority of observed users were actively running or walking with their dogs while 2-3 users were occupying benches. The majority of the users were observed in the eastern (larger section) of the park, only 3 users were observed using the western (smaller section) dog area of the park.

Over the six 30-minute observation periods, the observed intensity of the skate park area use varied, from a low weekday morning of 7 users on Thursday, 3/12/15 to a high of 32 observed on the weekend afternoon of Saturday, 3/21/15. Throughout the observation the majority of users were observed skateboarding throughout the entire area, with a smaller portion, 6-8 users, sitting and observing along the northern and western edges of the park. See Figure 9 for an observation summary.

OBSERVATION TIME	DATE OF VISIT	PARK USERS	TEMP - WEATHER
Weekday Morning	3/12/15	25	59° F Sunny
Weekday Midday	3/10/15	36	61° F - Cloudy
Weekday Afternoon	3/10/15	38	56° F - Cloudy
Weekend Morning	3/21/15	46	58° F – Partly Cloudy
Weekend Midday	3/21/15	56	60° F – Scattered Clouds
Weekend Afternoon	3/21/15	58	64° F – Mostly Sunny

FIGURE 9: Park Use Observations (Dog/Skate park combined)

Overall, observed use at the park was slightly higher on weekends than during the week, but reasonably consistent a various times of day. At all observation times, a higher intensity of use was observed at the skate park as compared to the dog park.

The Value of Sunlight

The value of sunlight varies depending on the nature of features being shaded as well as their intensity of use. Benches, picnic tables, play areas, and other similar features at which users are usually stationary for periods of time are typically considered more

sensitive than transitional spaces (such as walkways), or wooded areas where shadow is already a predominant and expected condition. Additionally, open areas of sufficient size that are substantially unshaded (large grassy areas, etc.) may be considered less affected by new shadow if the areas also have low use intensity and if users seeking sunshine would be able to navigate to a sunny spot with minimal inconvenience. Finally, the value of sunlight varies with the abundance or scarcity of features relative to demand. For example, new shadow affecting 10 benches in a little-used park that has a total of 25 benches would potentially have less impact than new shadow affecting 5 benches in a heavily used park that has only 10 benches. In the latter case, the value of a sunny bench is elevated due to its relative scarcity.

At the dog park, the areas likely to be most sensitive to new shading that would receive new shadow from the proposed project are the grassy dog play areas and 2 fixed benches, in particular for visitors to the small dog area which receives the bulk of the shading from the proposed project. Skate park users would appear to be less impacted, due to the smaller amount of new shading, the fact that the space is already significantly shaded, and nature of use is intensively active.

Other Factors Affecting Sunlight

One of the more unusual features of the park is its location underneath a freeway overpass. This condition accounts for a large percentage of existing annual shading, and may also impact some park visitor's expectations for sunshine.

Shadow Characteristics

Throughout the year, new shadow due to the proposed project would occur on grassy areas throughout the small dog play area as well as portions of the larger dog play area, and at various times fall on two fixed benches. At the skate park, new shading would occur on portions of the western skate area (see Exhibit A), with new shadow occurring in the later afternoon when present. At the moment of maximum annual shading on the dog park (Jan 12 / Nov 29), the new shadow would cover 2124 square feet, or 3.72%, of the total park area. At the moment of maximum annual shading on the skate park (Mar 15 / Sep 27), the new shadow would cover 1893 square feet, or 0.1%, of the total park area.

Exhibits B through E graphically illustrate shading conditions at hourly intervals throughout the day between the Section 295 cutoff times at the Summer Solstice (June 21), the Vernal and Autumnal Equinoxes (March 20 and September 22), the Winter Solstice (December 21), and the Day(s) of Maximum Shading (Jan 12/Nov 29 & March 15/September 27). ■



EXHIBIT A: AGGREGATE SHADOW DIAGRAM

A1 - Areas of new shading from project (full-year)

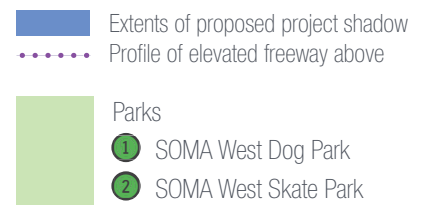
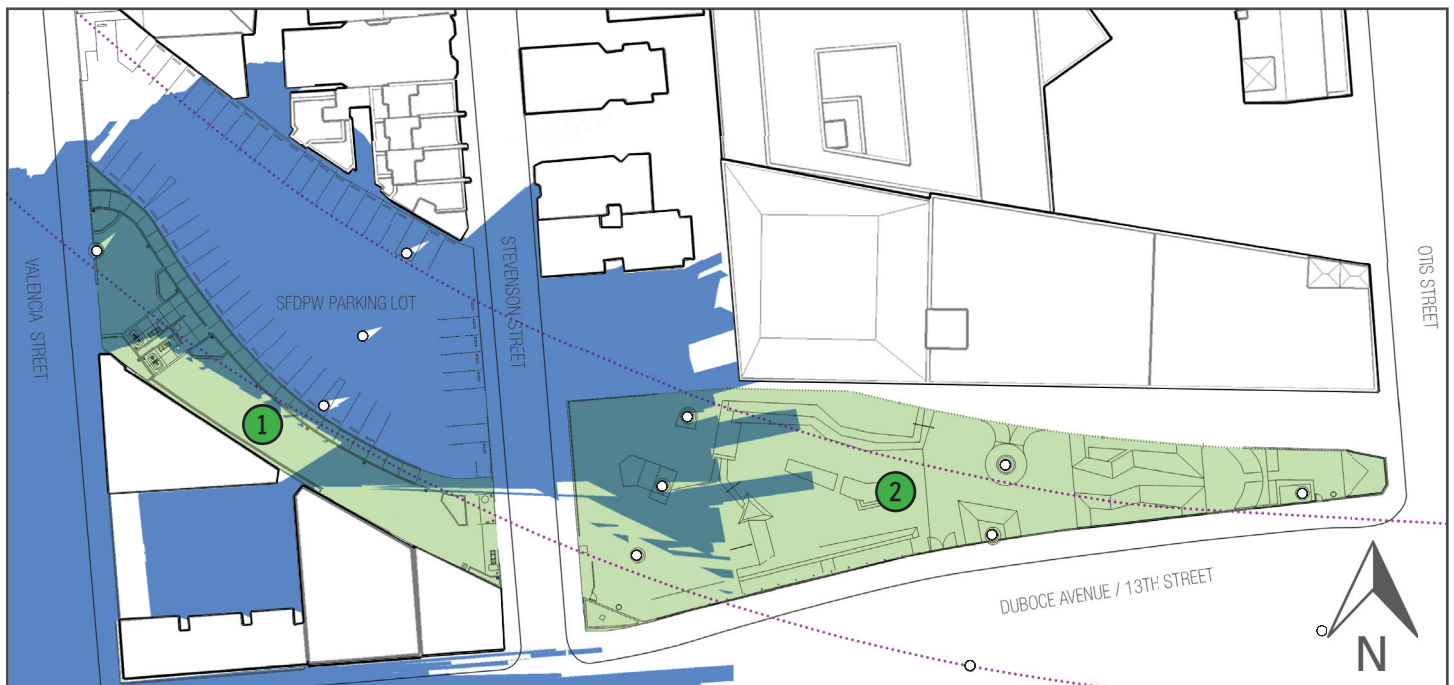
Diagram showing extents of all areas receiving new shadow from the proposed project at *some* point during the year.

A1.1

198 VALENCIA SHADOW STUDY

Cumulative Extents of New Shading from Project

PARK DETAIL (UNDER FREEWAY)



LOCATION/EXTENTS OF NEW SHADING
CAST BY PROJECT ON PARK ANNUALLY

FULL YEAR



EXHIBIT B: SHADOW DIAGRAMS ON SUMMER SOLSTICE

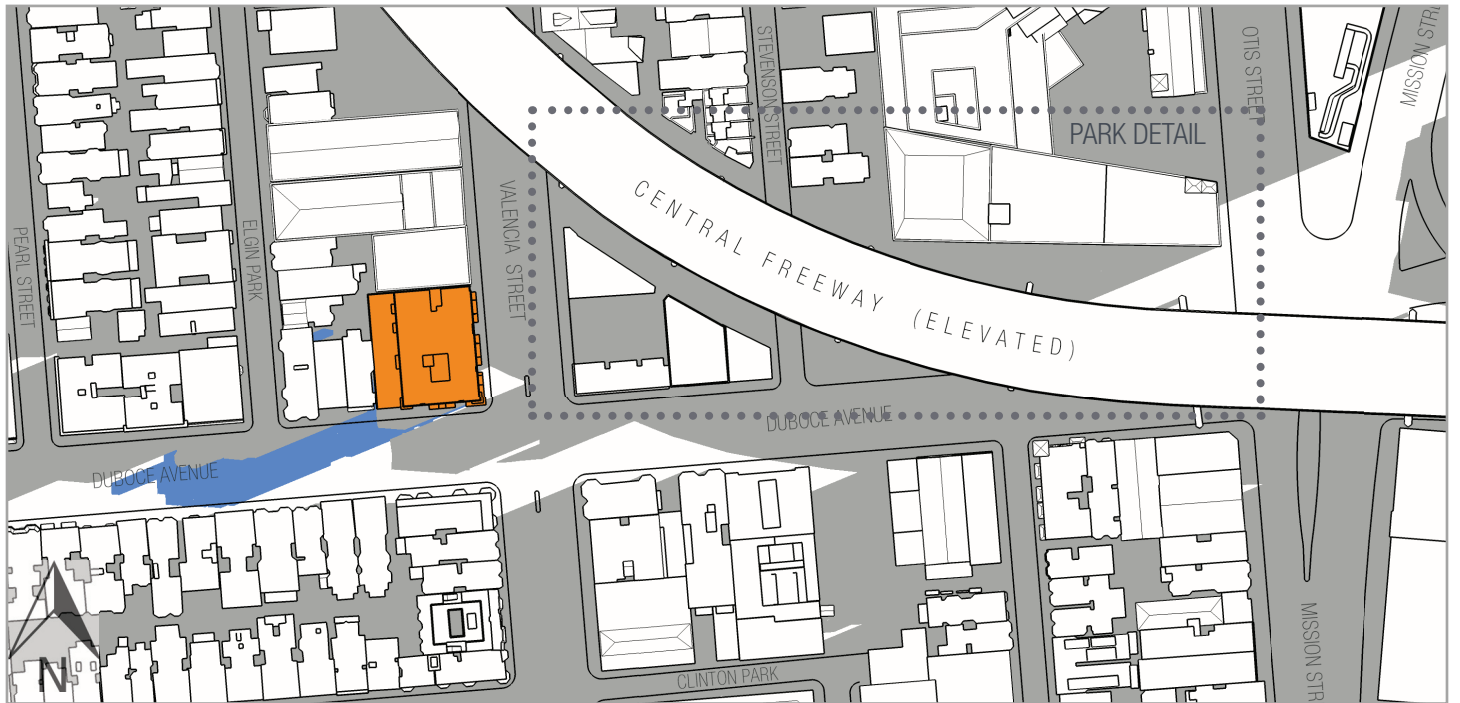
B1 - June 21

Diagrams at one hour intervals starting one hour after sunrise to one hour prior to sunset.

B1.1

198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice

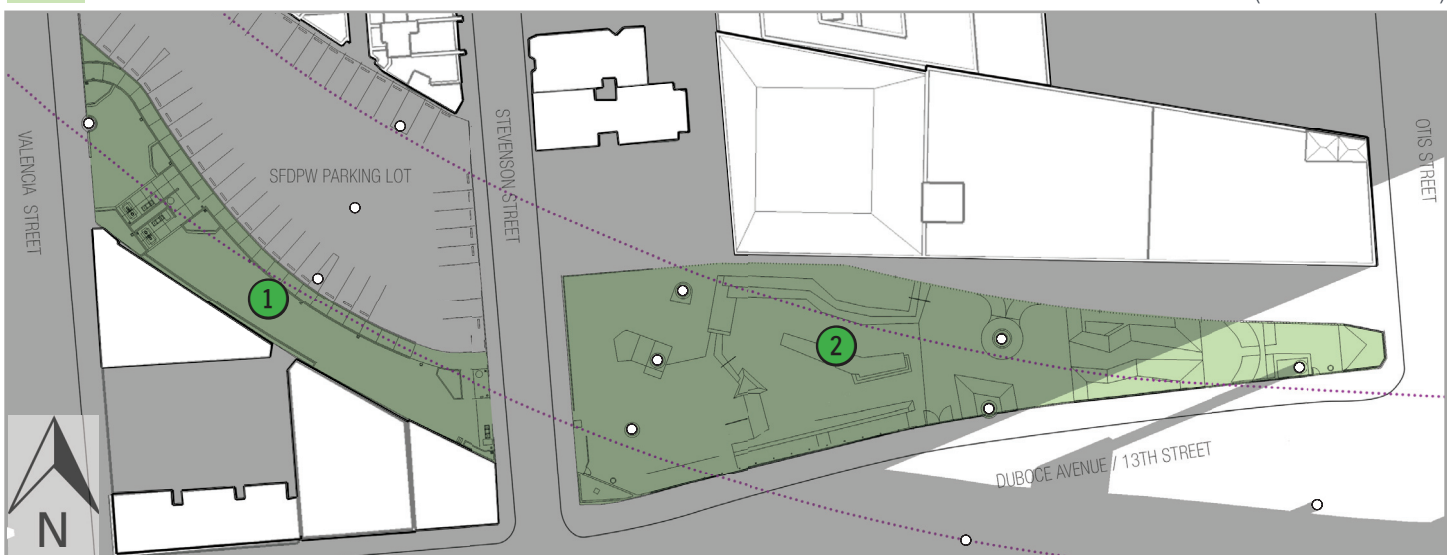


Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

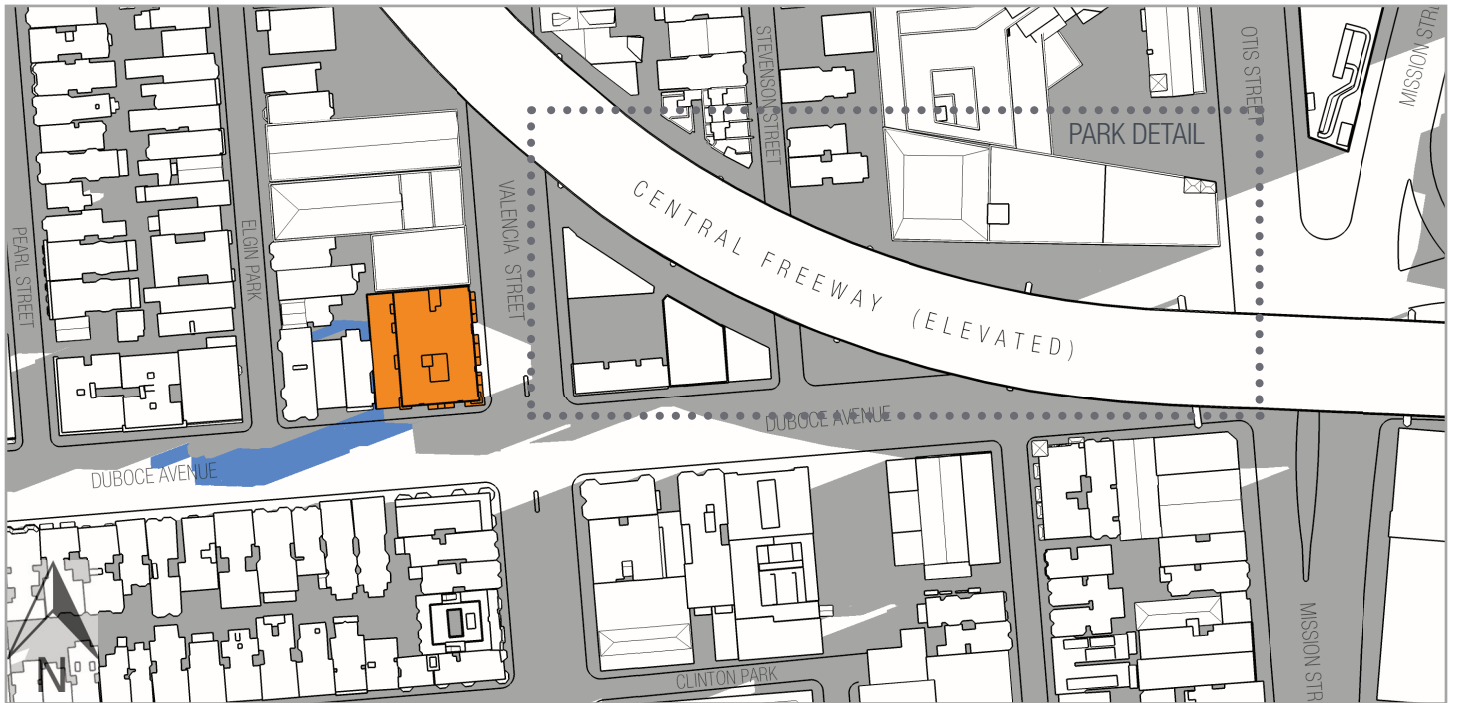
SUMMER SOLSTICE
JUNE 21

6:48 AM

B1.2

198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice

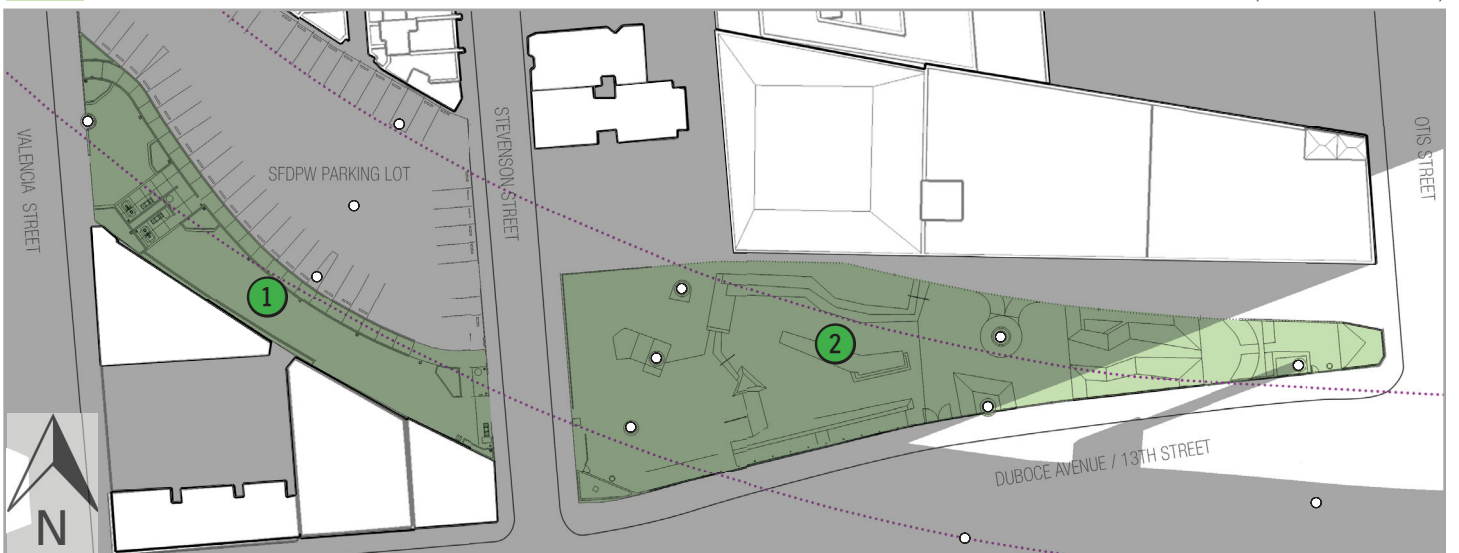


Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

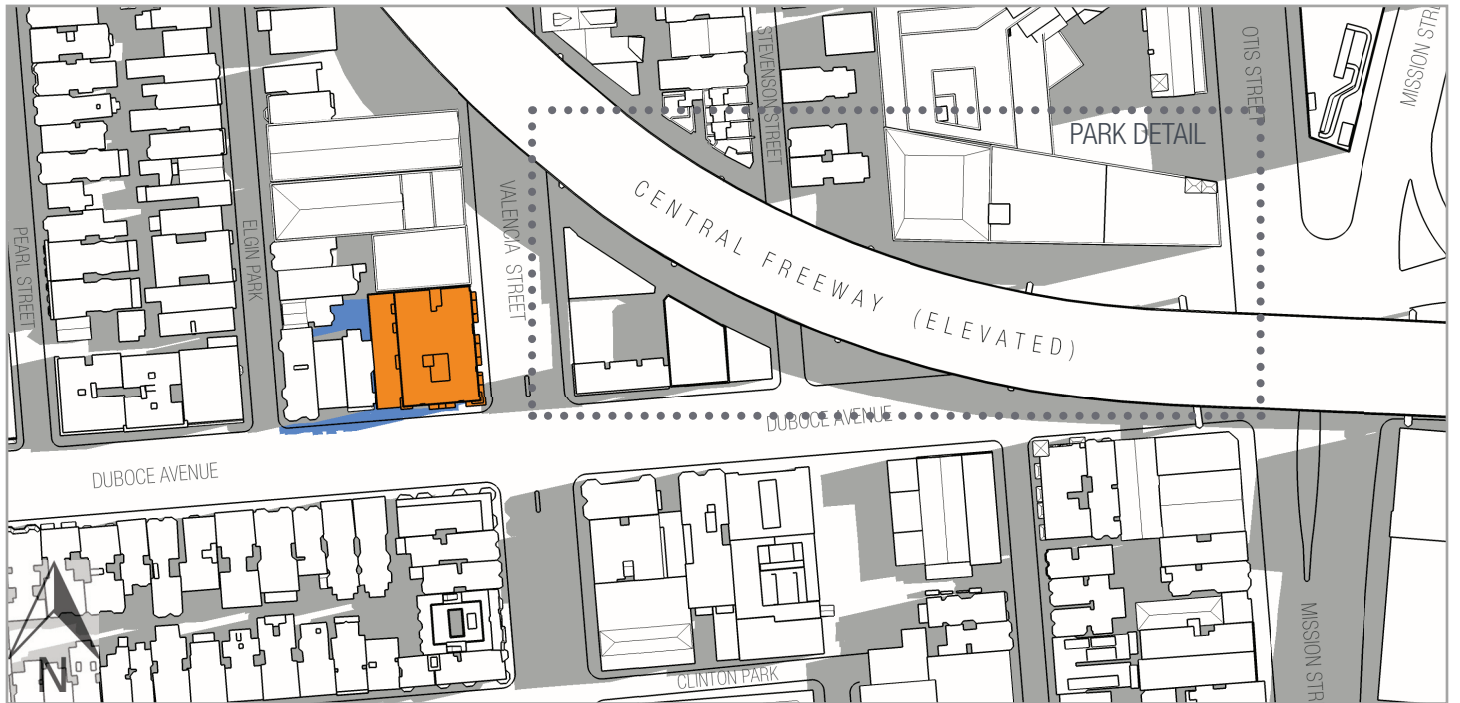
**SUMMER SOLSTICE
JUNE 21**

7:00 AM

B1.3

198 VALENCIA SHADOW STUDY

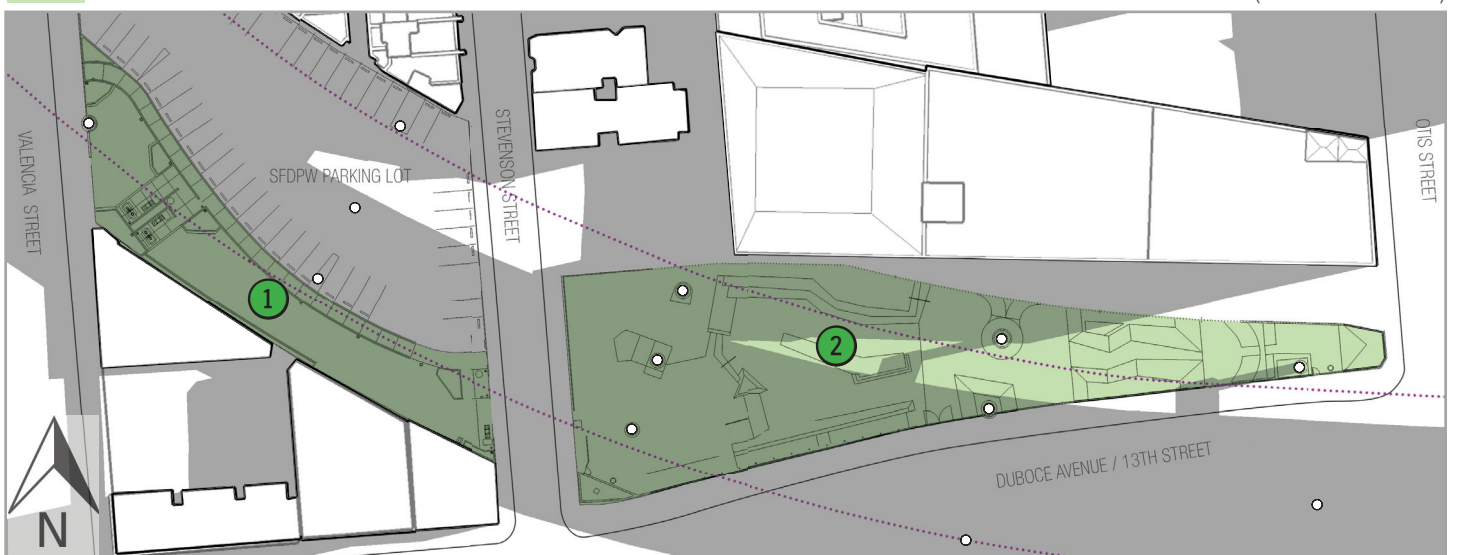
Shadow Profiles on the Summer Solstice



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

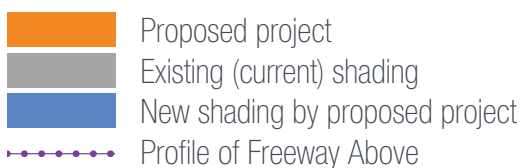
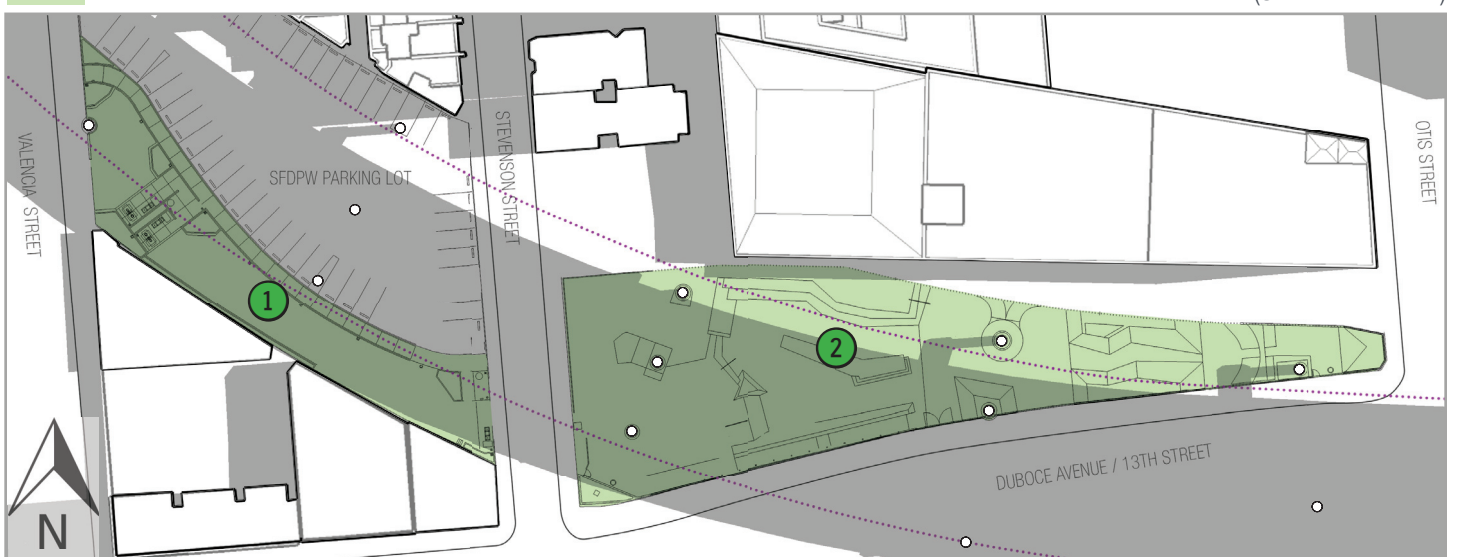
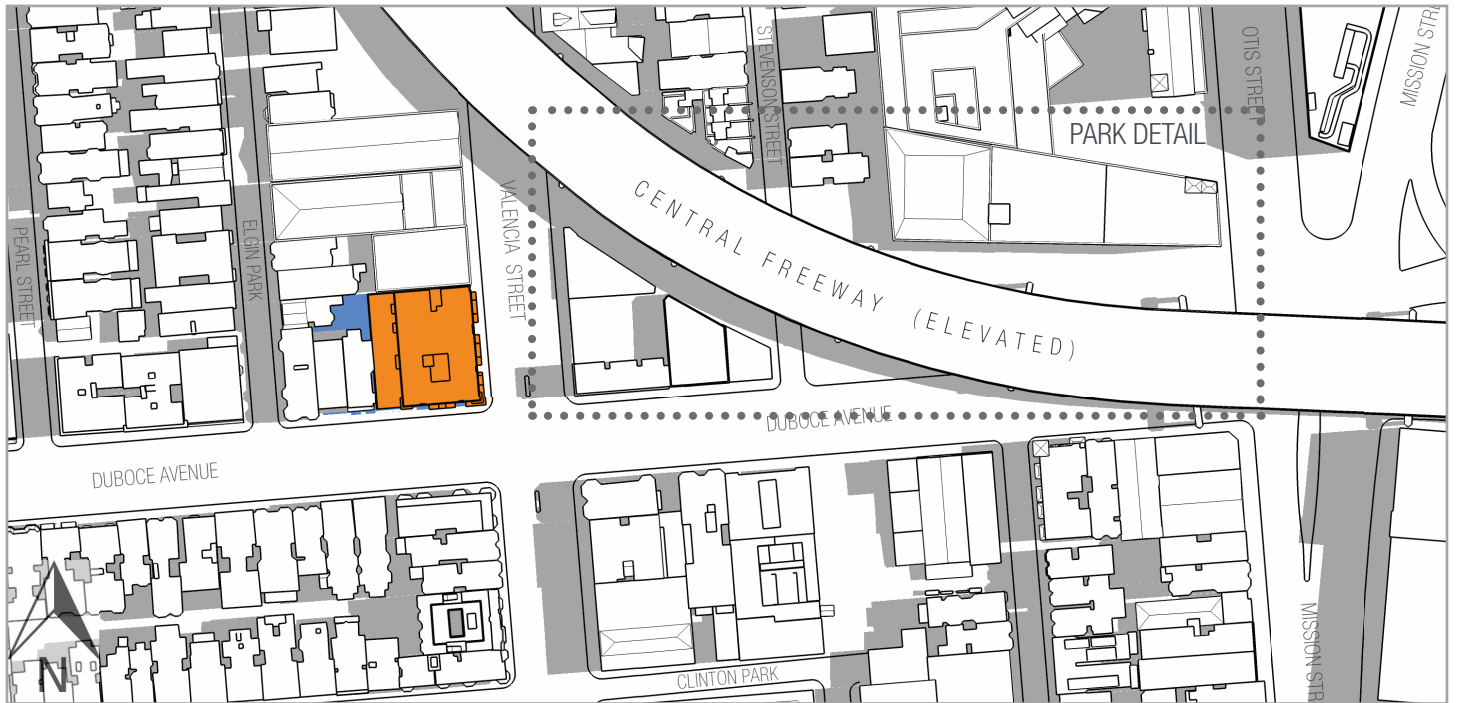
SUMMER SOLSTICE
JUNE 21

8:00 AM

B1.4

198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice

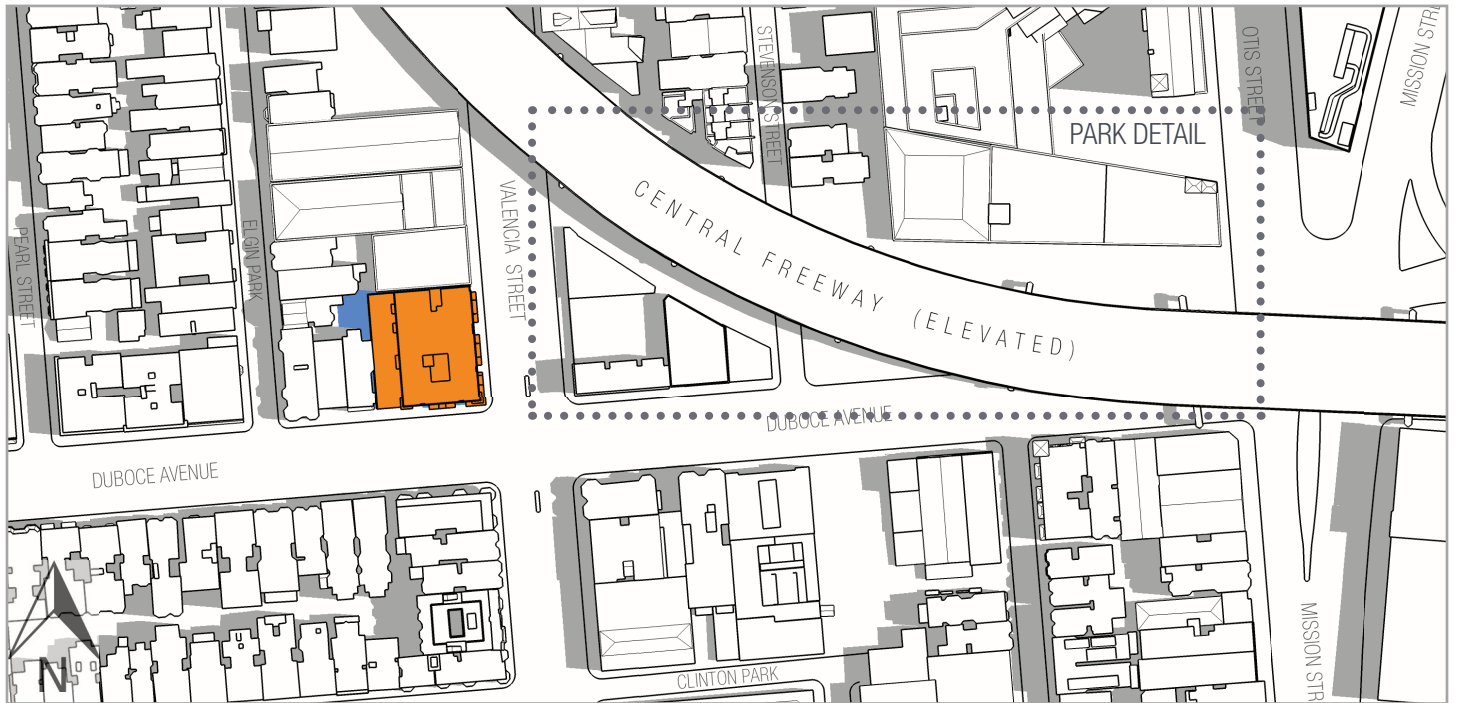


SUMMER SOLSTICE
JUNE 21

9:00 AM

B1.5**198 VALENCIA SHADOW STUDY**

Shadow Profiles on the Summer Solstice



Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

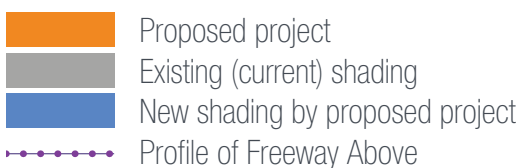
SUMMER SOLSTICE
JUNE 21

10:00 AM

B1.6

198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice



**SUMMER SOLSTICE
JUNE 21**

11:00 AM

B1.7

198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

SUMMER SOLSTICE
JUNE 21

12:00 PM

B1.8**198 VALENCIA SHADOW STUDY**

Shadow Profiles on the Summer Solstice



AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

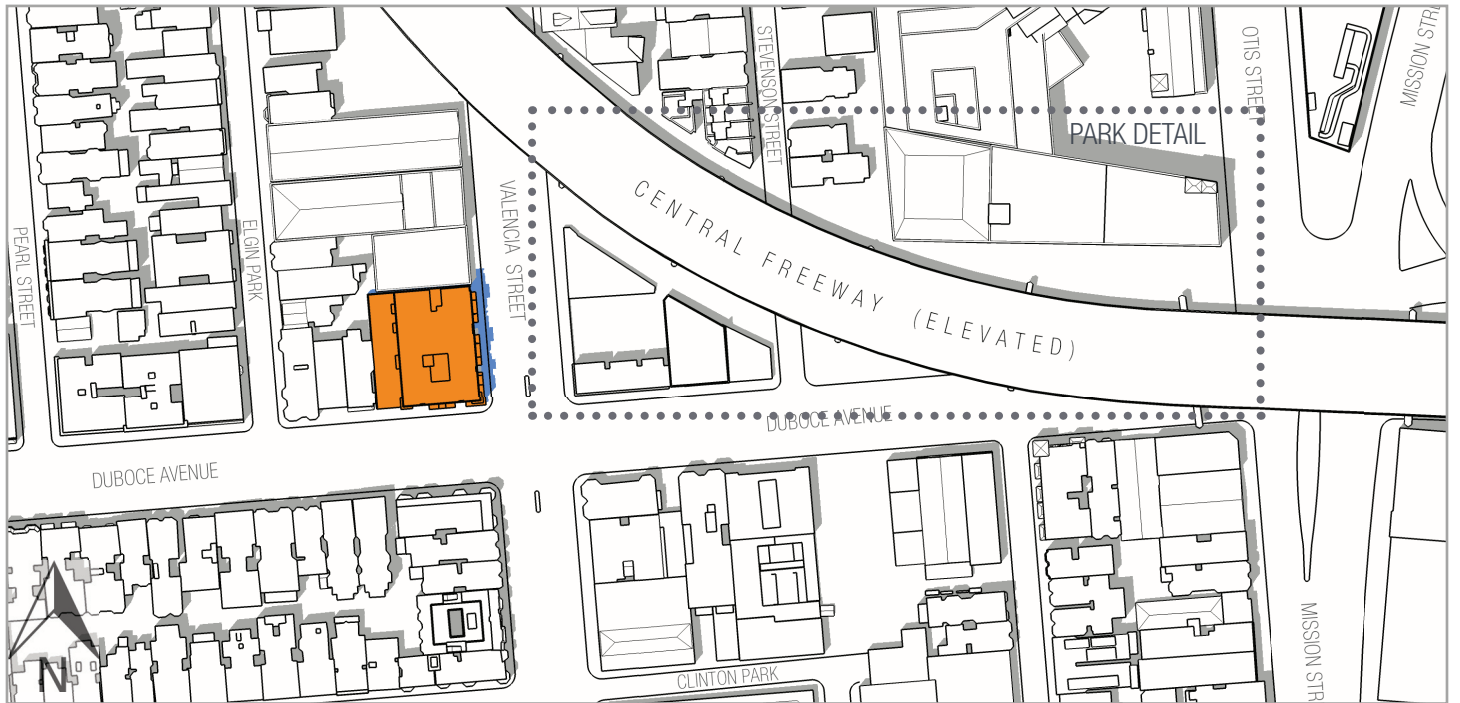
SUMMER SOLSTICE
JUNE 21

1:00 PM

B1.9

198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



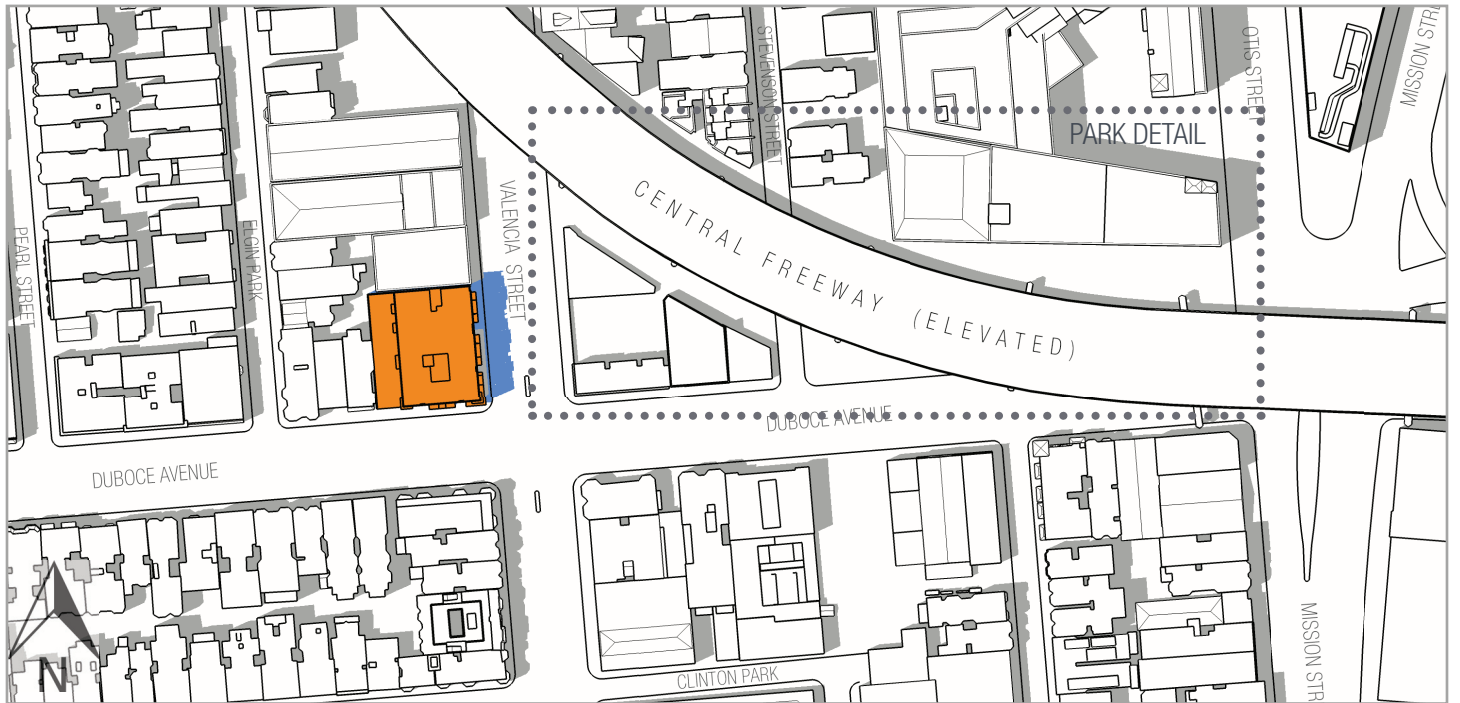
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

SUMMER SOLSTICE
JUNE 21

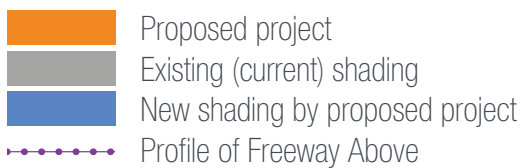
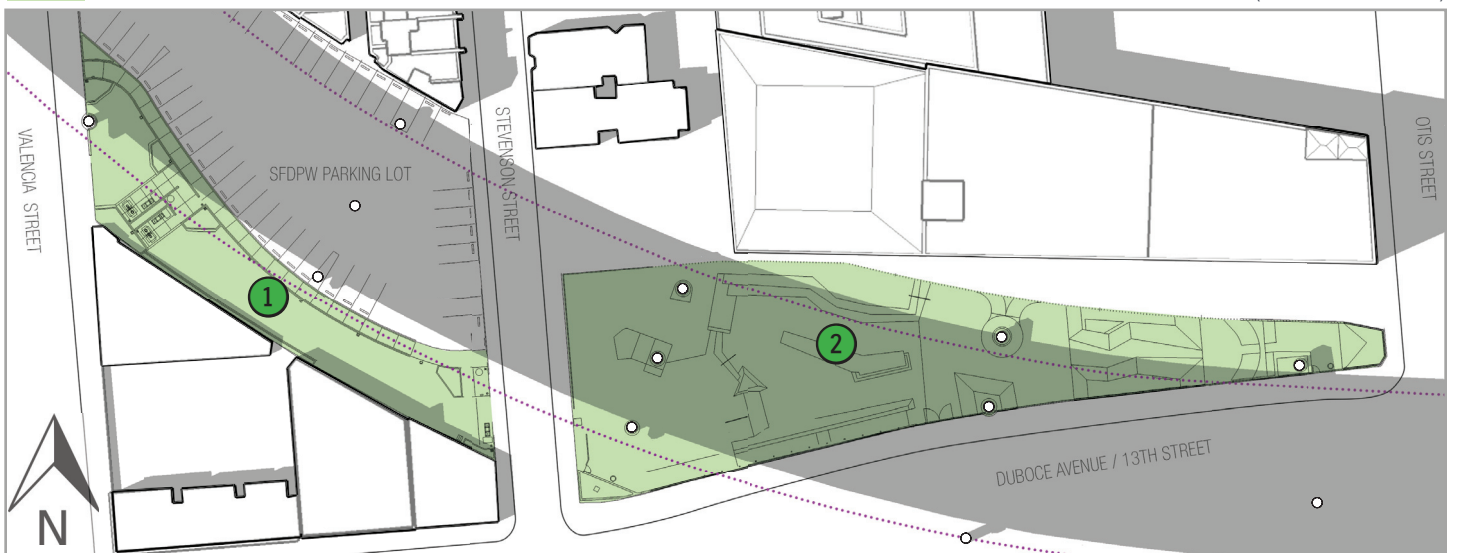
2:00 PM

B1.10 198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice



PARK DETAIL (UNDER FREEWAY)

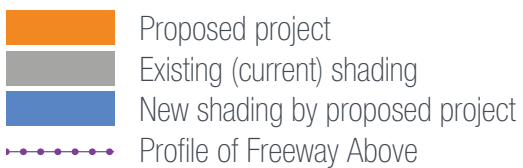
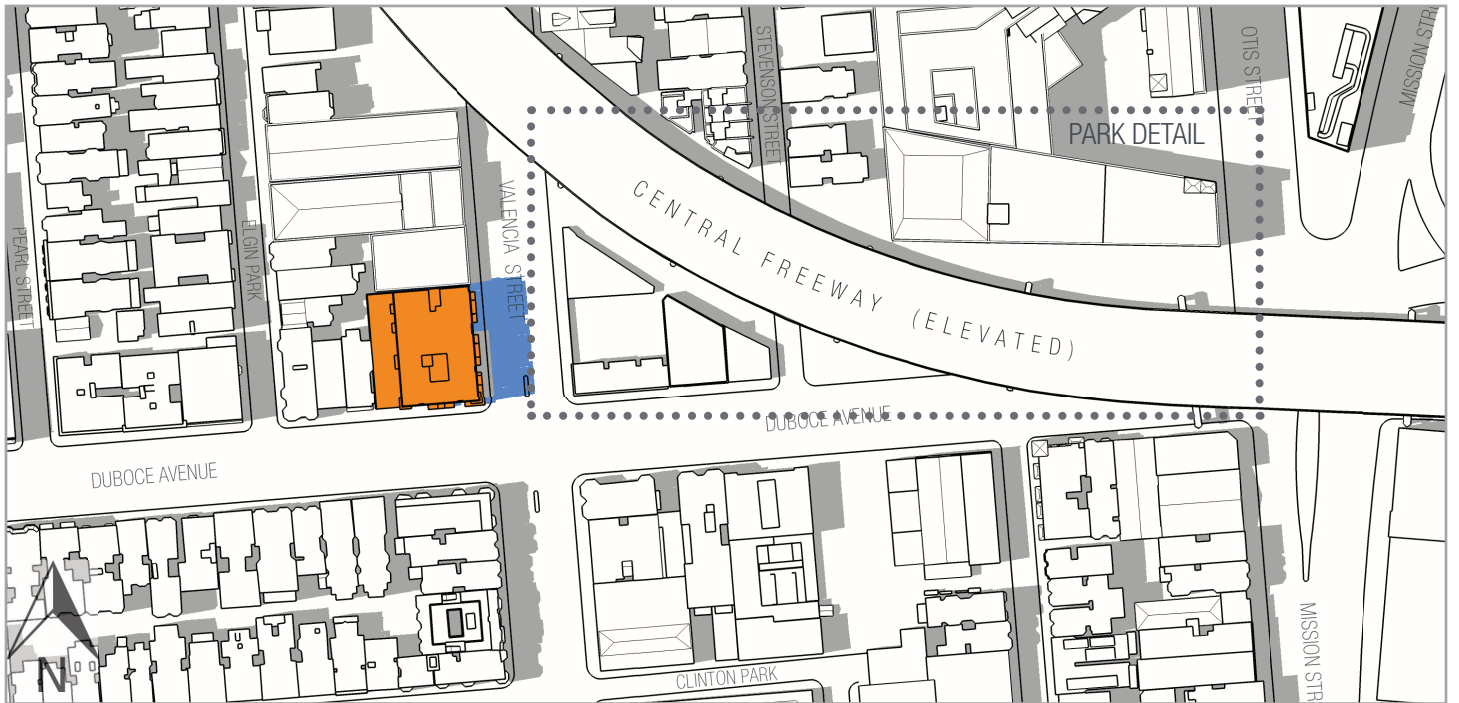


**SUMMER SOLSTICE
JUNE 21**

3:00 PM

B1.11 198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice

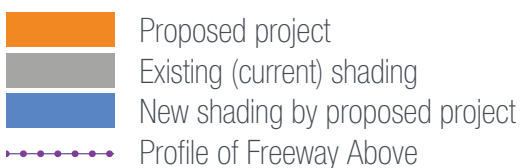
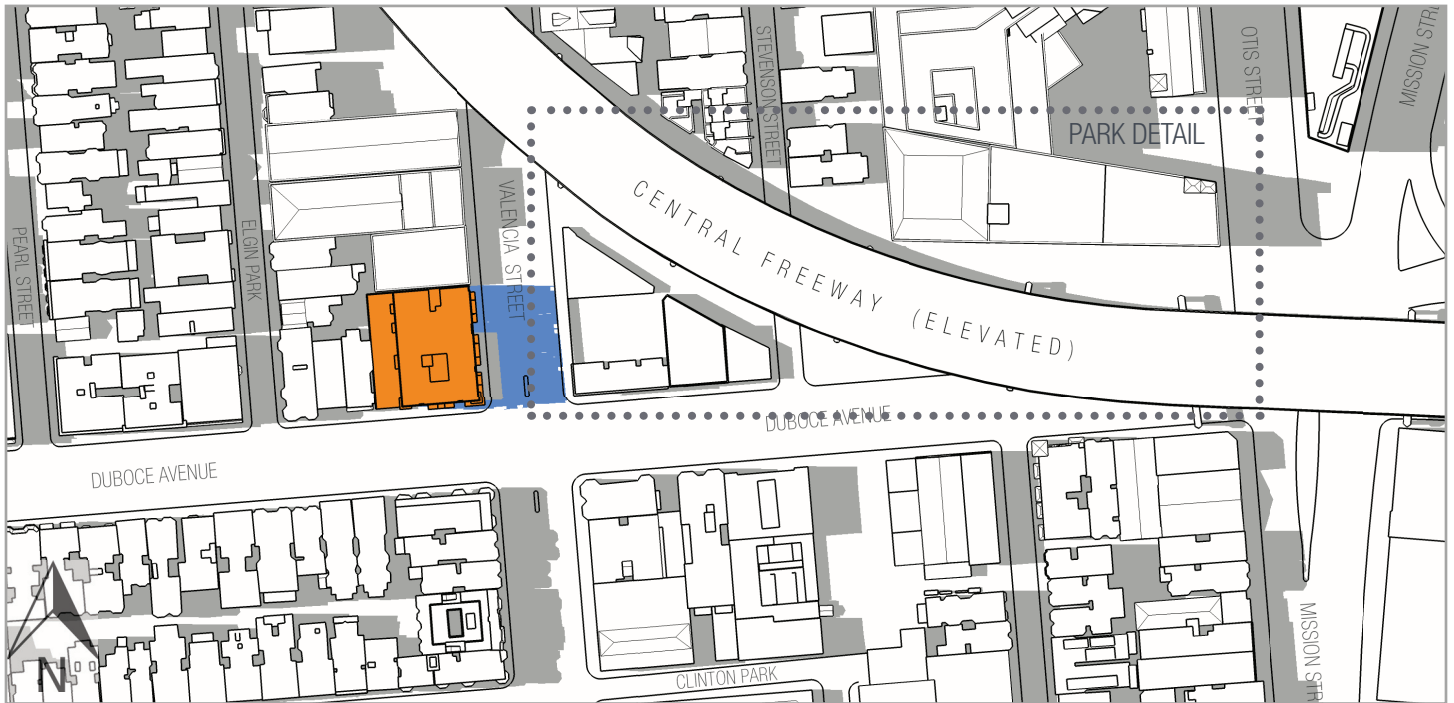


**SUMMER SOLSTICE
JUNE 21**

4:00 PM

B1.12 198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice

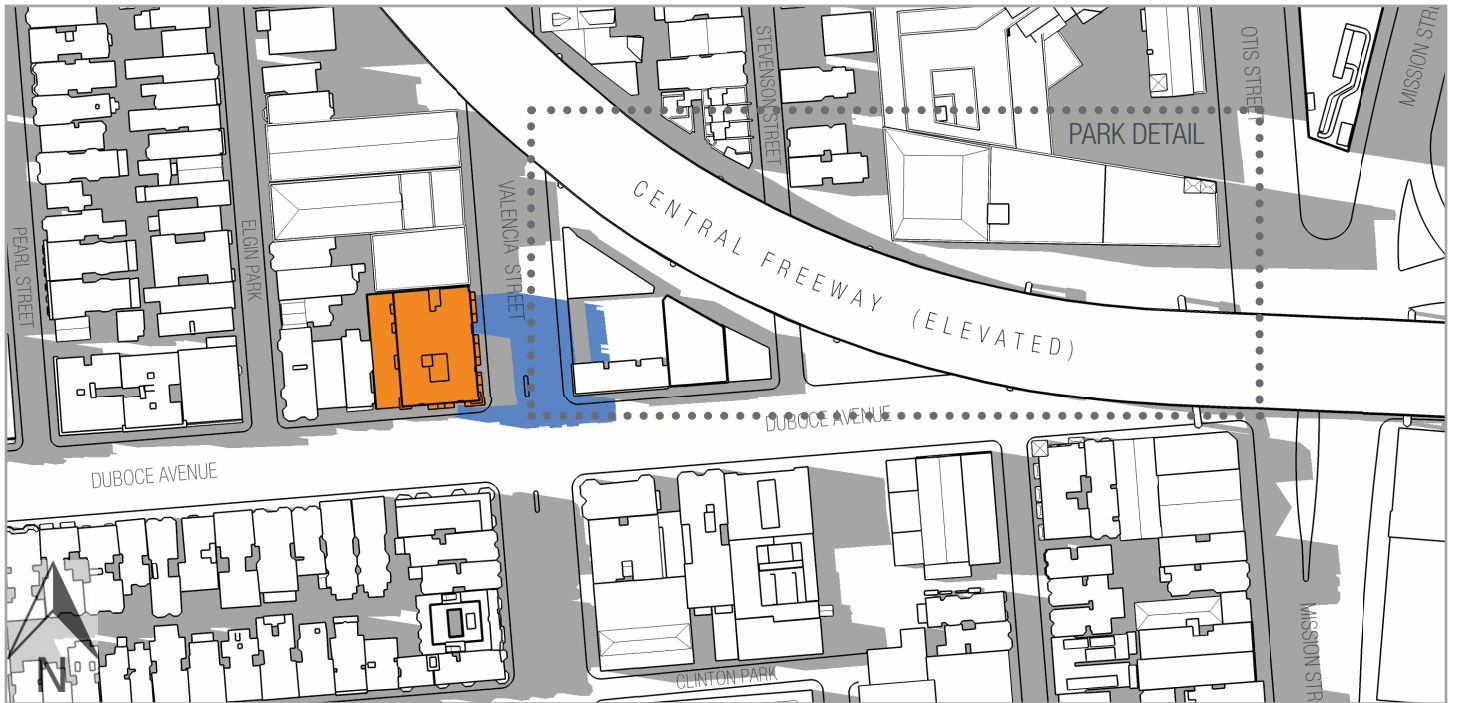


**SUMMER SOLSTICE
JUNE 21**

5:00 PM

B1.13 198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice



Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



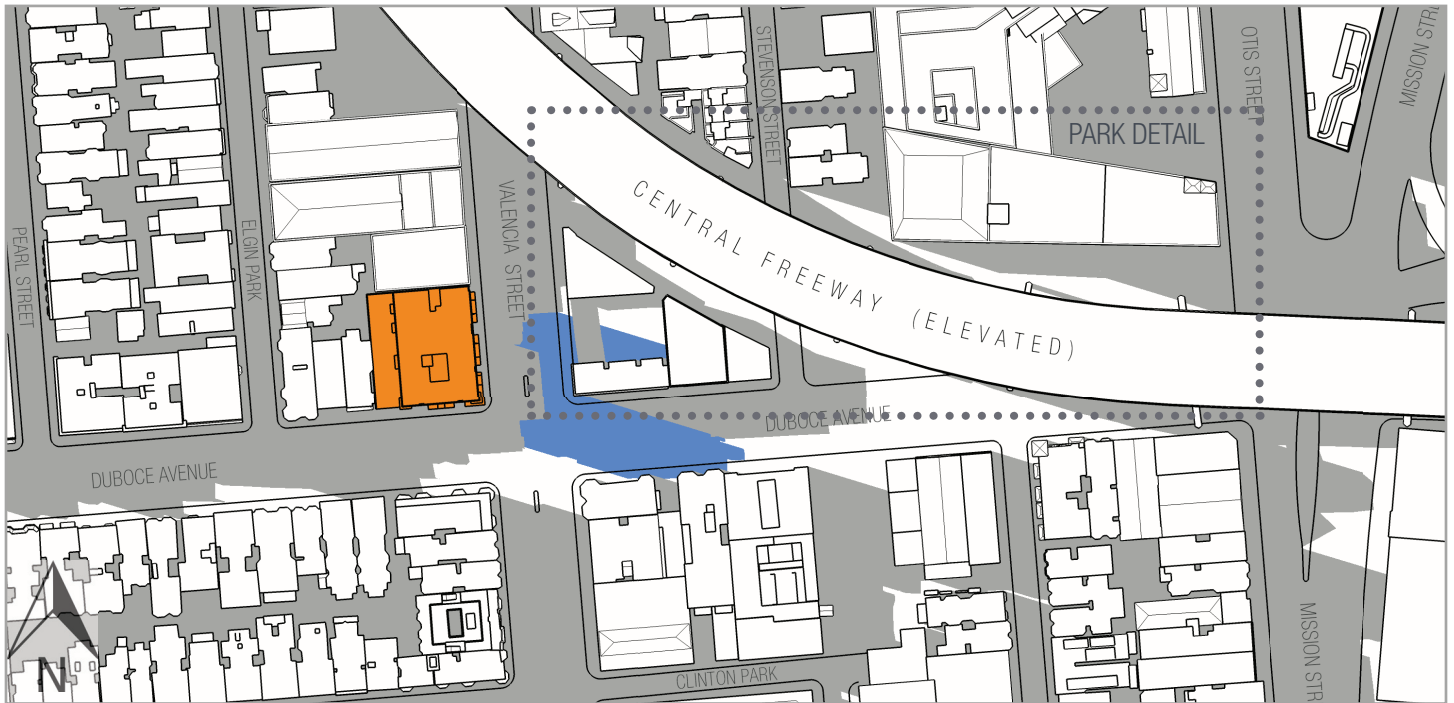
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

SUMMER SOLSTICE
JUNE 21

6:00 PM

B1.14 198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice



AREA SHADING

- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

SUMMER SOLSTICE
JUNE 21

7:00 PM

B1.15 198 VALENCIA SHADOW STUDY

Shadow Profiles on the Summer Solstice

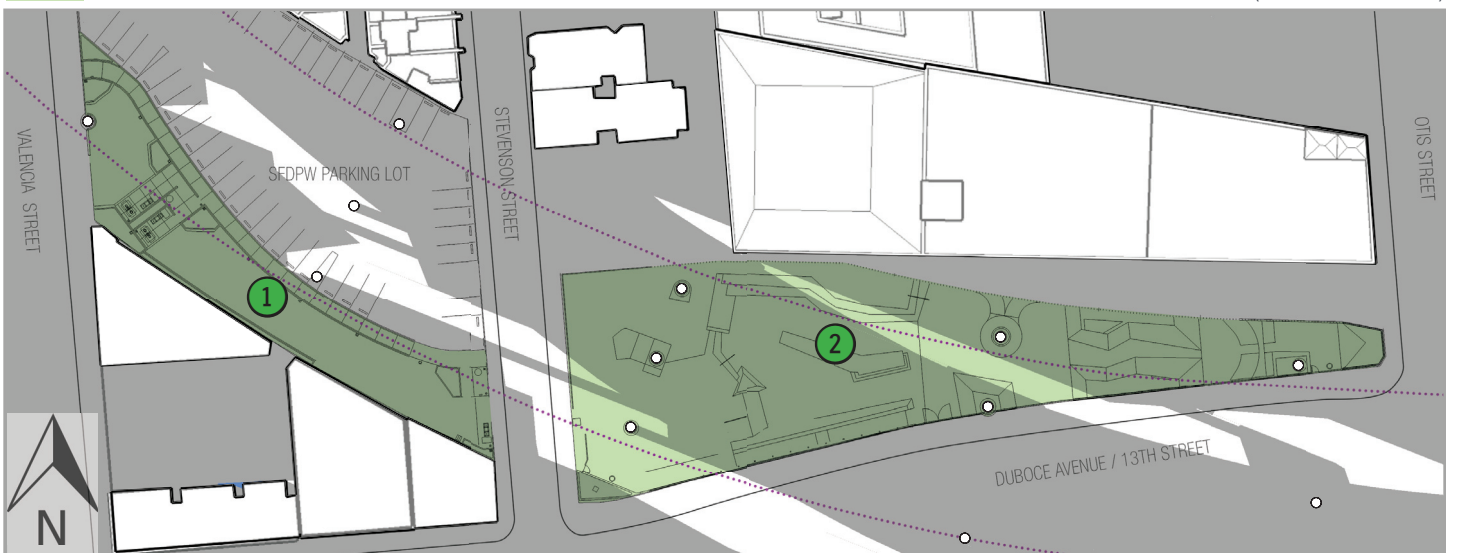


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

SUMMER SOLSTICE
JUNE 21

7:35 PM



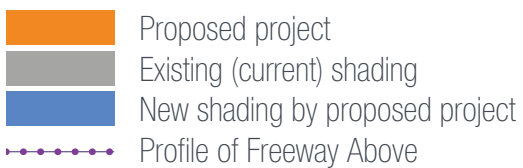
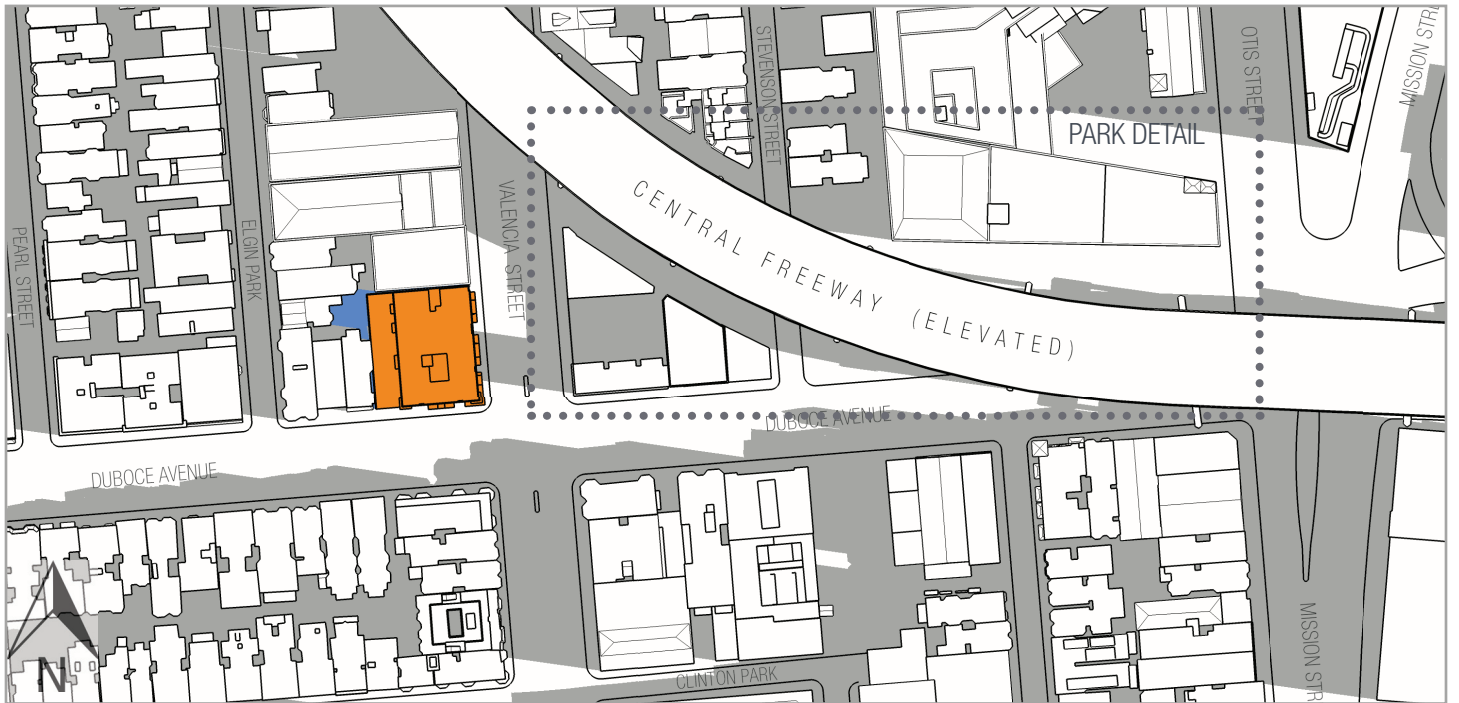
EXHIBIT C: SHADOW DIAGRAMS ON EQUINOXES

C1 - September 22 (Autumnal), March 20 (Vernal) similar

Diagrams at one hour intervals starting one hour after sunrise to one hour prior to sunset.

C1.1 198 VALENCIA SHADOW STUDY

Shadow Profiles on Equinoxes



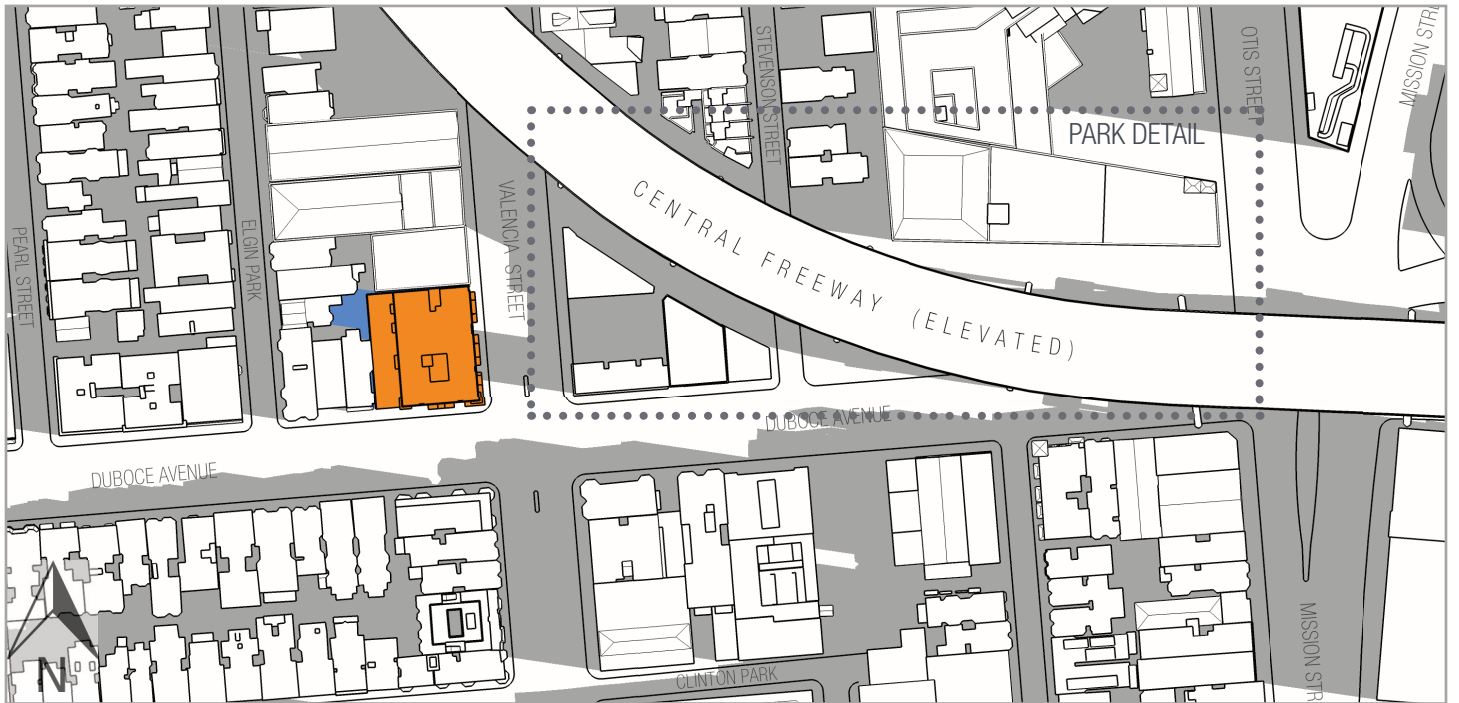
VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

7:58 AM

C1.2

198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

8:00 AM

C1.3

198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox



AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

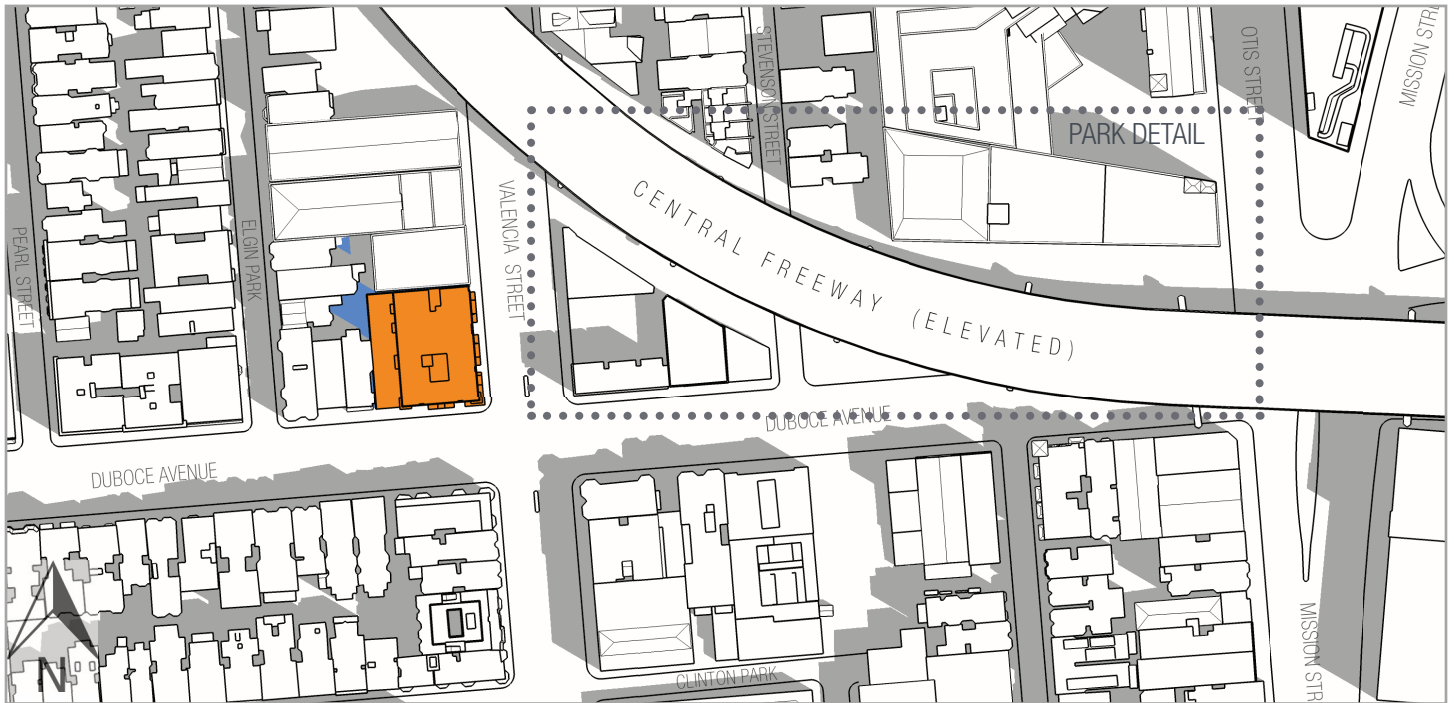
VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

9:00 AM

C1.4

198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox



- Parks**
- ① SOMA West Dog Park
 - ② SOMA West Skate Park
- AREA SHADING
- PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

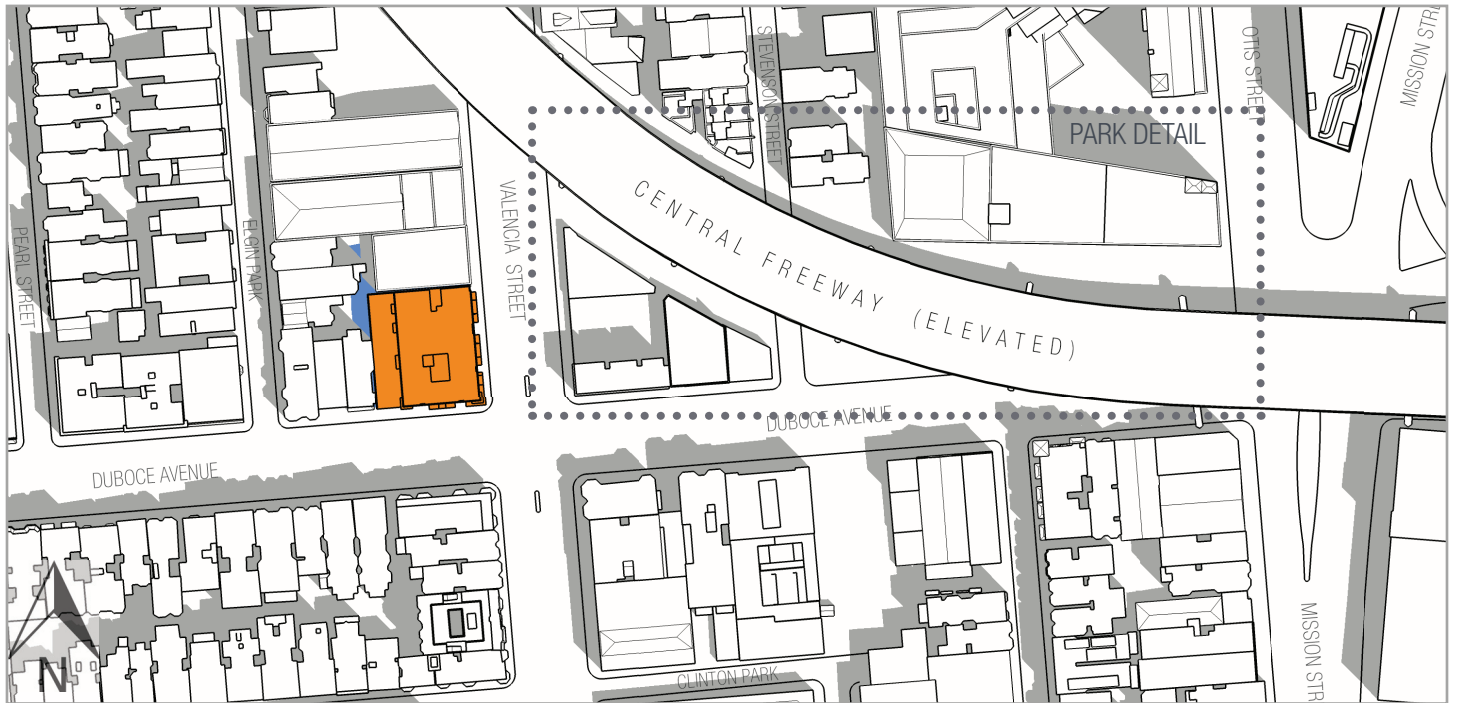
VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

10:00 AM

C1.5

198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

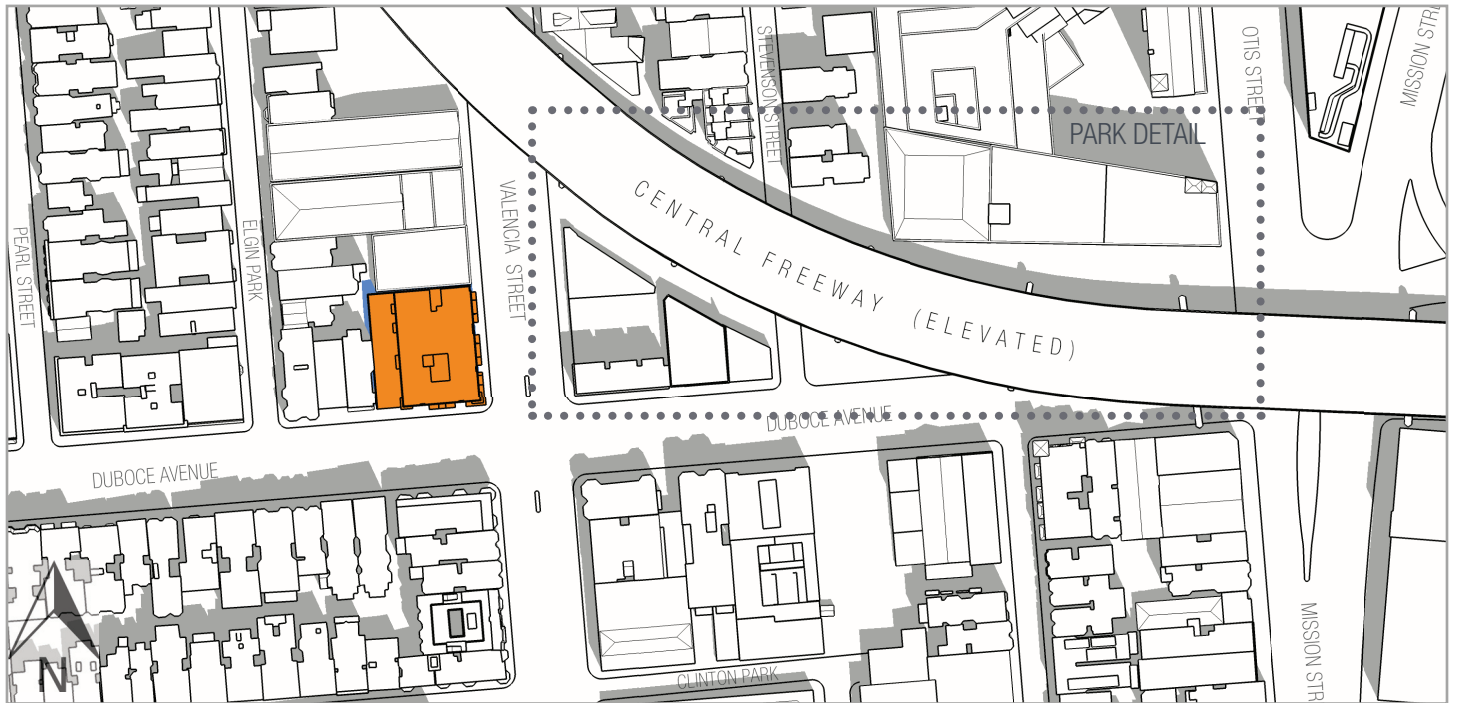
VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

11:00 AM

C1.6

198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox

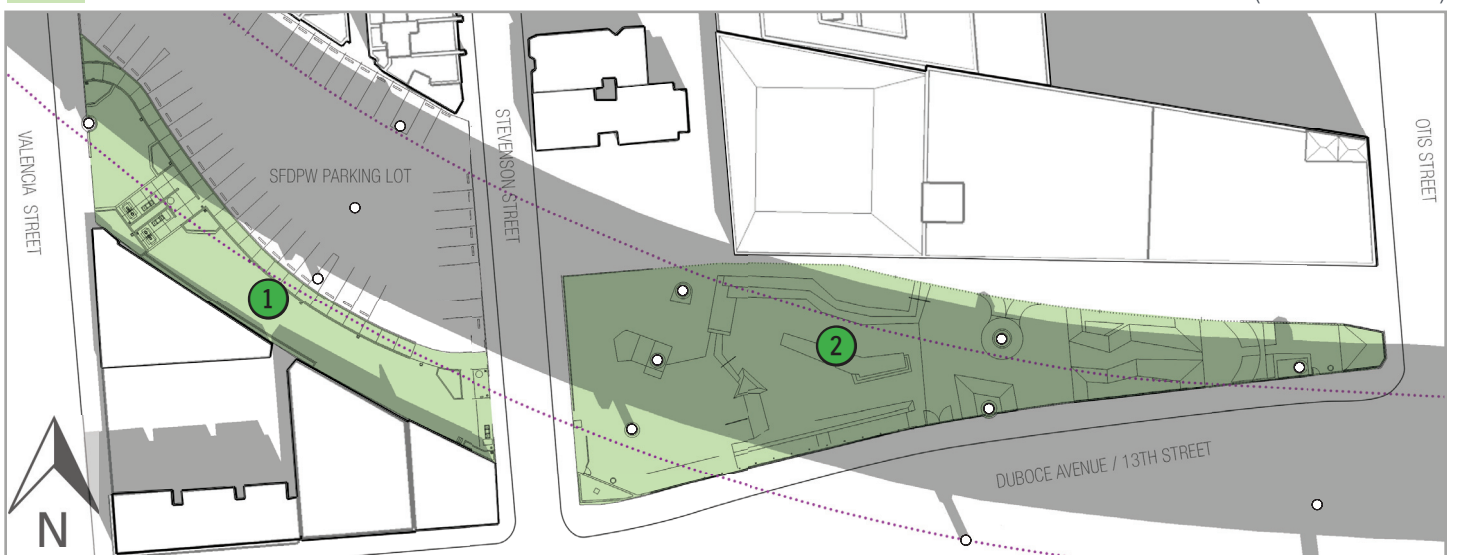


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

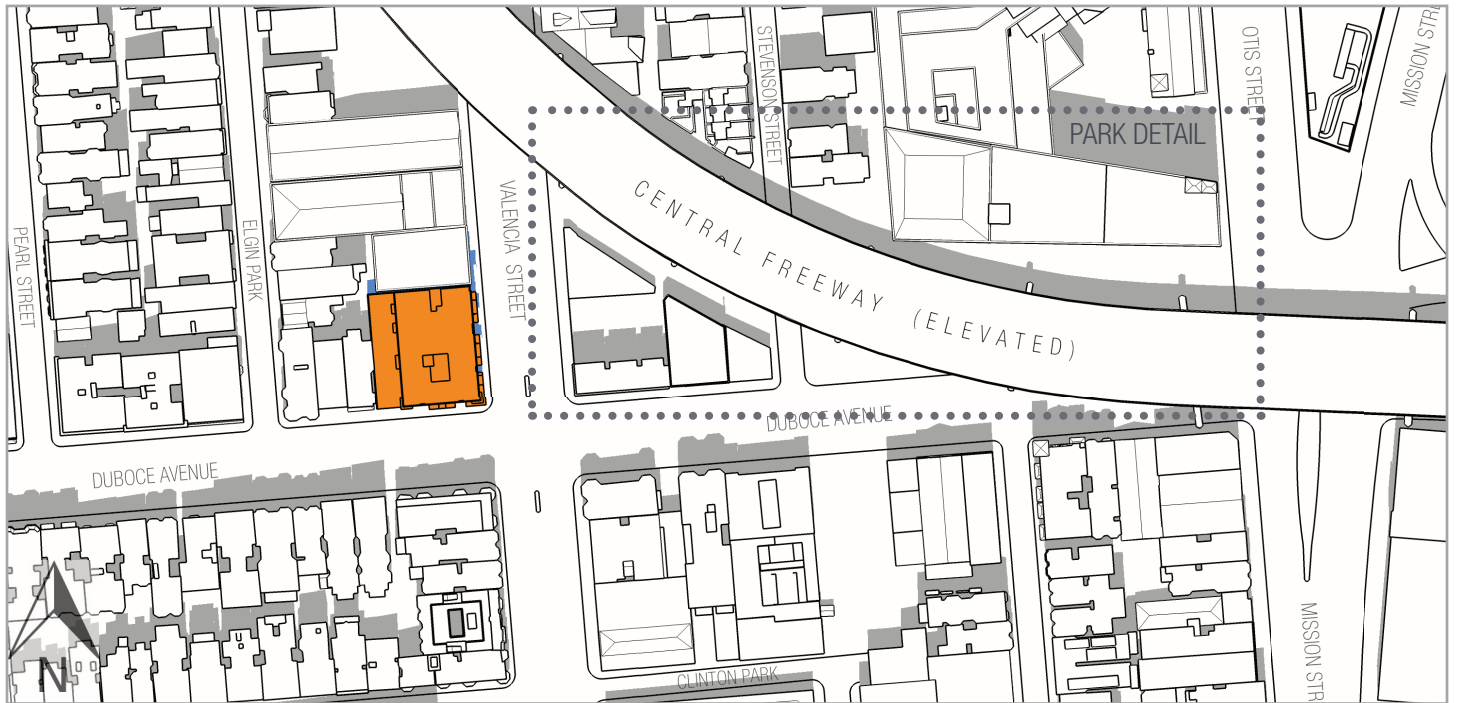
VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

12:00 PM

C1.7

198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox

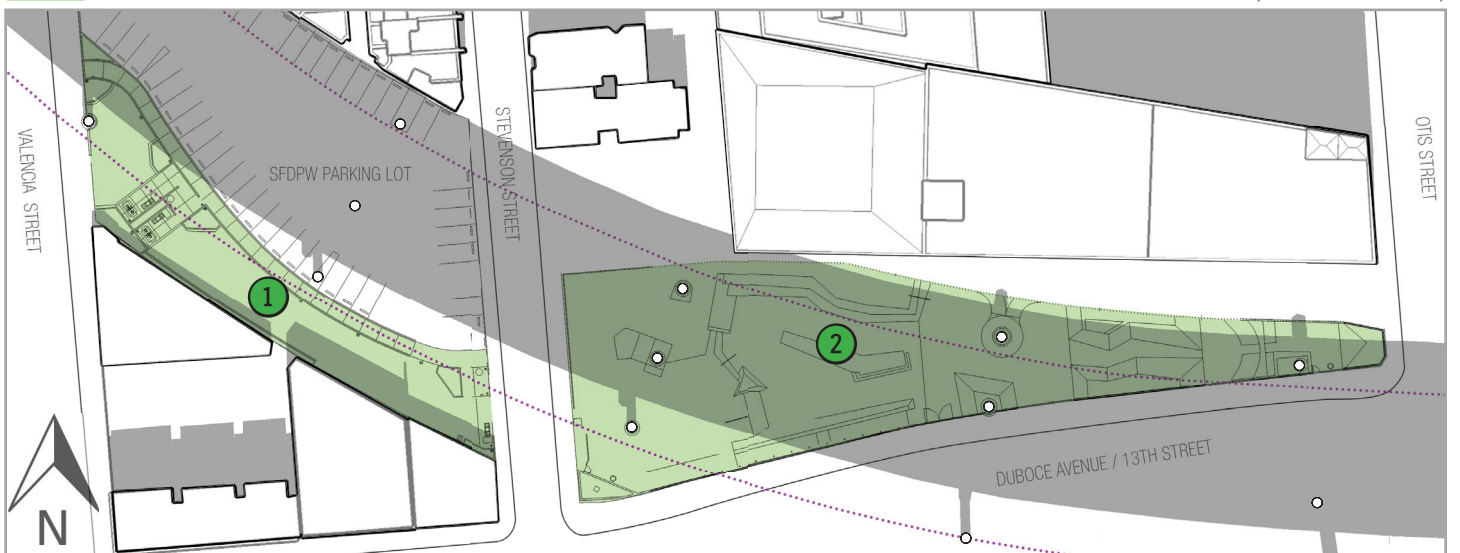


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

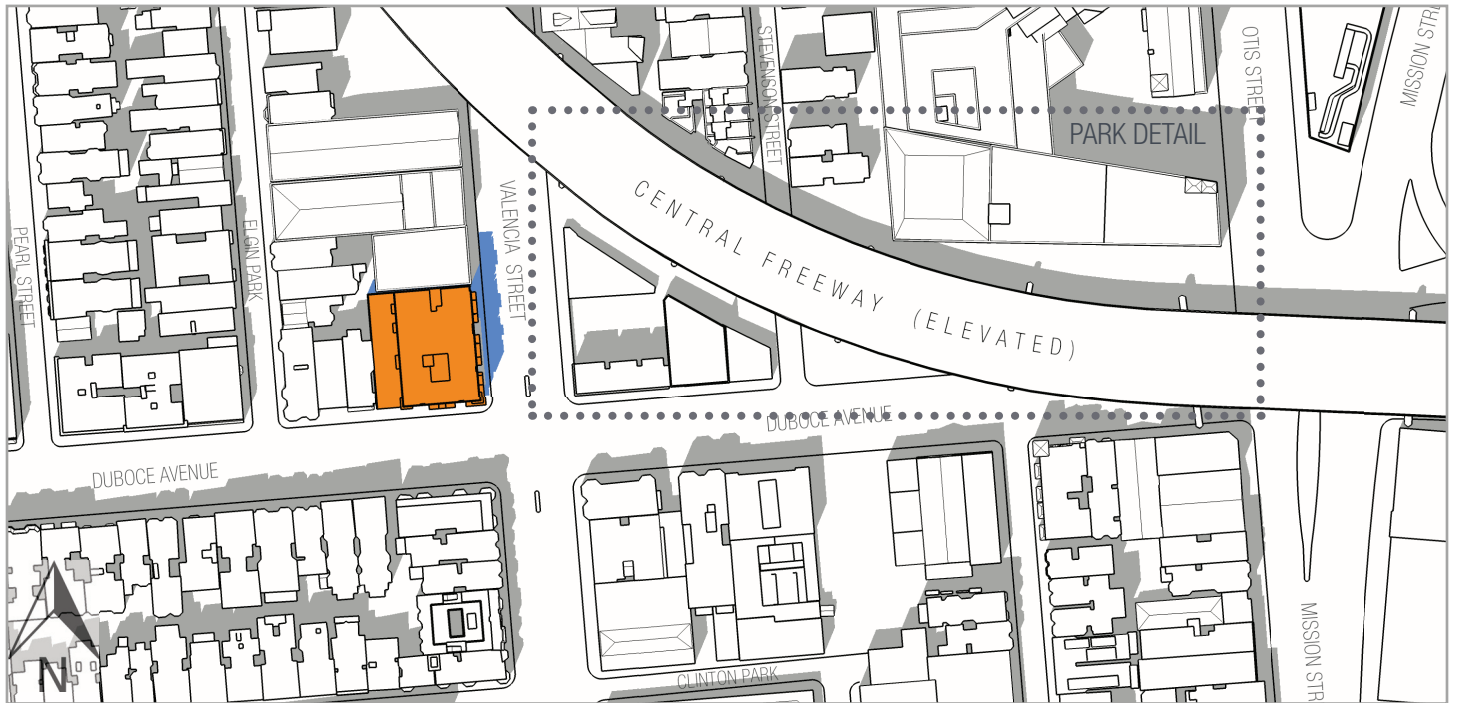
VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

1:00 PM

C1.8

198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox

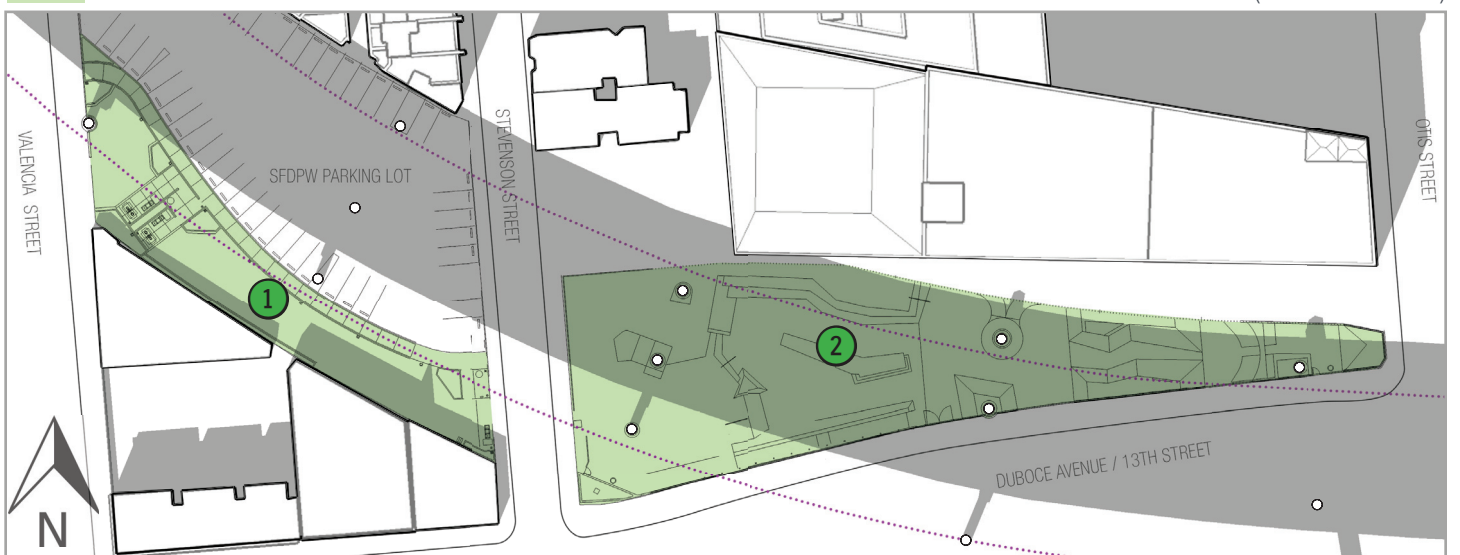


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

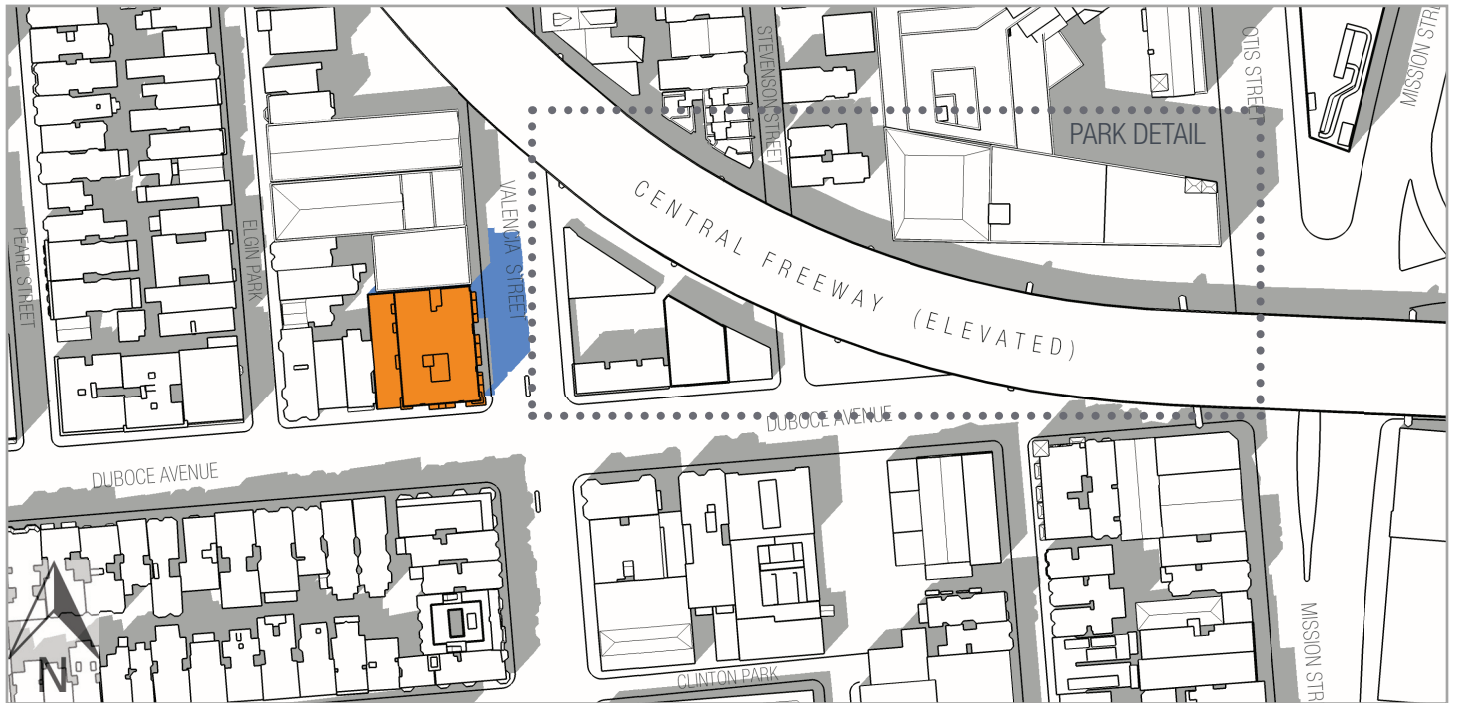
VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

2:00 PM

C1.9

198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox

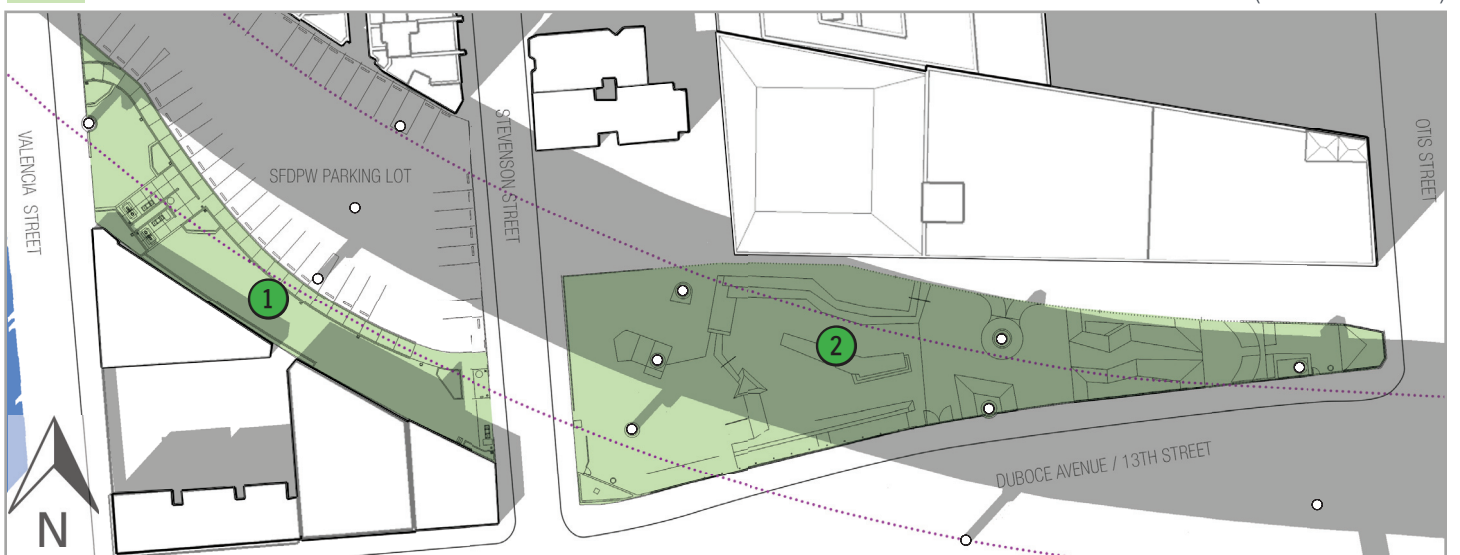


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



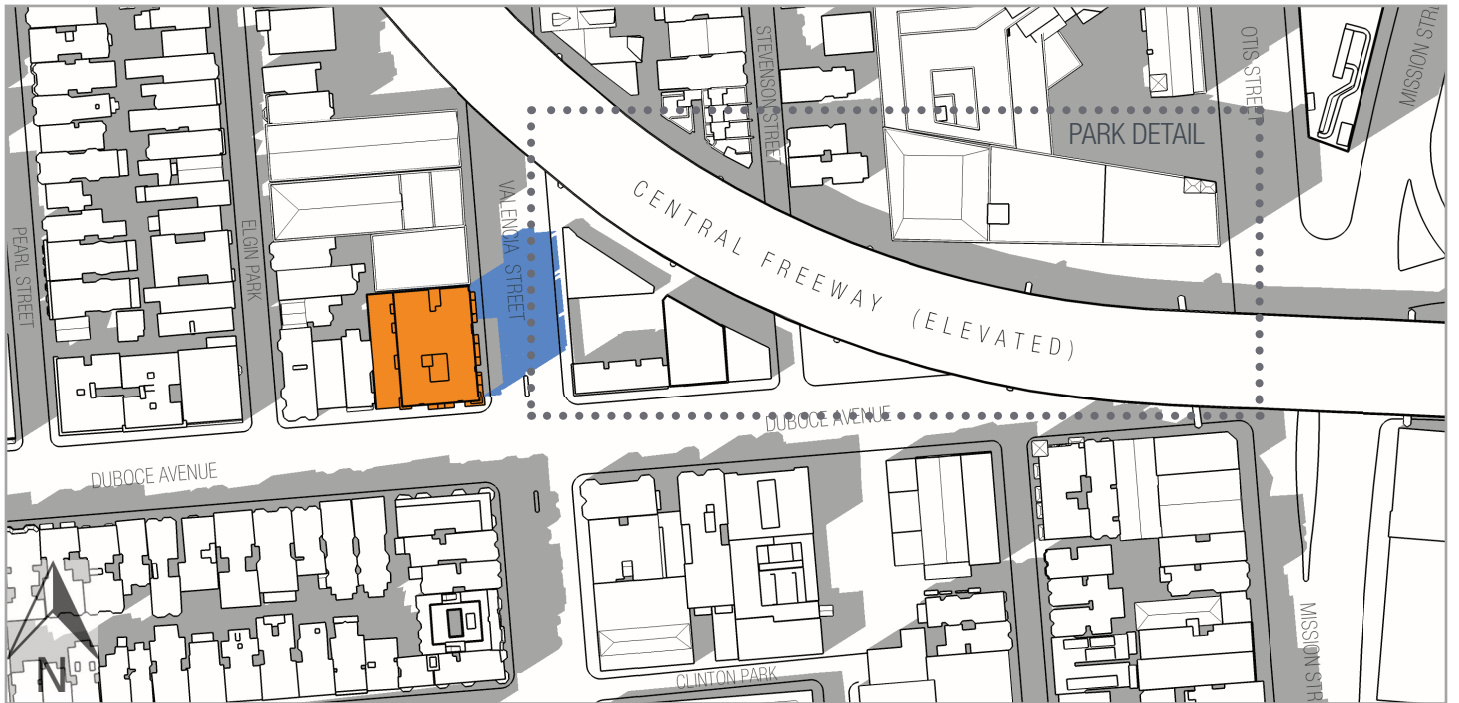
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

3:00 PM

C1.10 198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox

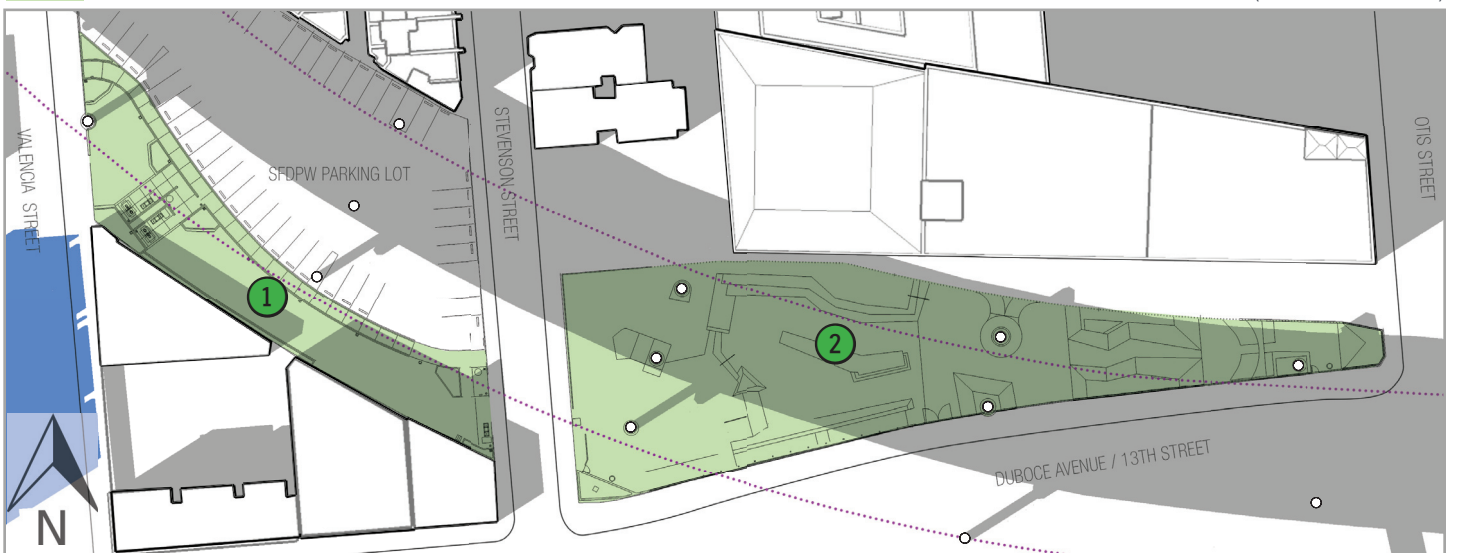


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



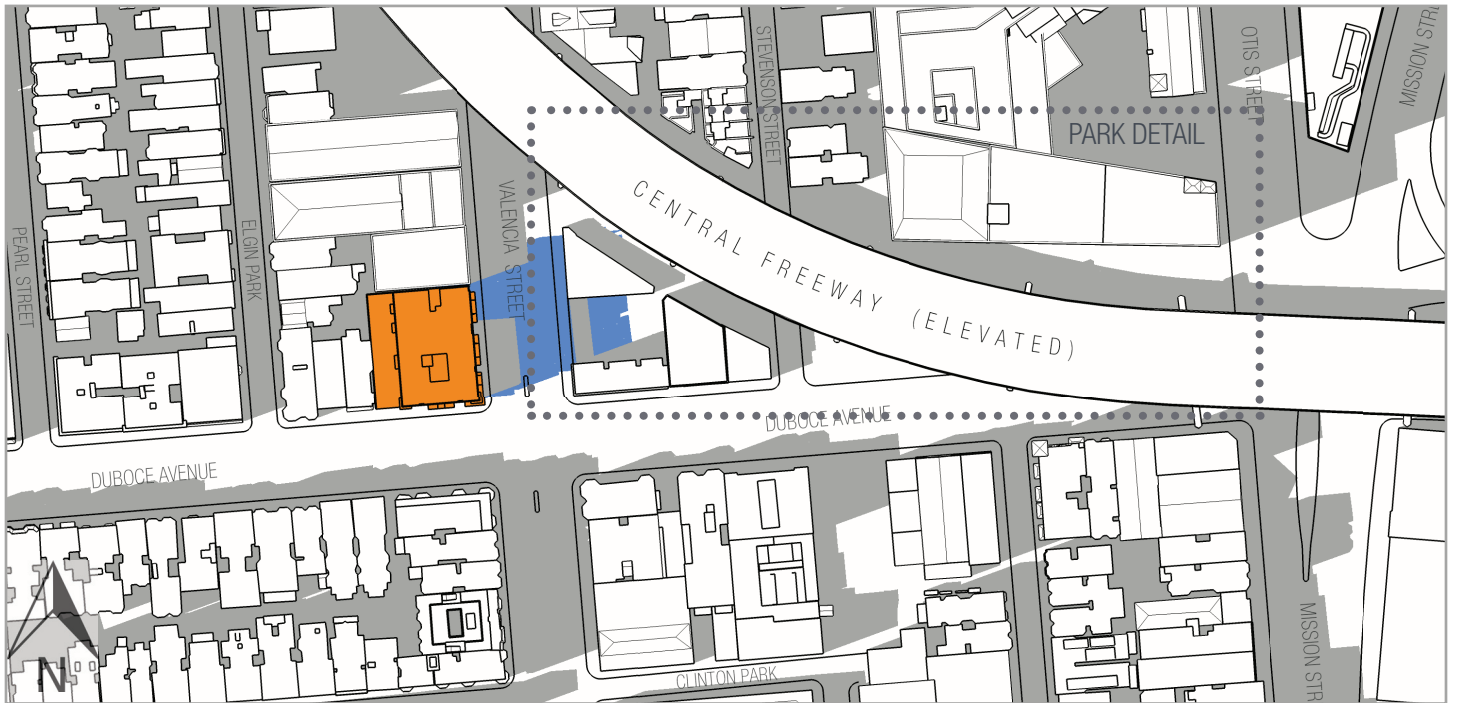
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

4:00 PM

C1.11 198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox

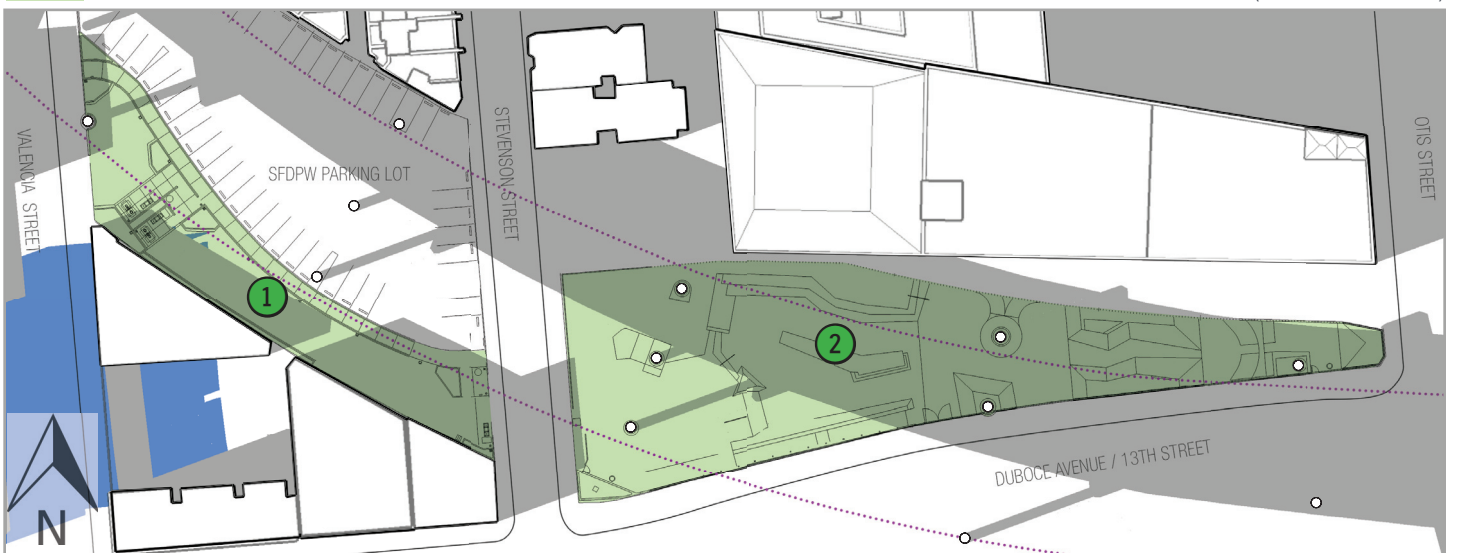


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



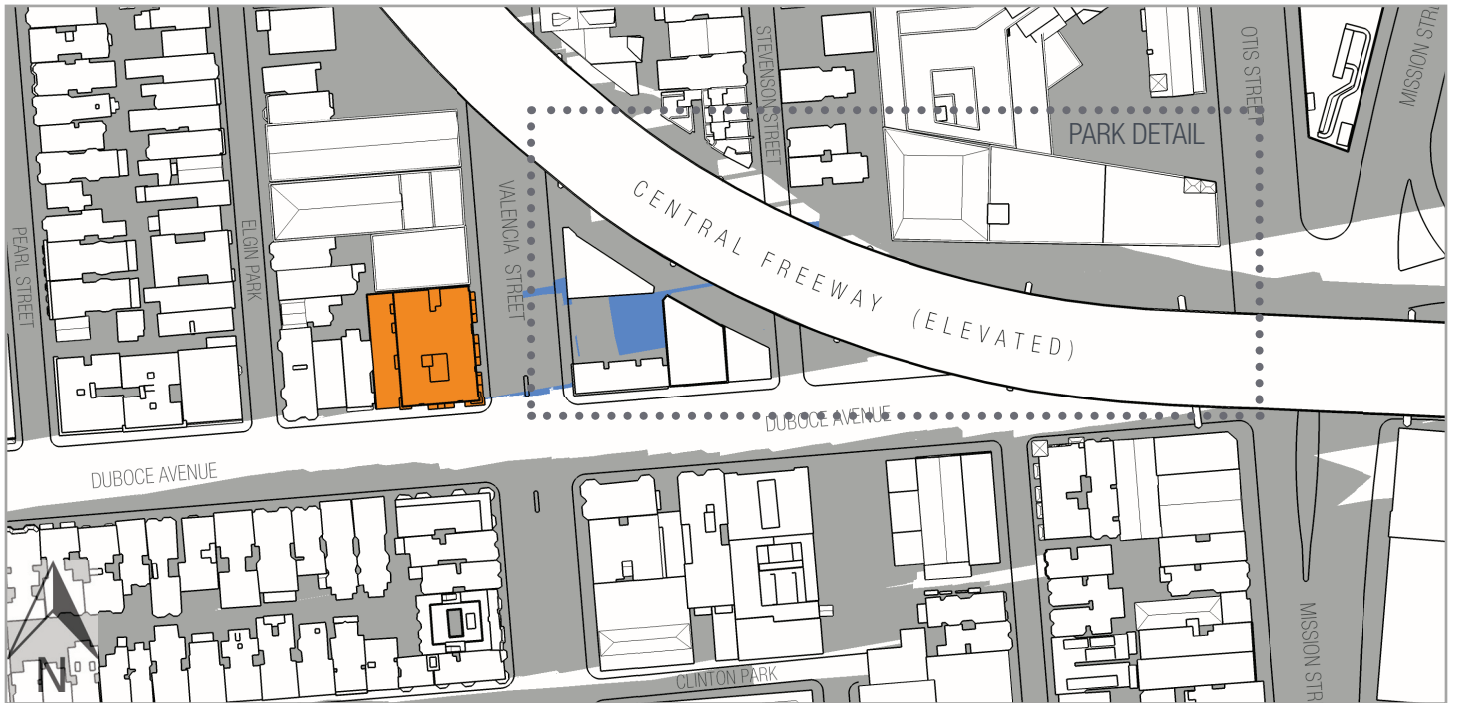
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

5:00 PM

C1.12 198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox

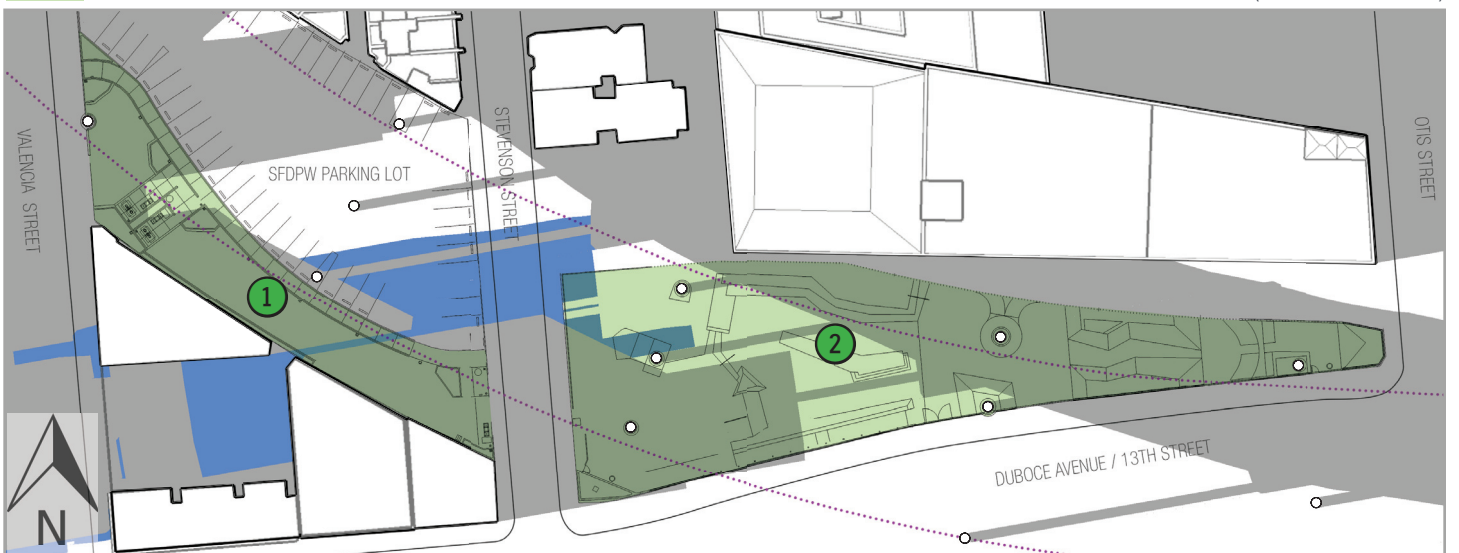


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



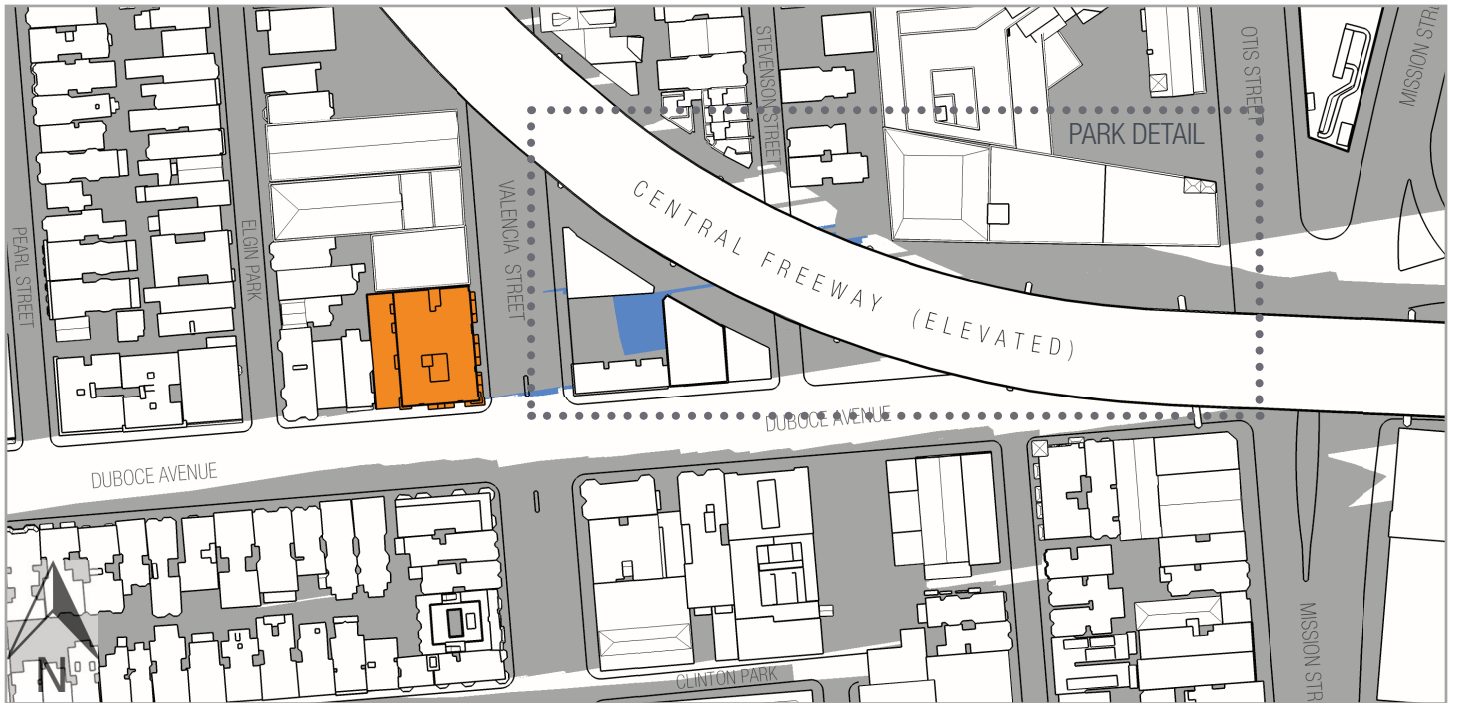
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

6:00 PM

C1.13 198 VALENCIA SHADOW STUDY

Shadow Profiles on Vernal/Autumnal Equinox

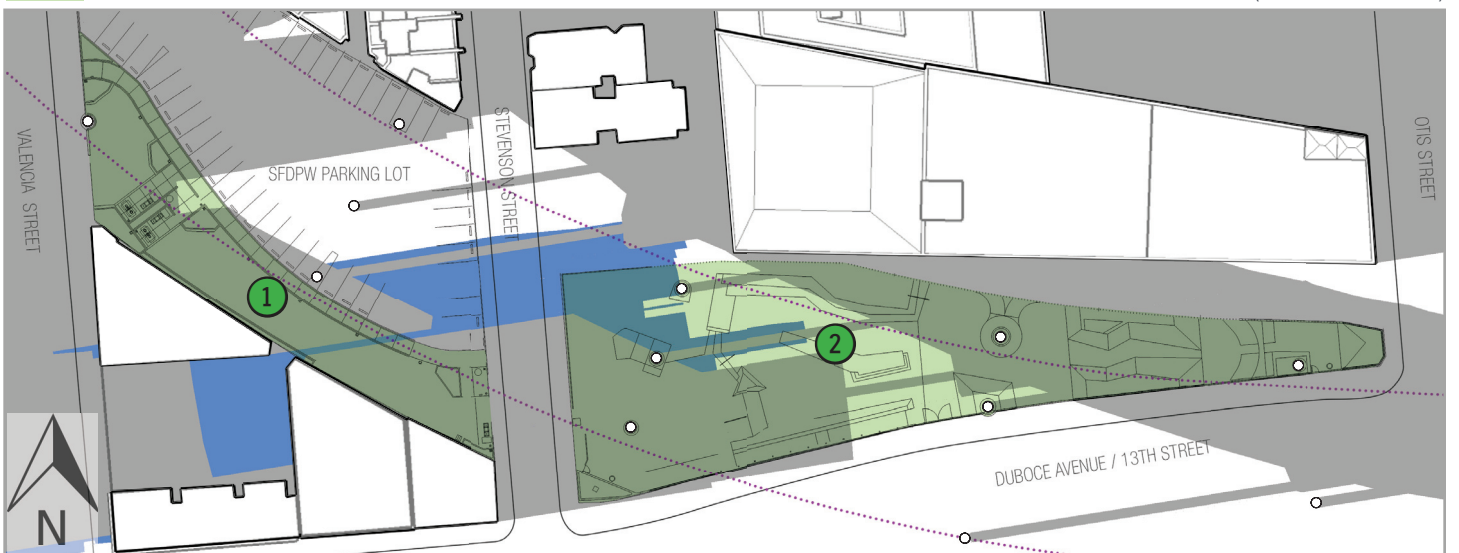


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

VERNAL/AUTUMNAL EQUINOX
MAR 20 / SEP 22

6:06 PM



EXHIBIT D: SHADOW DIAGRAMS ON WINTER SOLSTICE

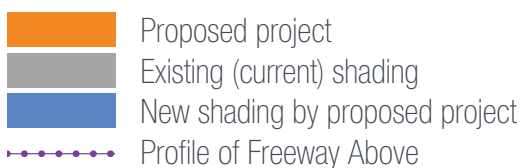
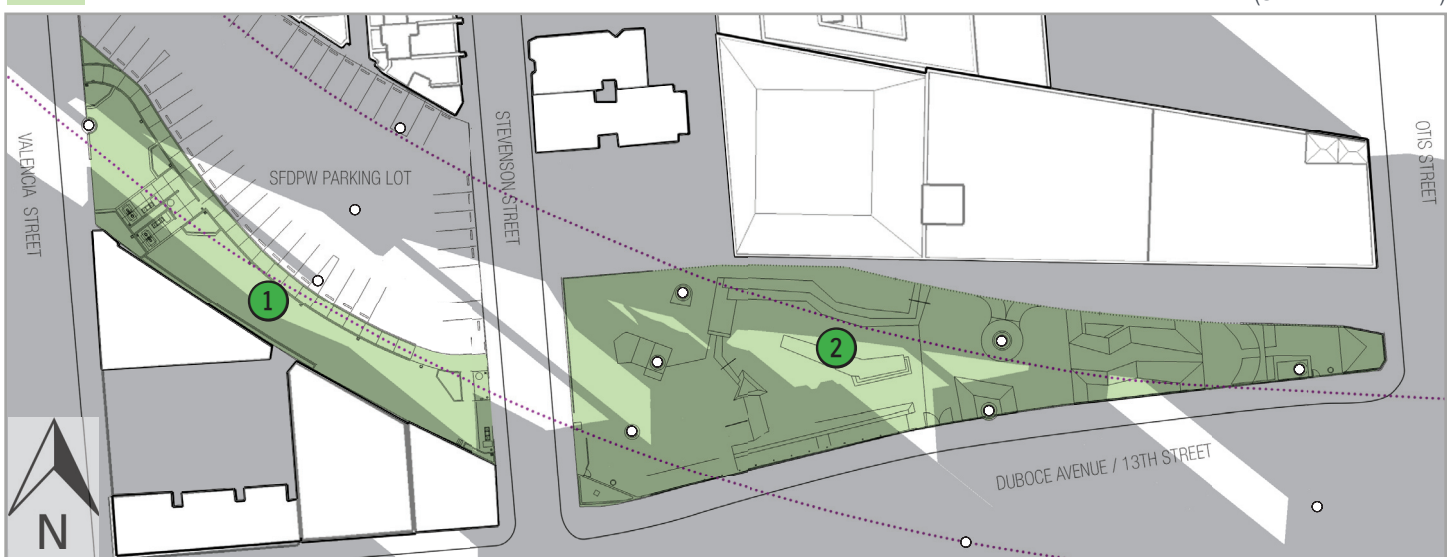
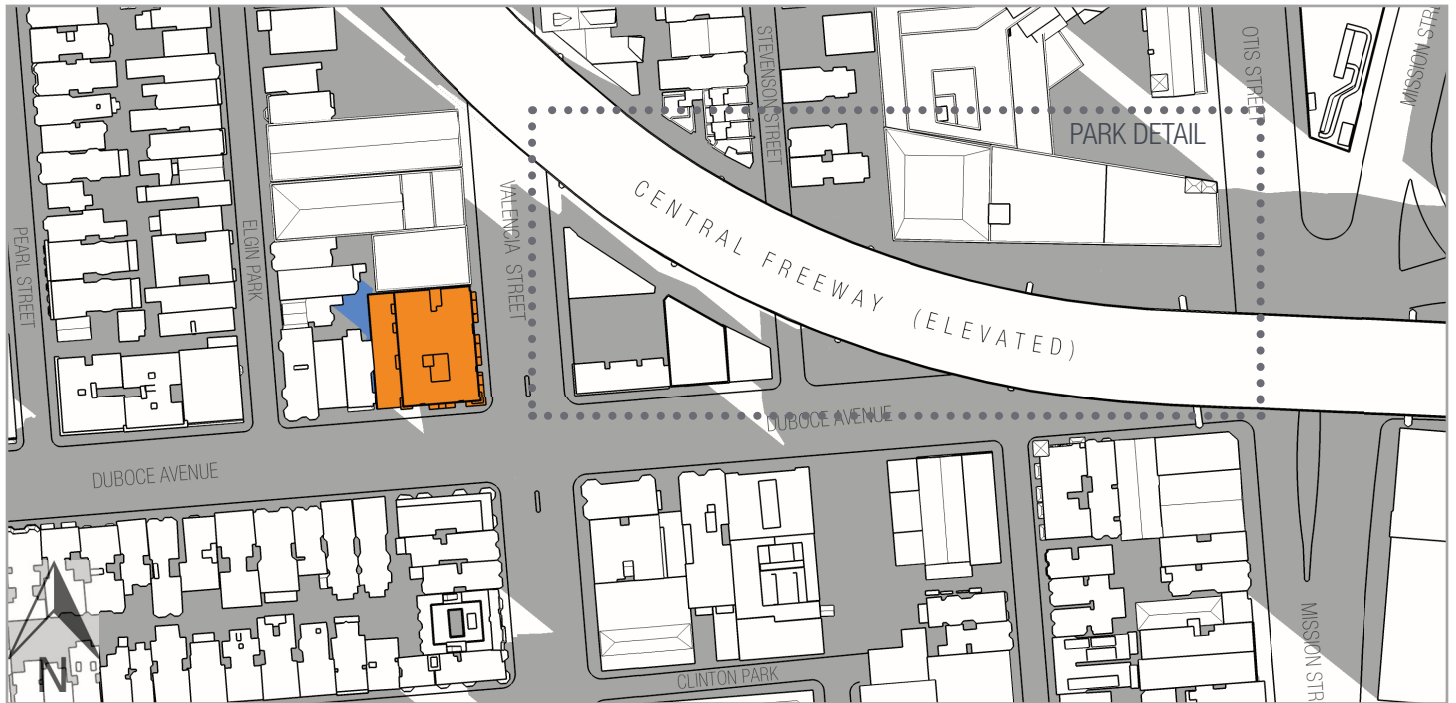
D1 - December 21

Diagrams at one hour intervals starting one hour after sunrise to one hour prior to sunset.

D1.1

198 VALENCIA SHADOW STUDY

Shadow Profiles on the Winter Solstice

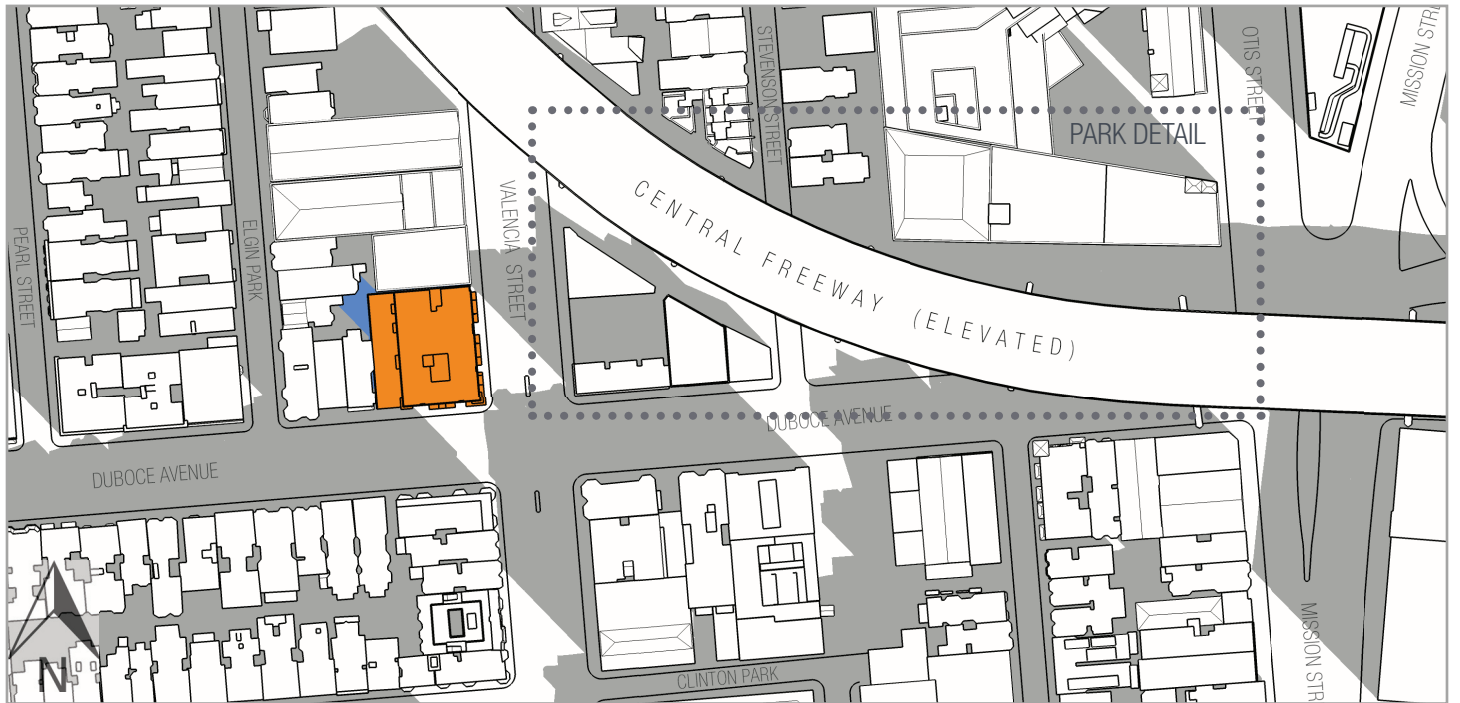


**WINTER SOLSTICE
DECEMBER 21**

8:22 AM

D1.2 198 VALENCIA SHADOW STUDY

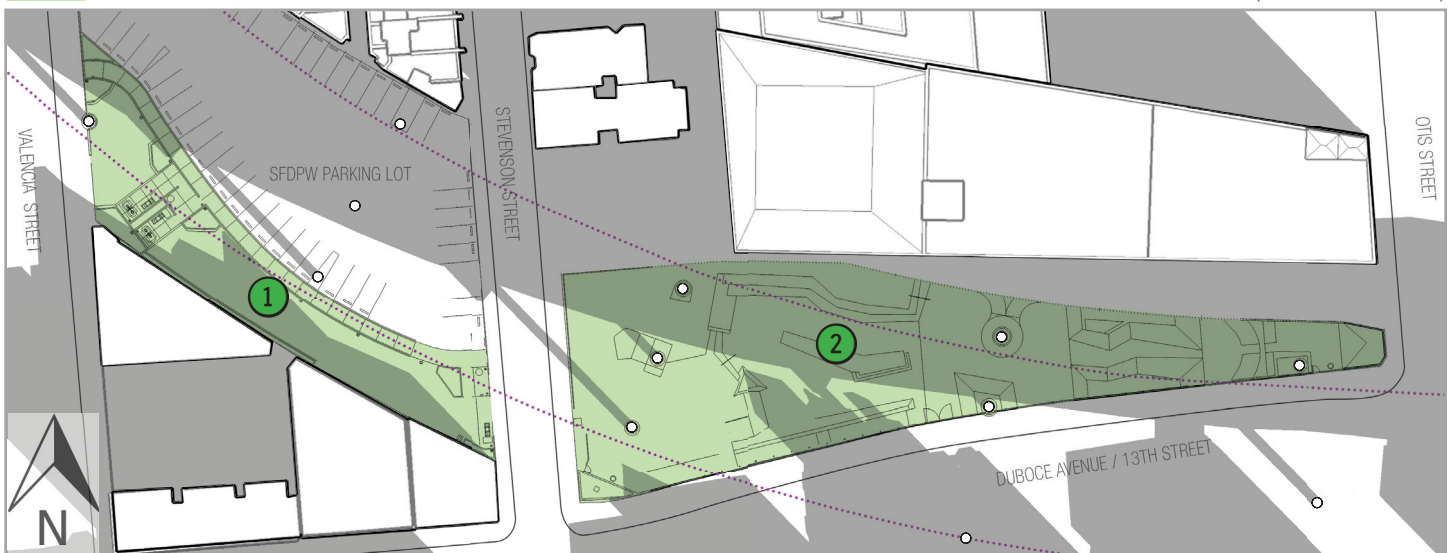
Shadow Profiles on the Winter Solstice



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

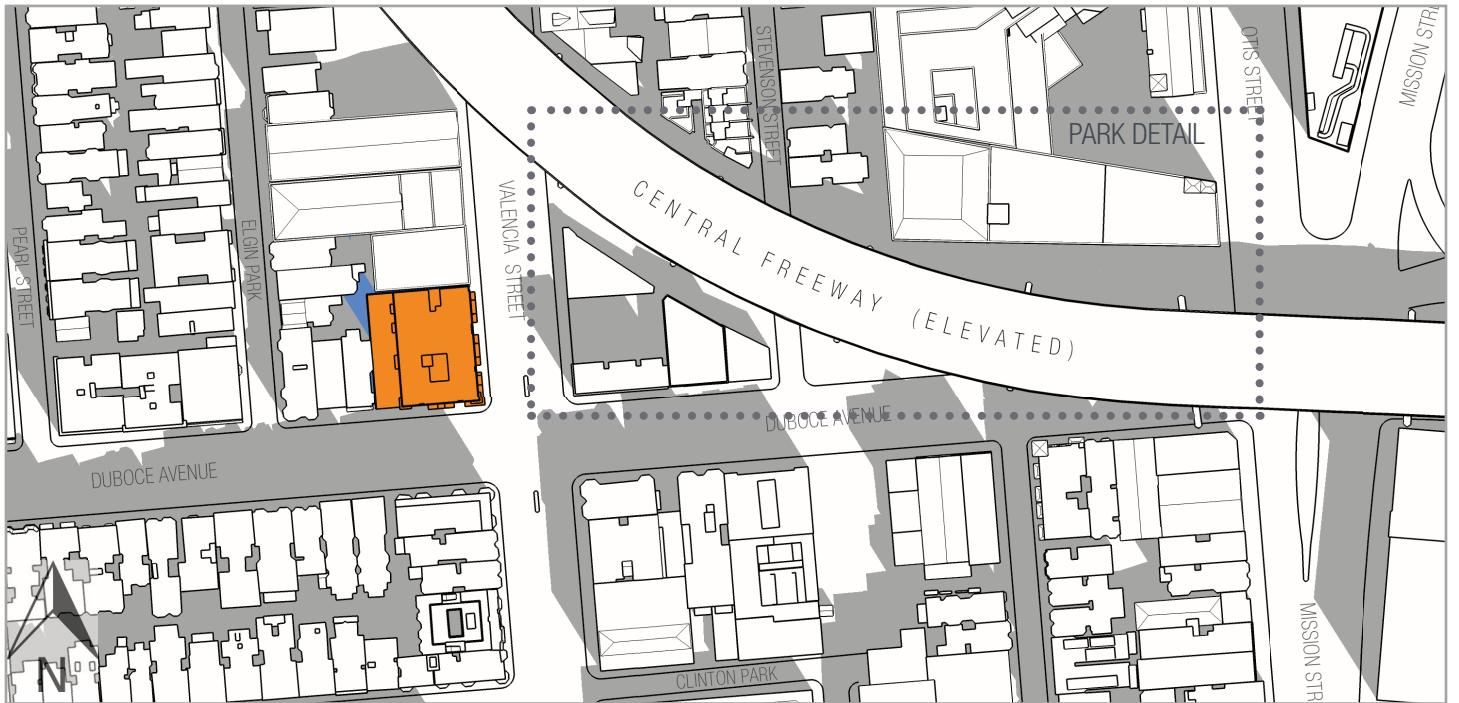
WINTER SOLSTICE
DECEMBER 21

9:00 AM

D1.3

198 VALENCIA SHADOW STUDY

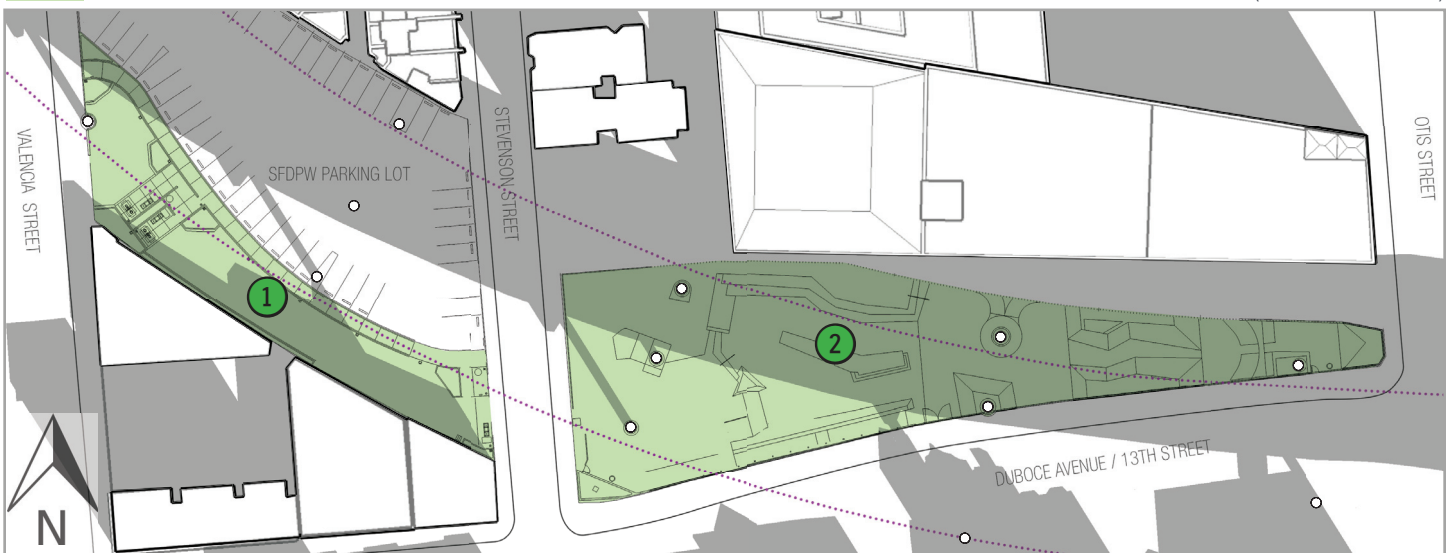
Shadow Profiles on the Winter Solstice



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

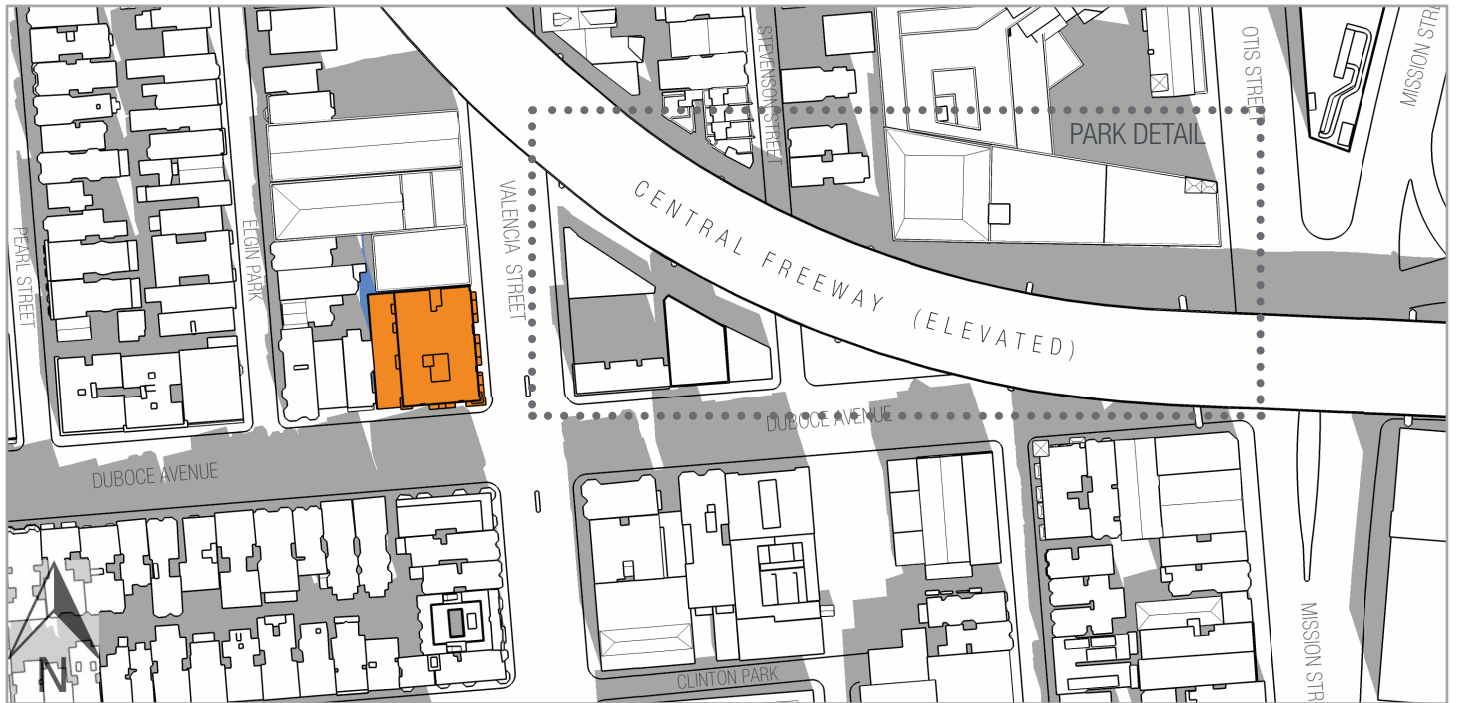
WINTER SOLSTICE
DECEMBER 21

10:00 AM

D1.4

198 VALENCIA SHADOW STUDY

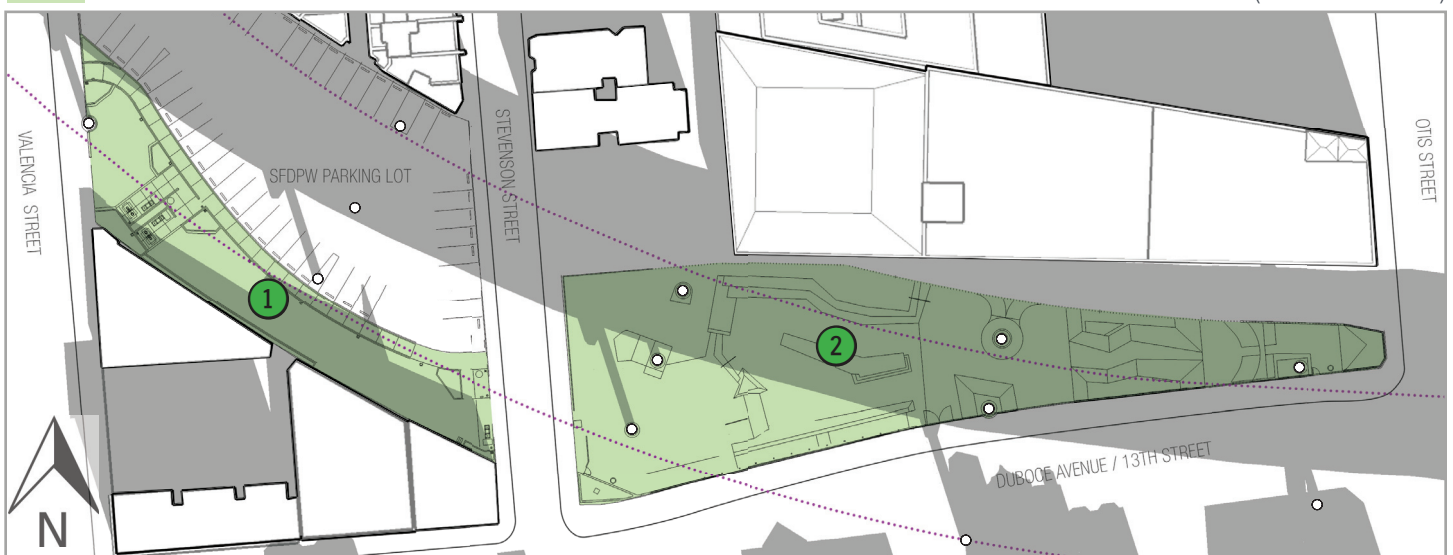
Shadow Profiles on the Winter Solstice



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

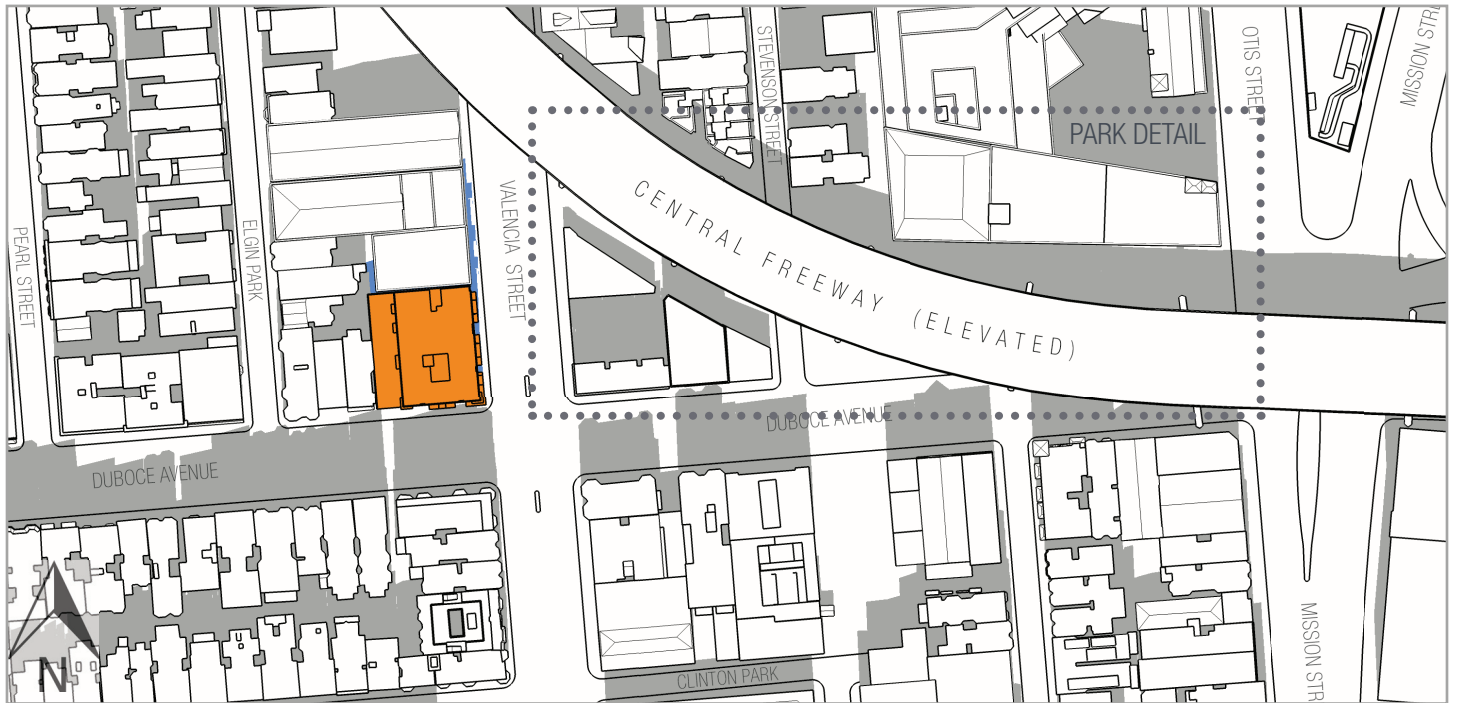
WINTER SOLSTICE
DECEMBER 21

11:00 AM

D1.5

198 VALENCIA SHADOW STUDY

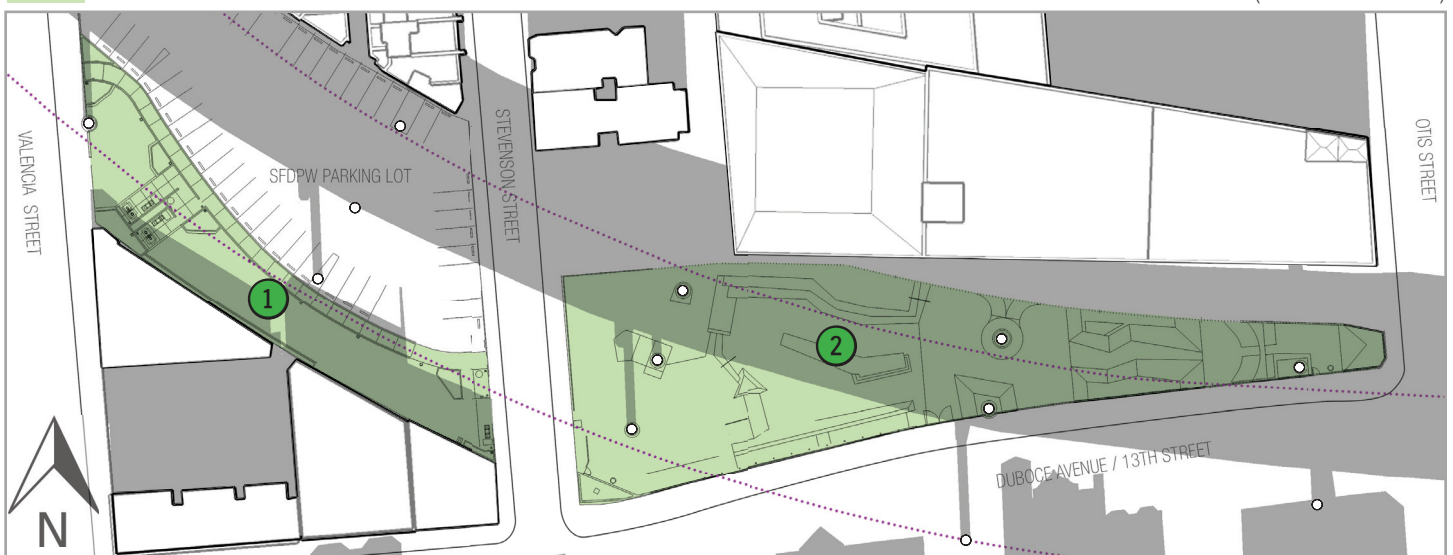
Shadow Profiles on the Winter Solstice



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

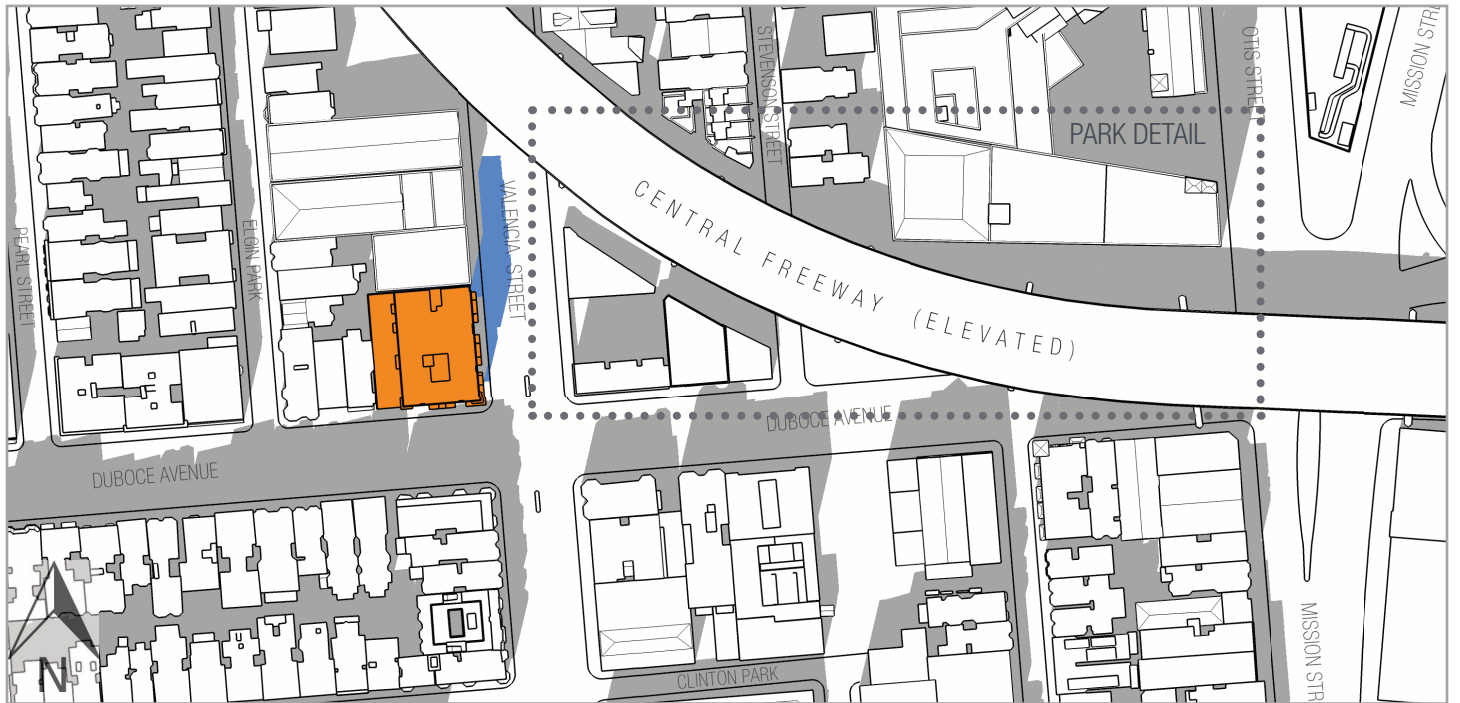
WINTER SOLSTICE
DECEMBER 21

12:00 PM

D1.6

198 VALENCIA SHADOW STUDY

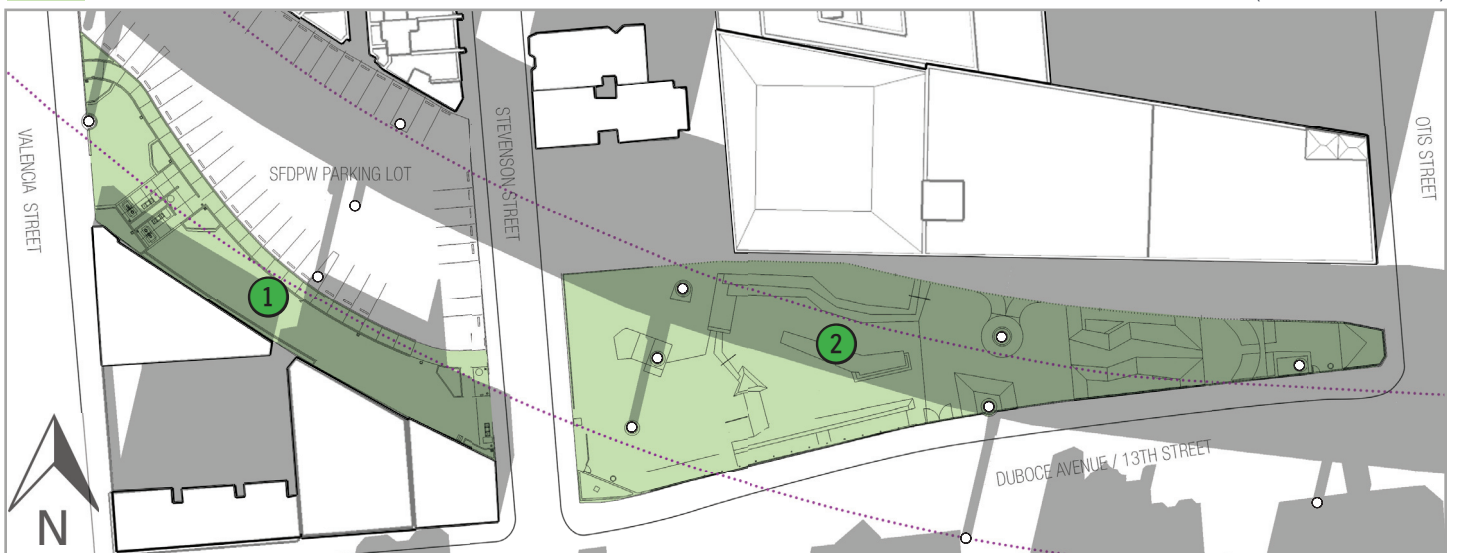
Shadow Profiles on the Winter Solstice



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

WINTER SOLSTICE
DECEMBER 21

1:00 PM

D1.7 198 VALENCIA SHADOW STUDY

Shadow Profiles on the Winter Solstice



AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

WINTER SOLSTICE
DECEMBER 21

2:00 PM

D1.8

198 VALENCIA SHADOW STUDY

Shadow Profiles on the Winter Solstice

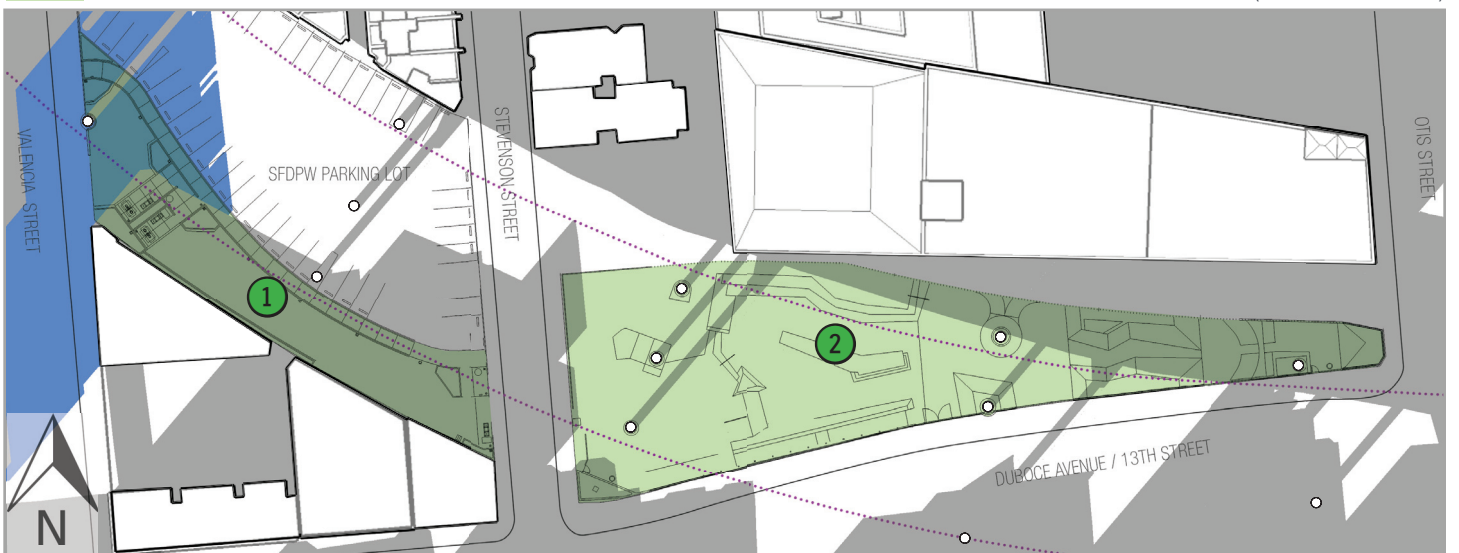


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

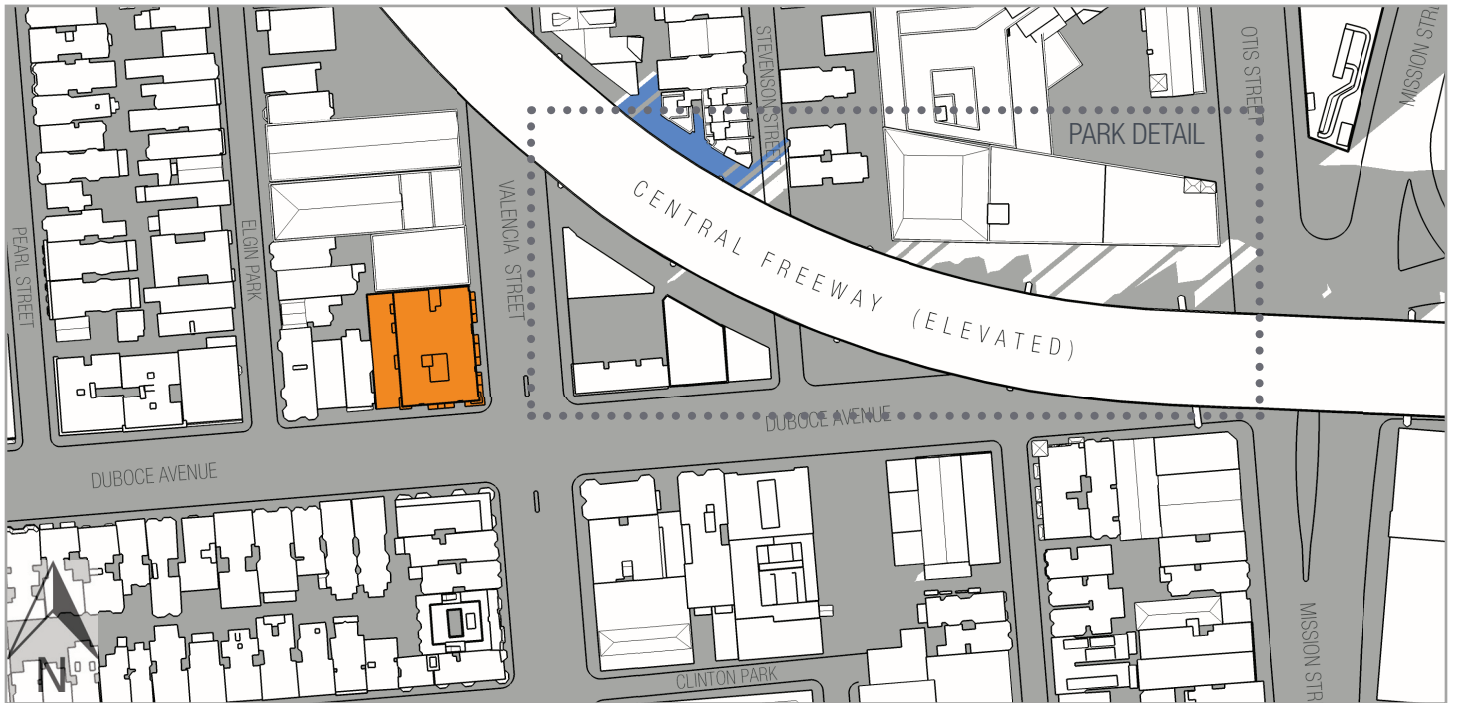
WINTER SOLSTICE
DECEMBER 21

3:00 PM

D1.9

198 VALENCIA SHADOW STUDY

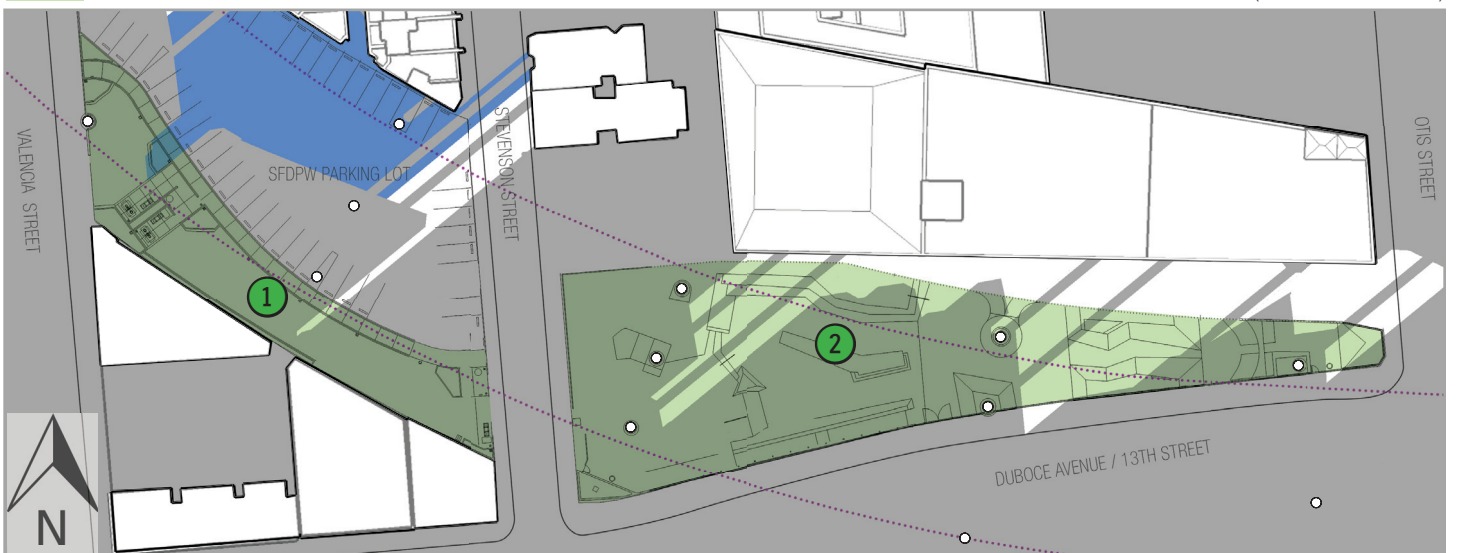
Shadow Profiles on the Winter Solstice



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

WINTER SOLSTICE
DECEMBER 21

3:55 PM

An aerial, isometric view of a city block. Buildings are represented as white 3D blocks of varying heights and shapes. Long, dark grey shadows are cast from the buildings, primarily from the upper left towards the lower right, indicating a low sun position. The shadows fill the spaces between buildings and cover parts of the building surfaces. The overall scene is a technical architectural visualization of urban shadow patterns.

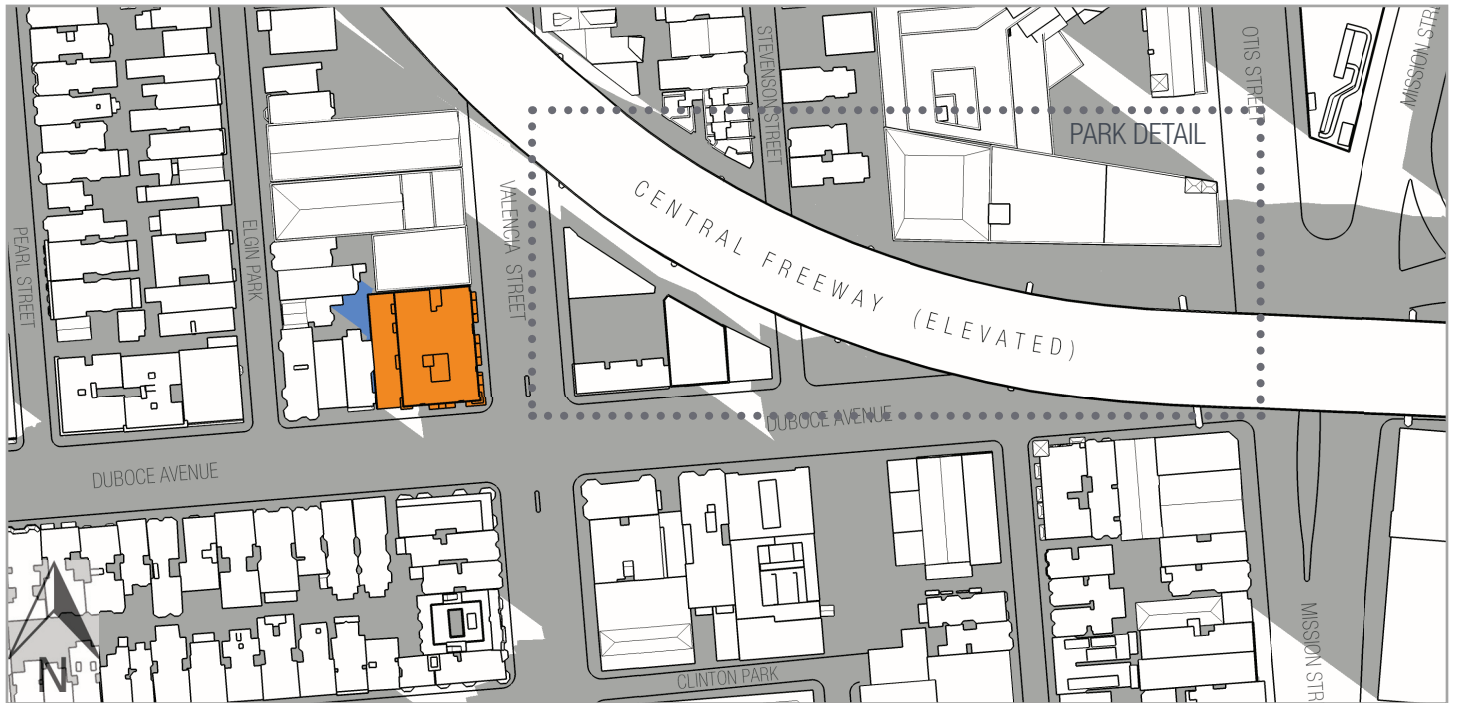
EXHIBIT E1: DAY OF MAXIMUM NEW SHADING ON SOMA WEST DOG PARK

November 29 (January 12 similar)

Diagrams at one hour intervals starting one hour after sunrise to one hour prior to sunset, and at 15-minute intervals when new shadow is present.

E1.1 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park

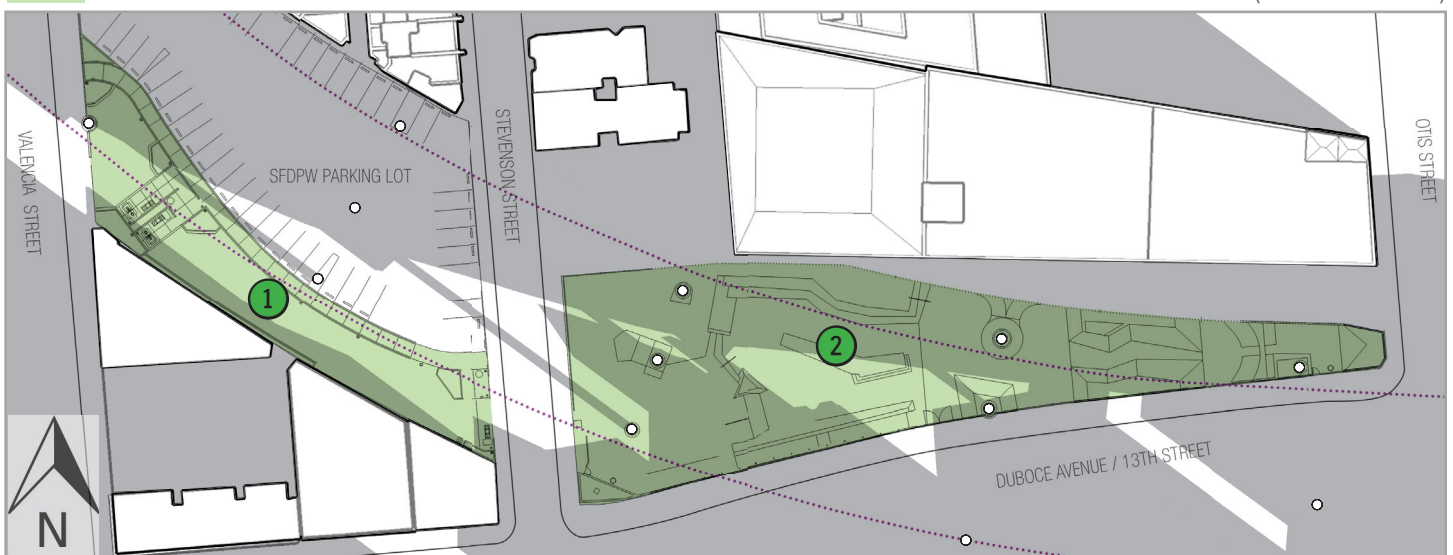


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

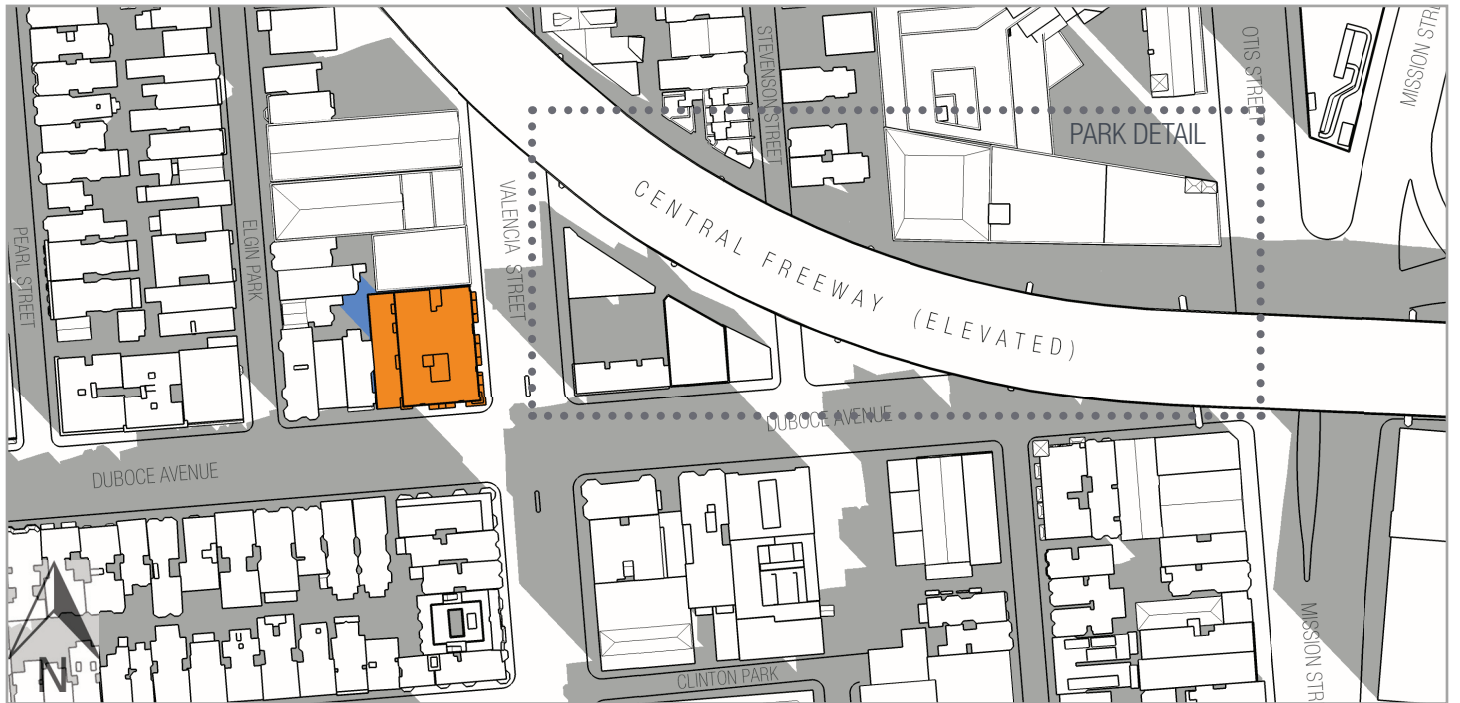
DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

8:05 AM

E1.2

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park



AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

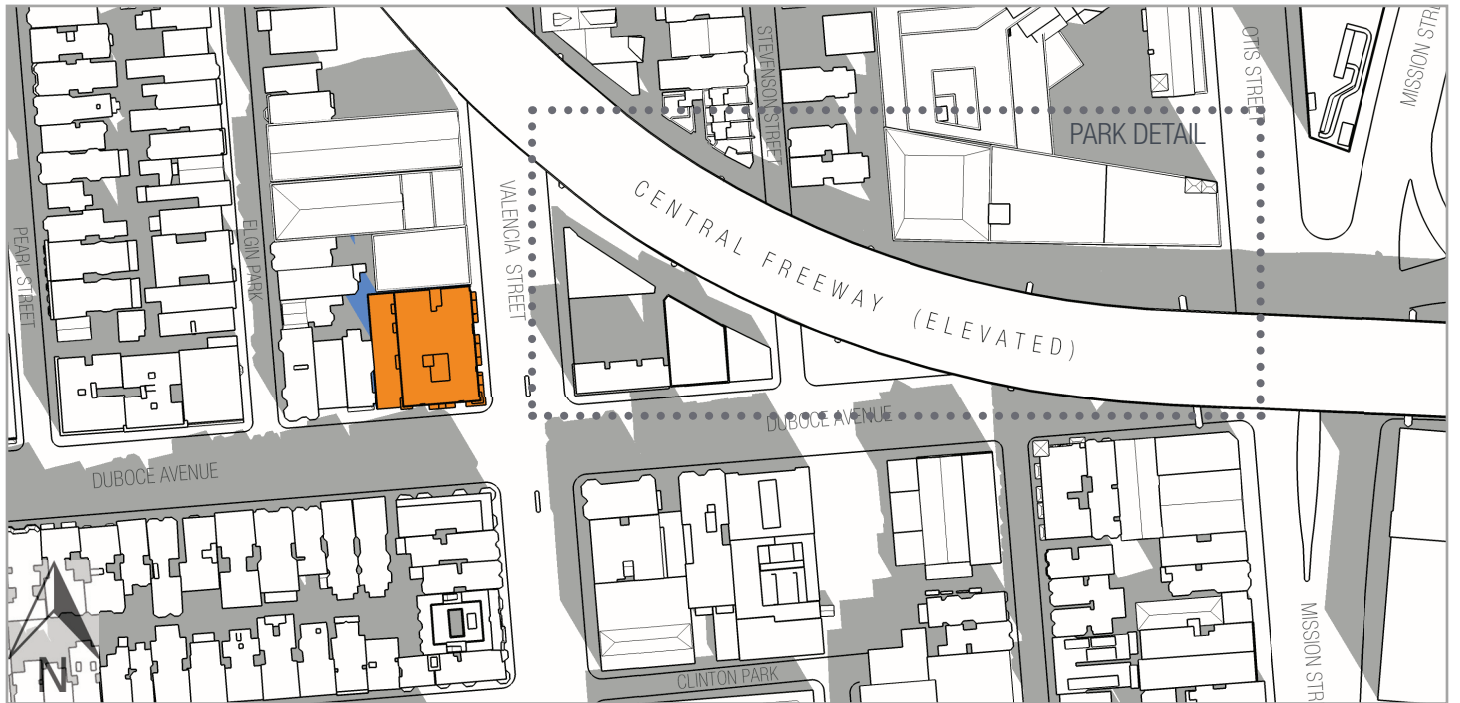
DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

9:00 AM

E1.3

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park



AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

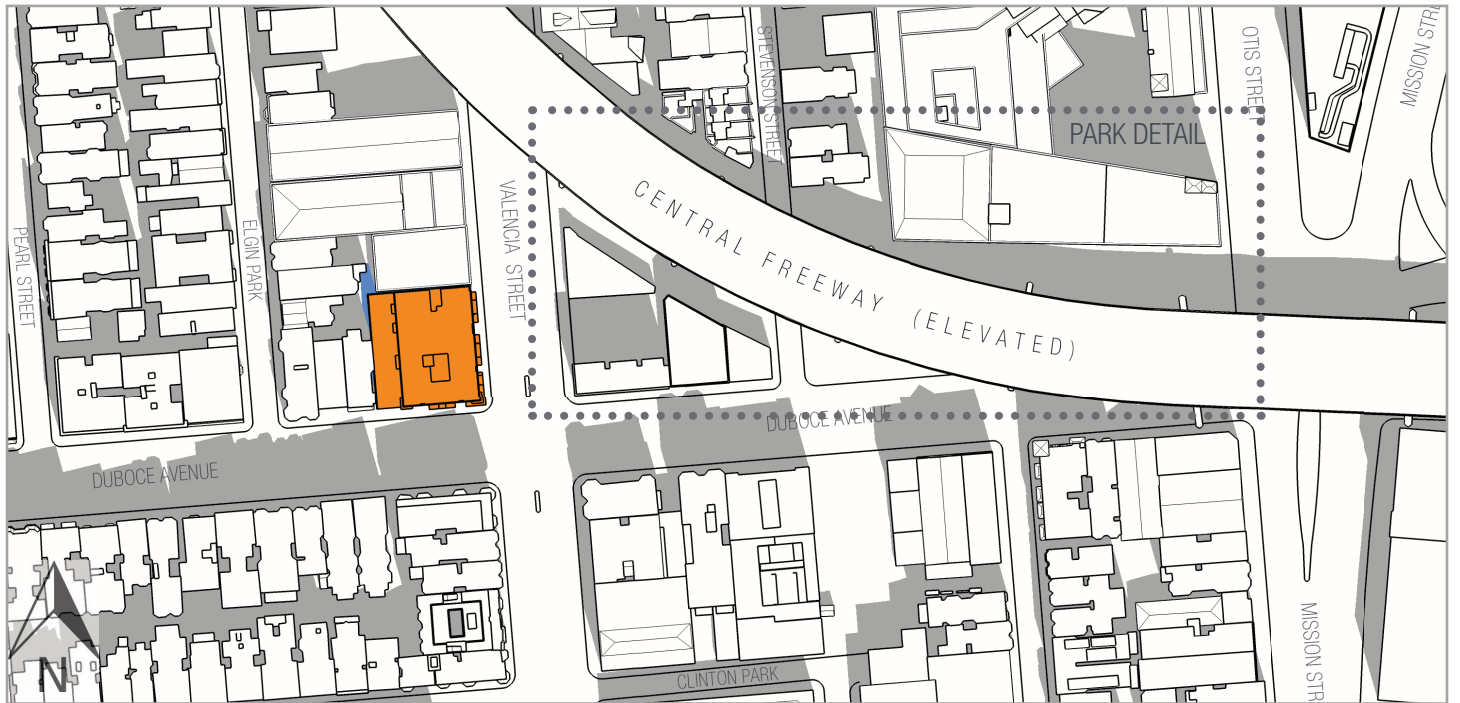
DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

10:00 AM

E1.4

198 VALENCIA SHADOW STUDY

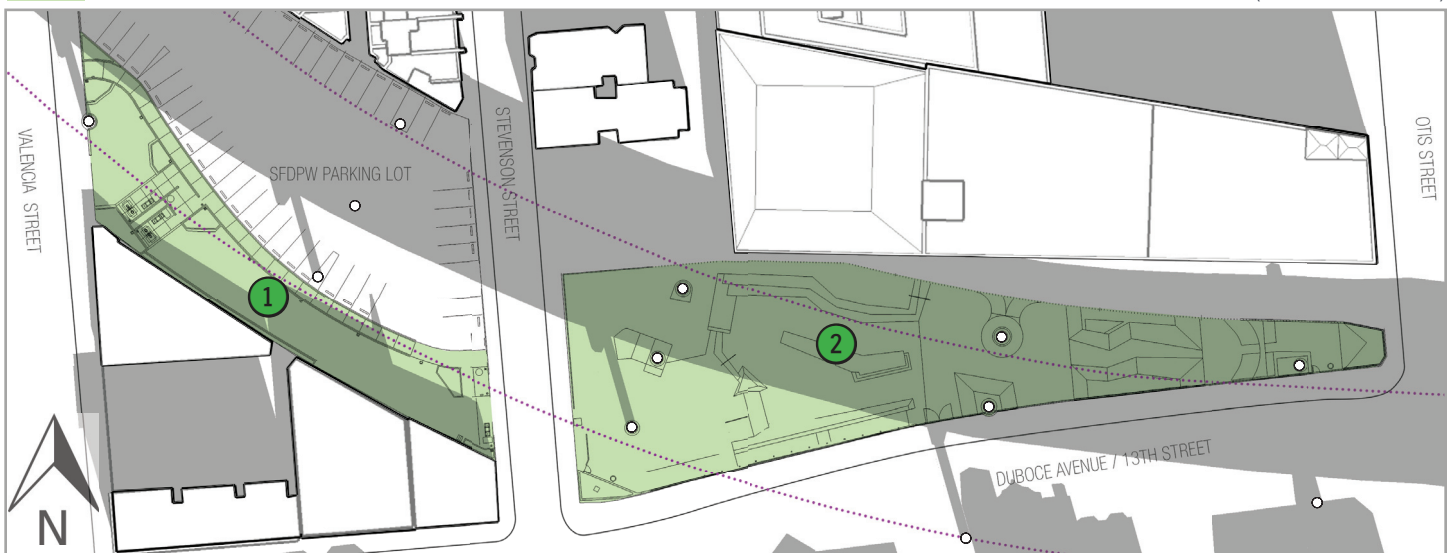
Shadow Profiles on the dates of maximum shading on Dog Park



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

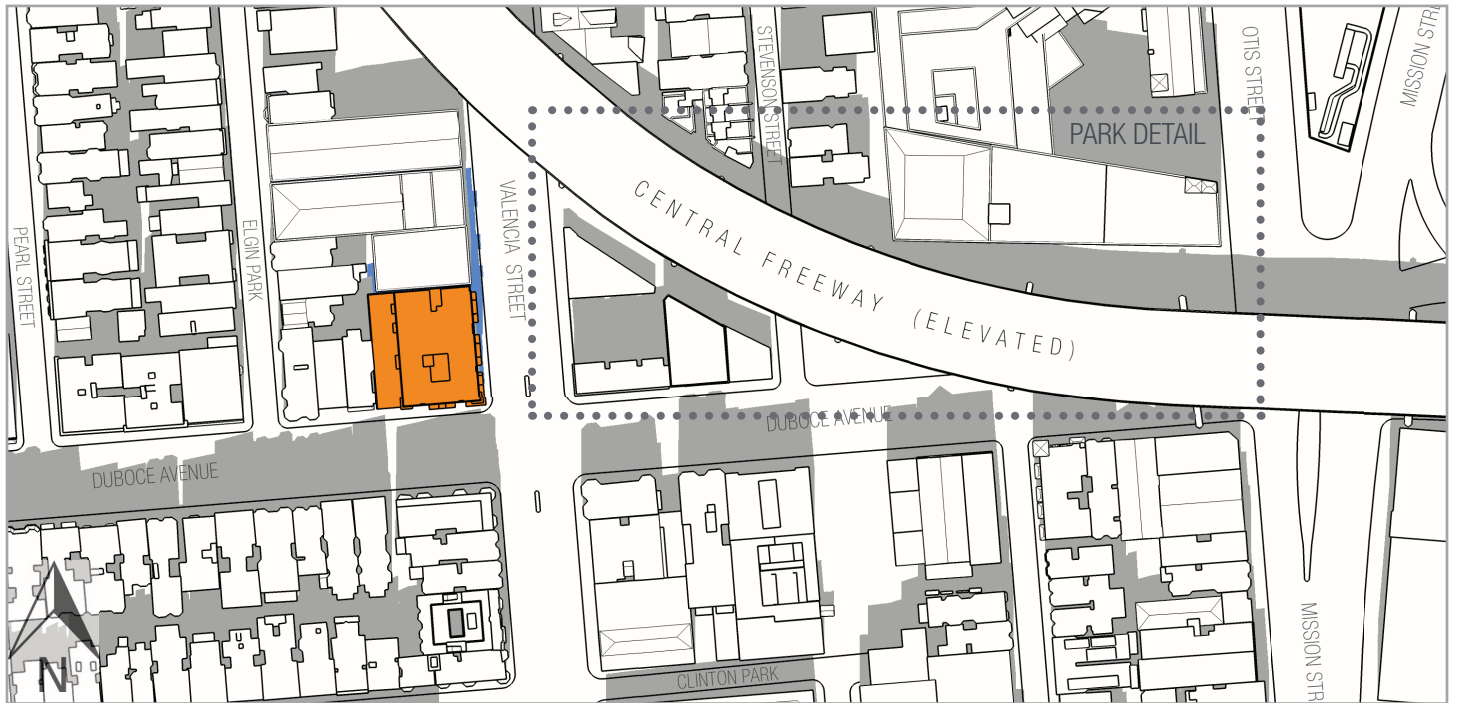
DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

11:00 AM

E1.5

198 VALENCIA SHADOW STUDY

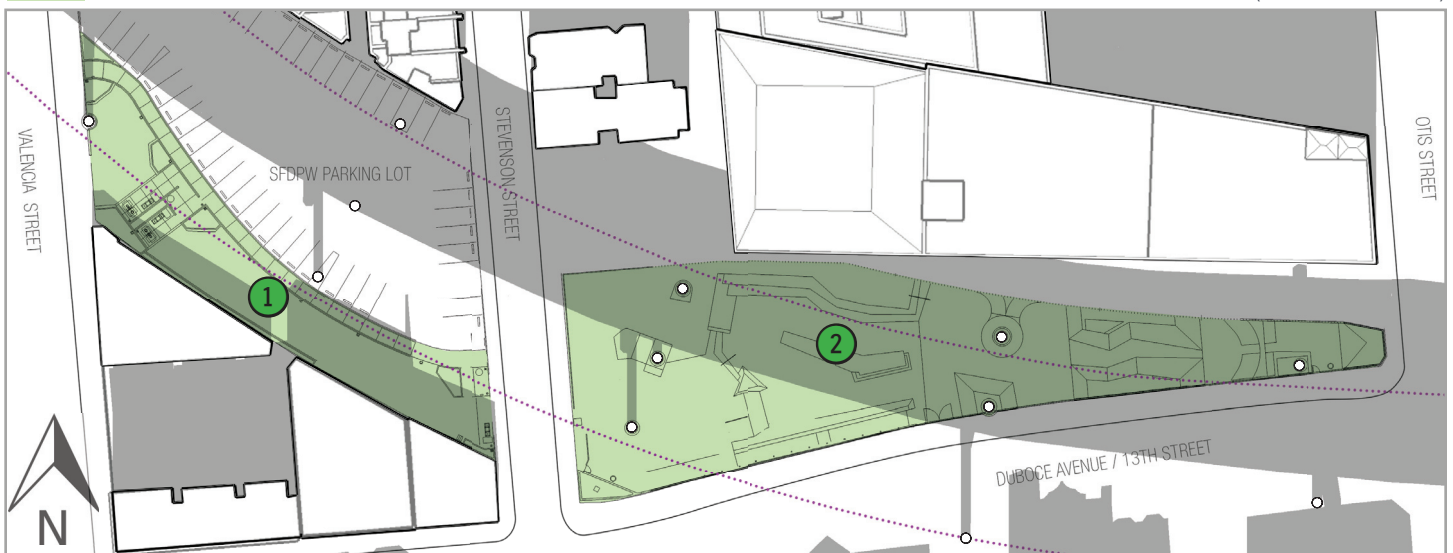
Shadow Profiles on the dates of maximum shading on Dog Park



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

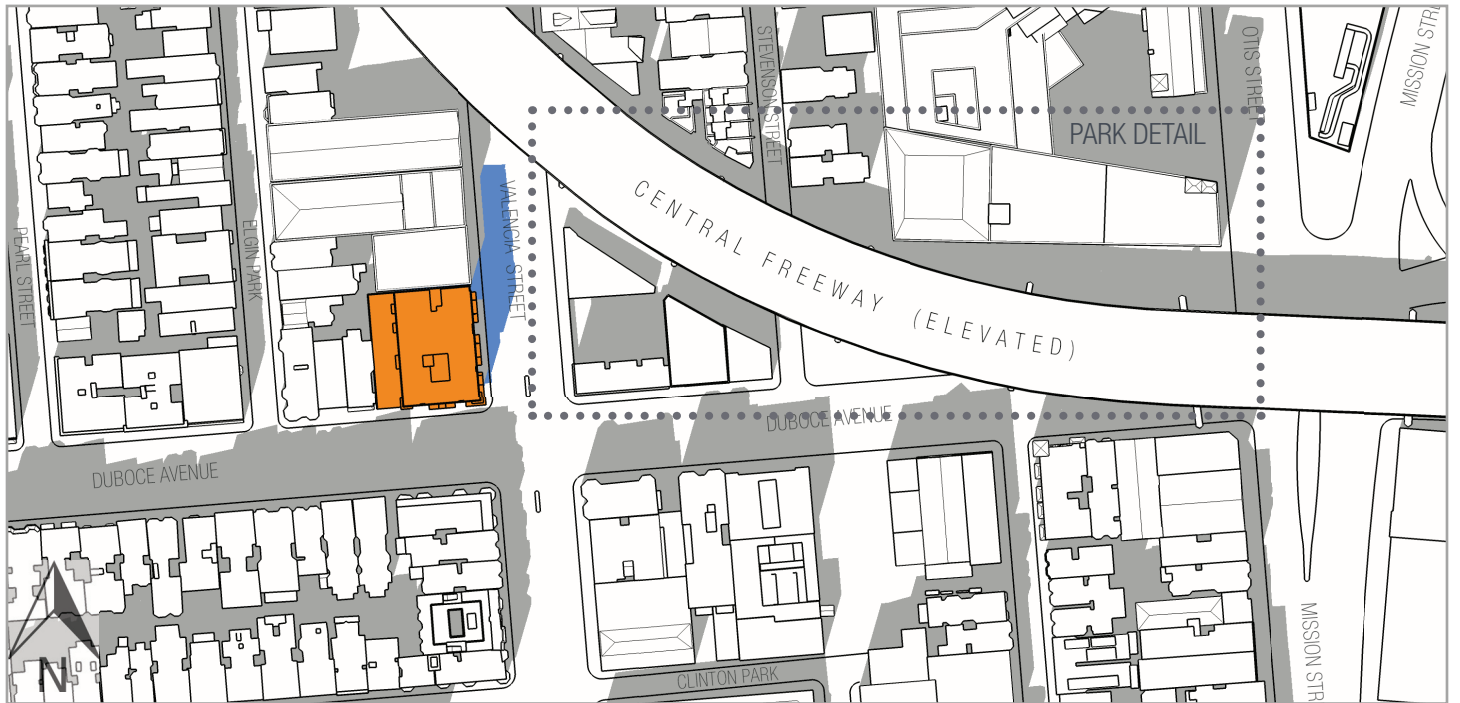
DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

12:00 PM

E1.6

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park



AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

1:00 PM

E1.7 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park

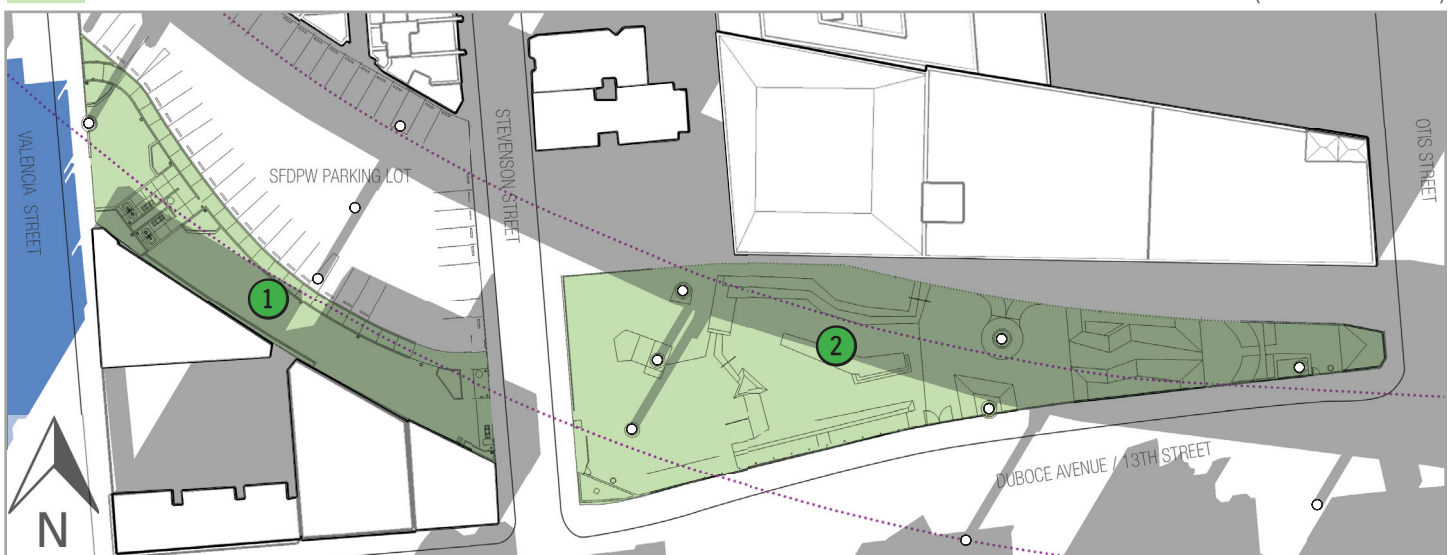


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

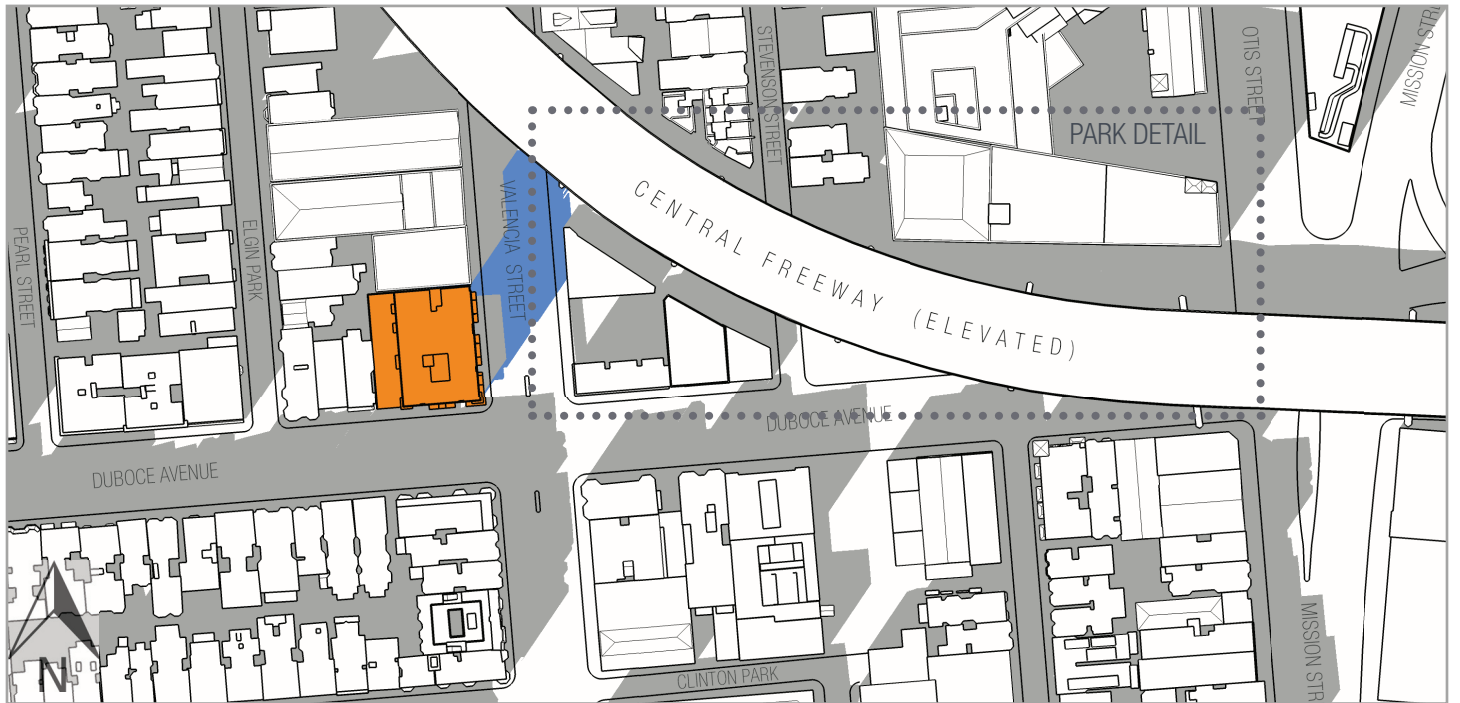
DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

2:00 PM

E1.8

198 VALENCIA SHADOW STUDY

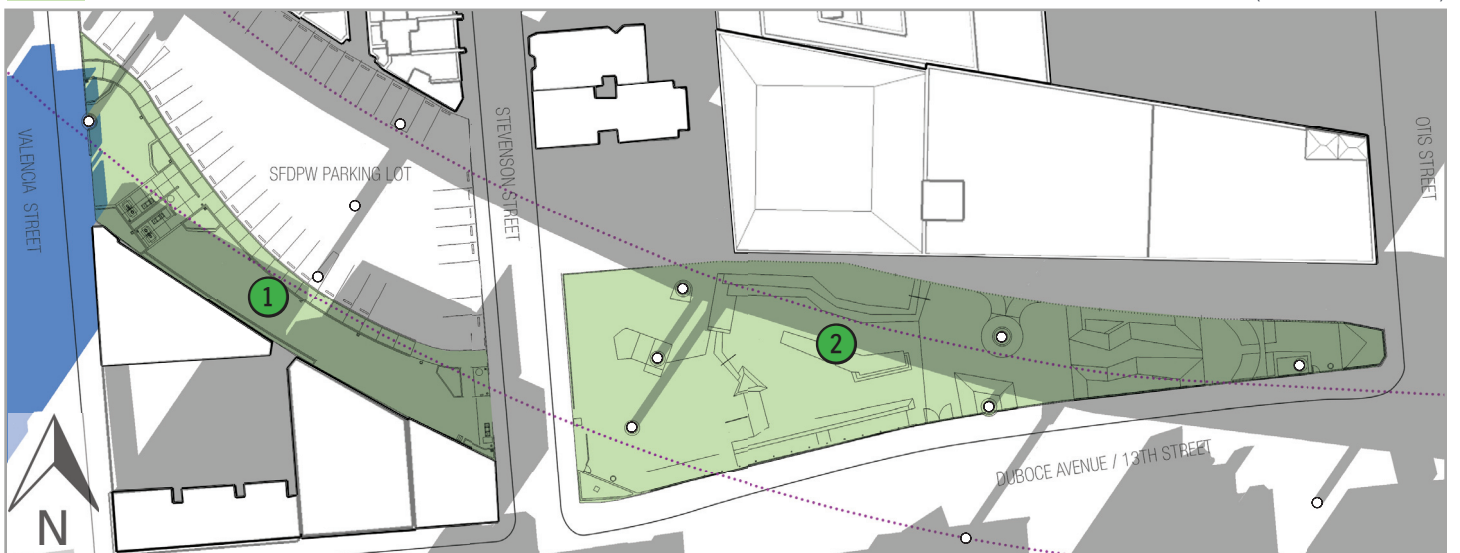
Shadow Profiles on the dates of maximum shading on Dog Park



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

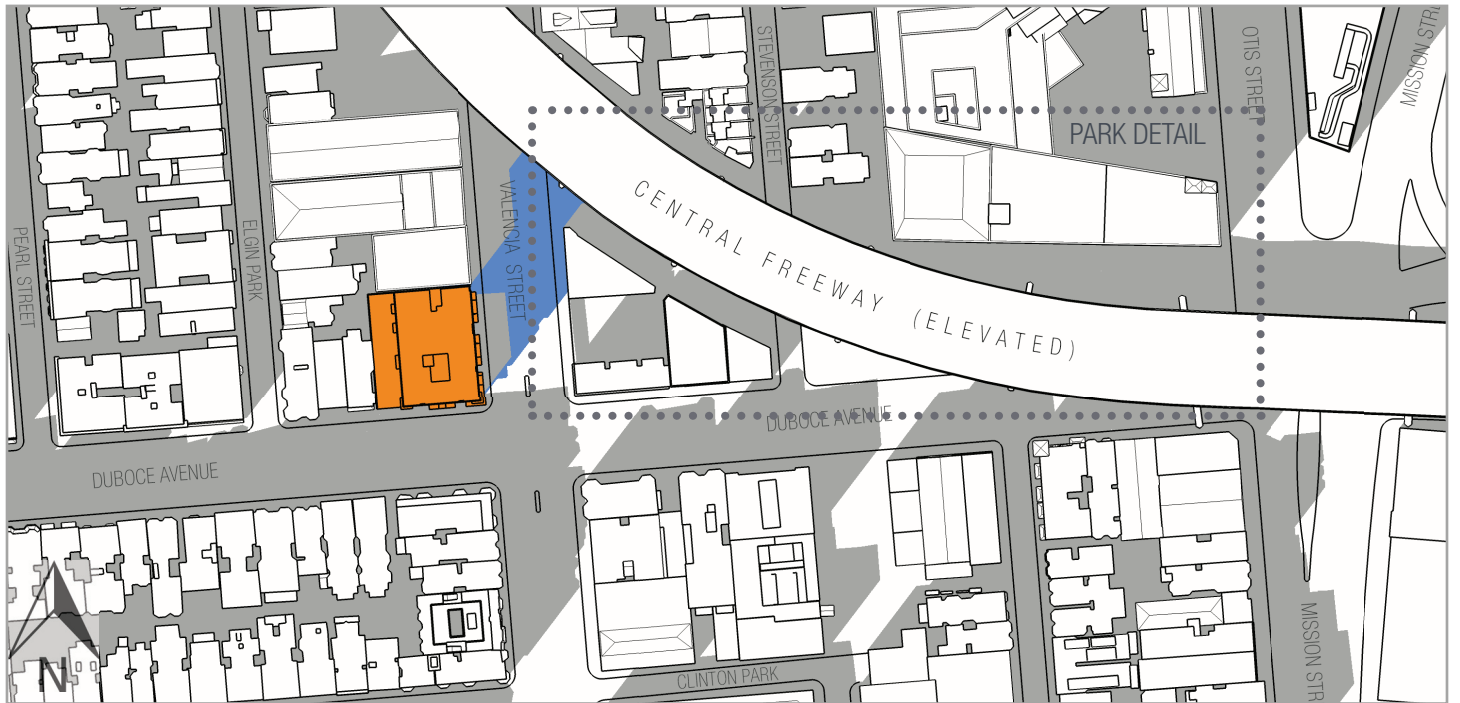
DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

2:15 PM

E1.9

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park

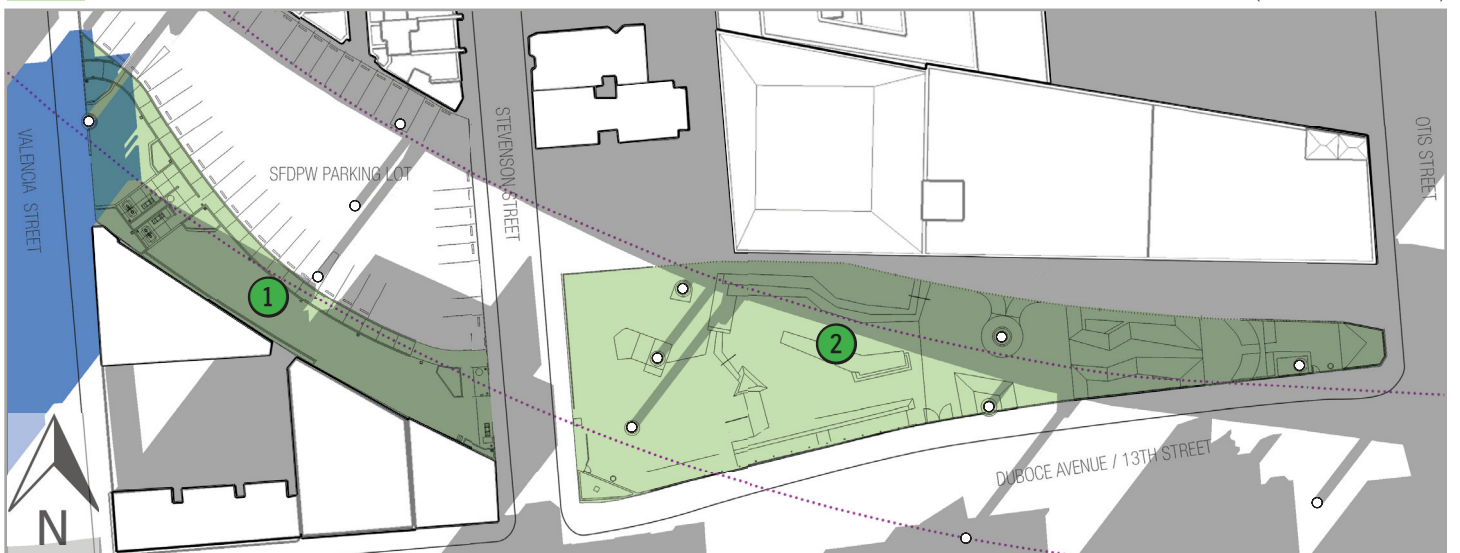


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

2:30 PM

E1.10 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park

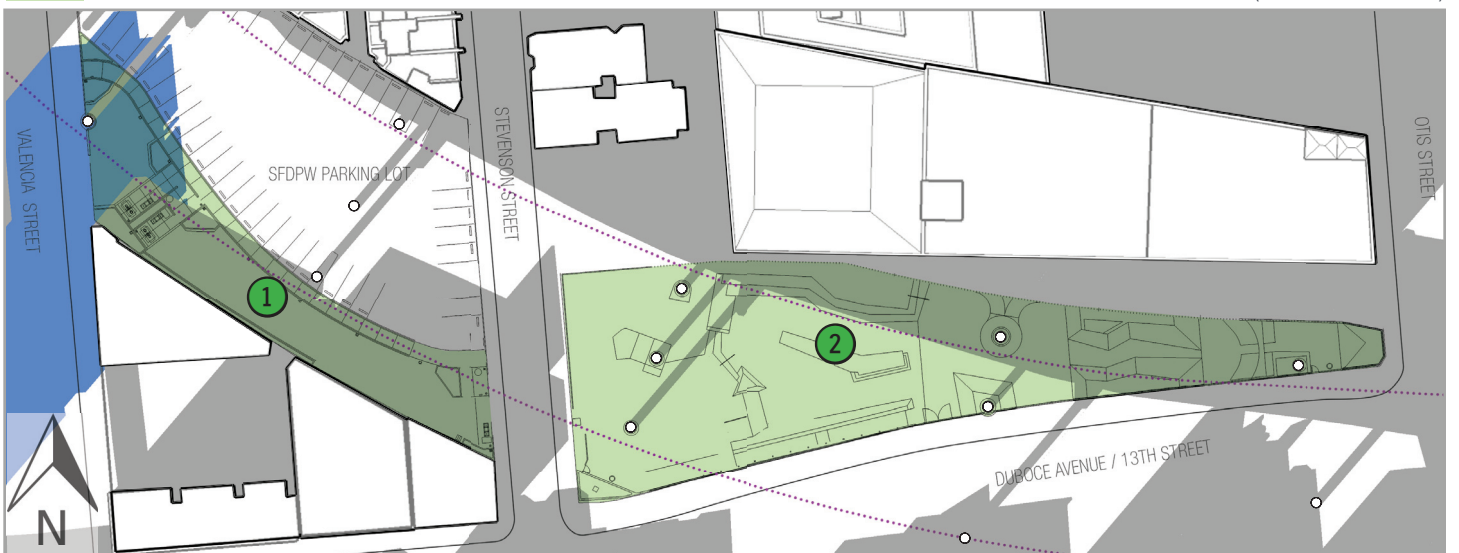


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

2:45 PM

E1.11 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park

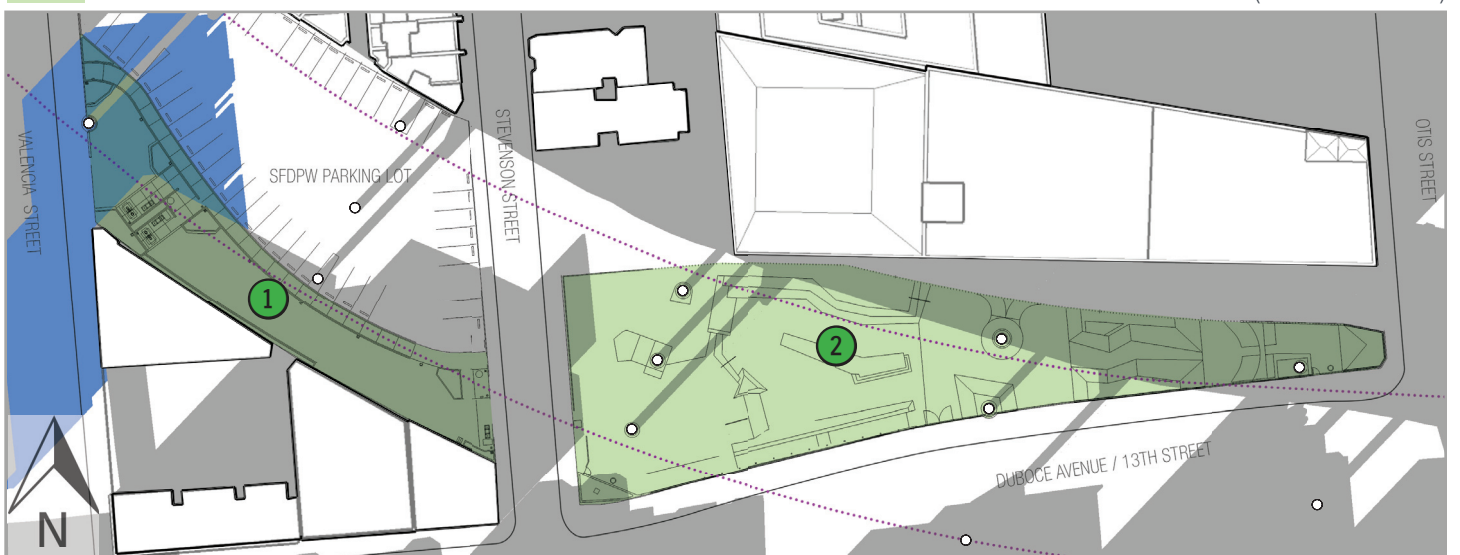


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

3:00 PM

E1.12 198 VALENCIA SHADOW STUDY

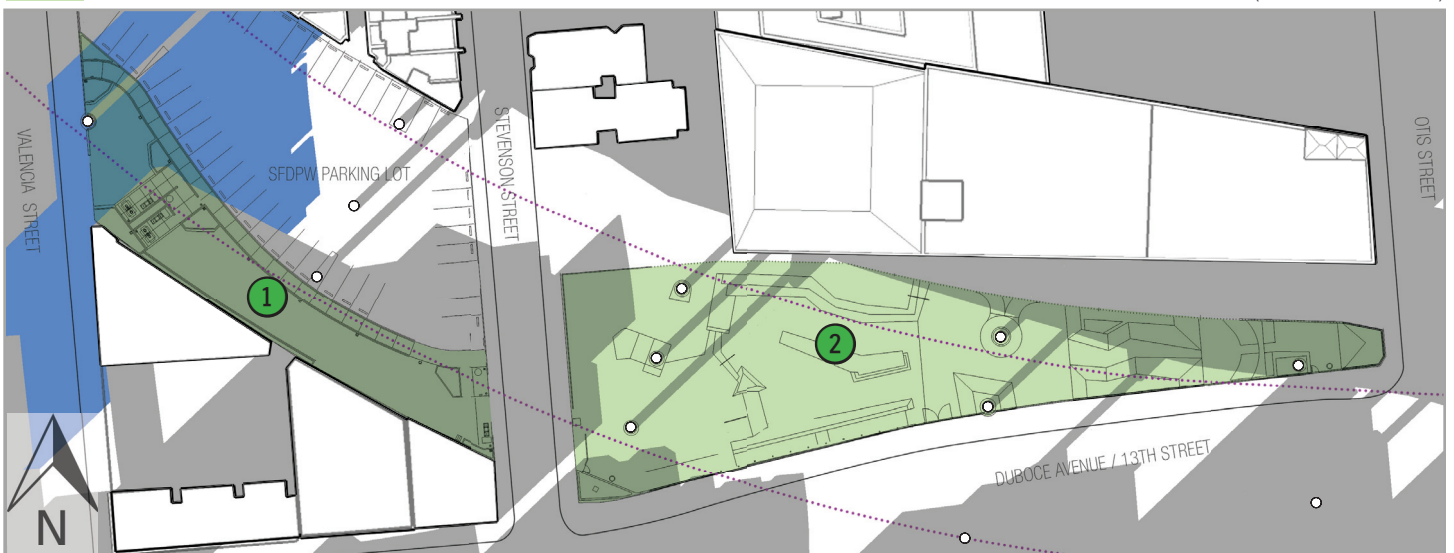
Shadow Profiles on the dates of maximum shading on Dog Park



AREA SHADING

- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

3:15 PM

E1.13 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park



AREA SHADING

- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

3:30 PM

E1.14 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park

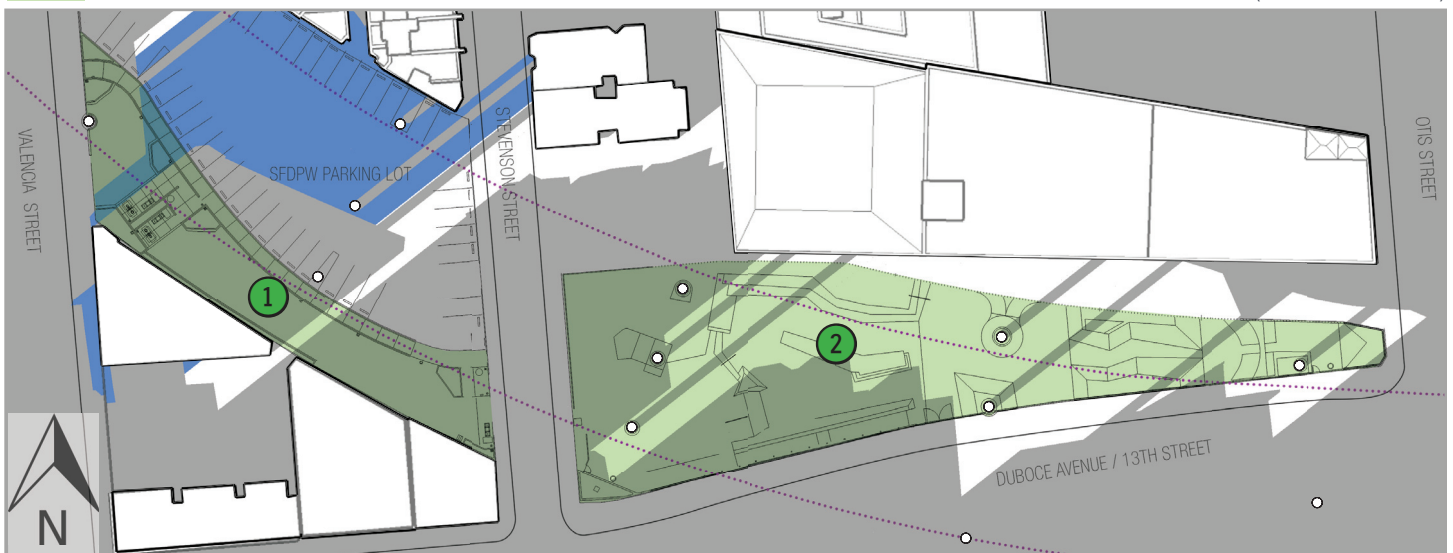


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

3:45 PM

E1.15 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Dog Park

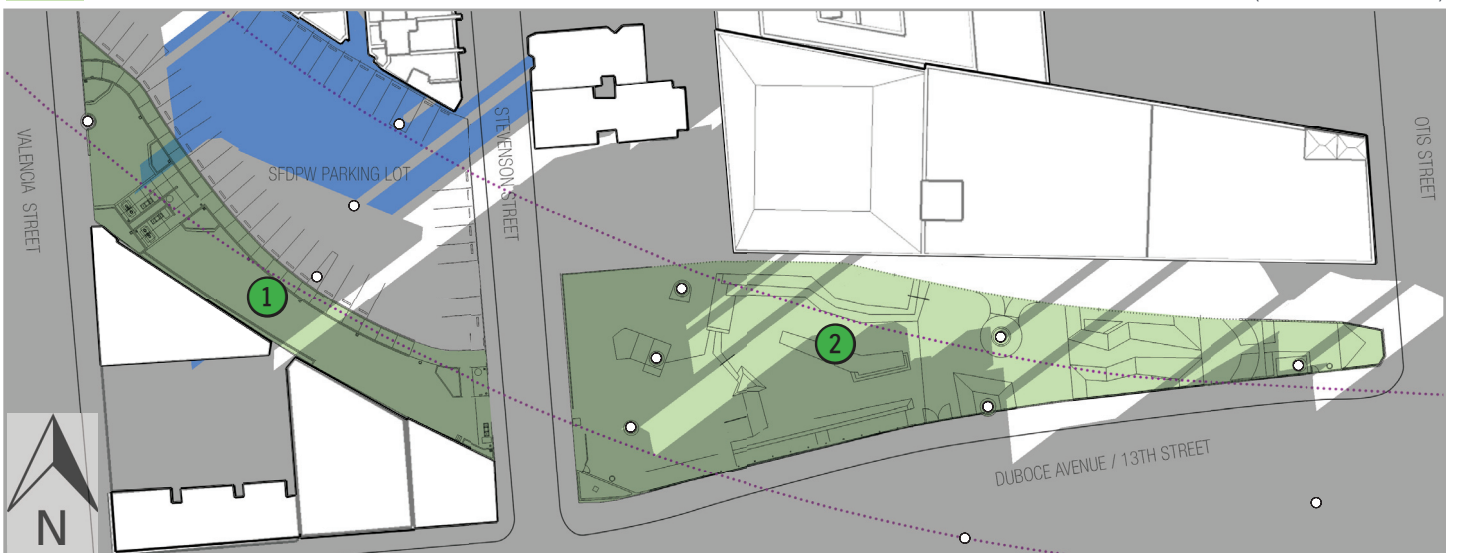


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
JAN 12 / NOV 29

3:51 PM



EXHIBIT E2: DAY OF MAXIMUM NEW SHADING ON SOMA WEST SKATE PARK

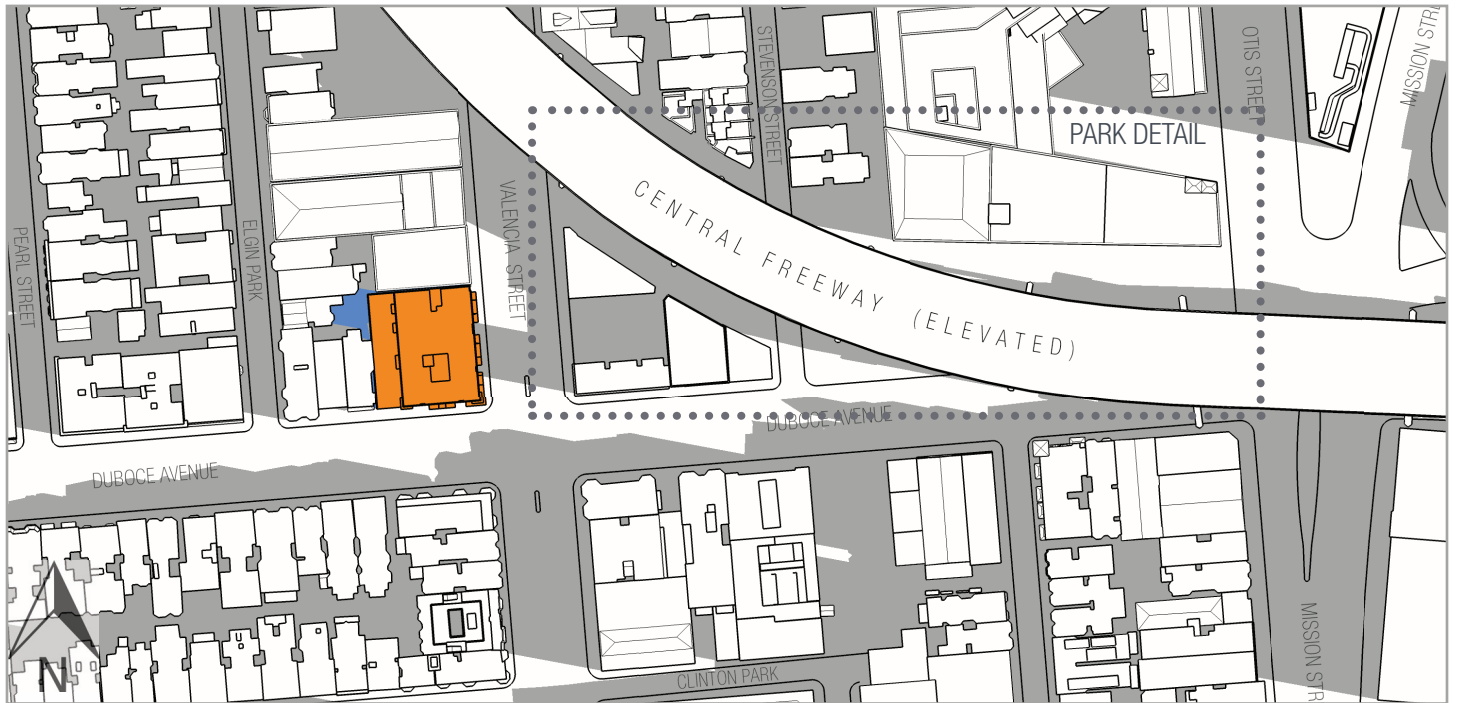
September 27 (March 15 similar)

Diagrams at one hour intervals starting one hour after sunrise to one hour prior to sunset, and at 15-minute intervals when new shadow is present.

E2.1

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park



AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

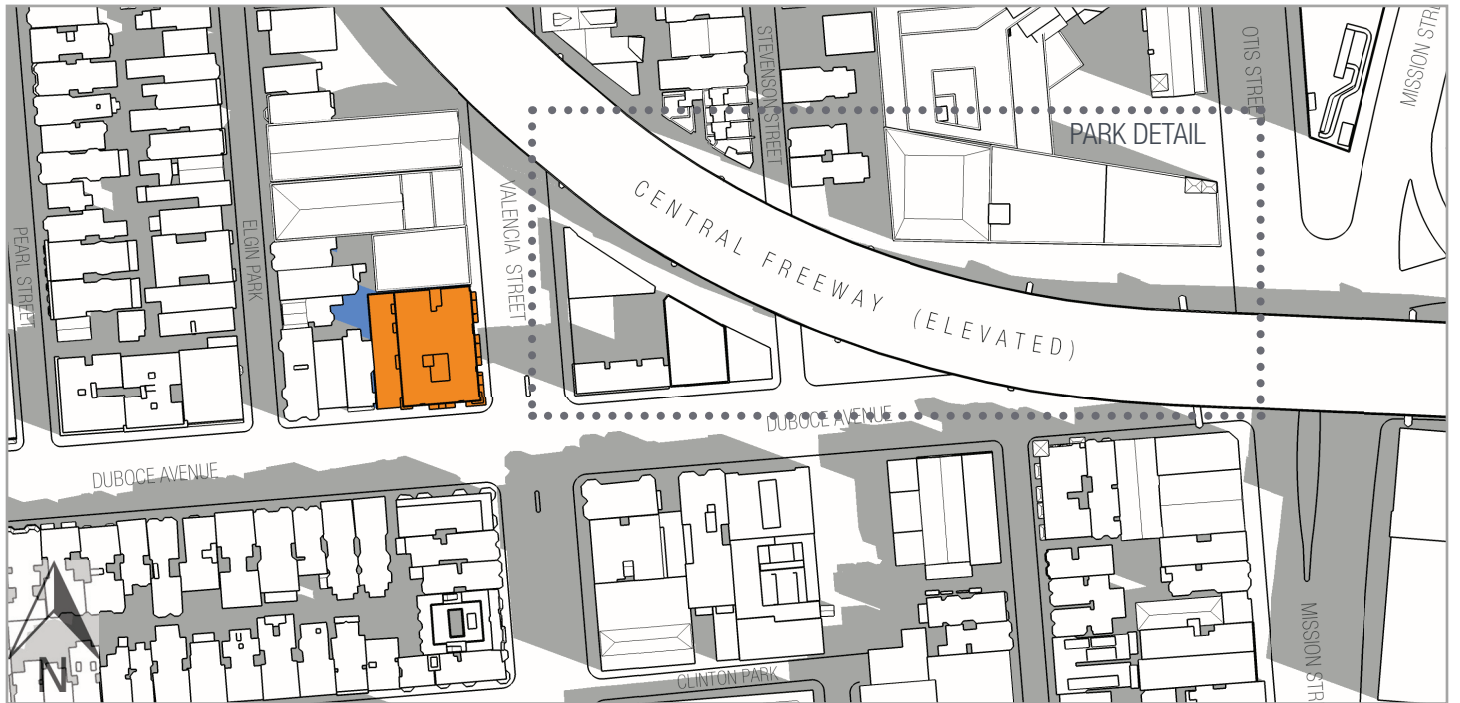
DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

7:02 AM

E2.2

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

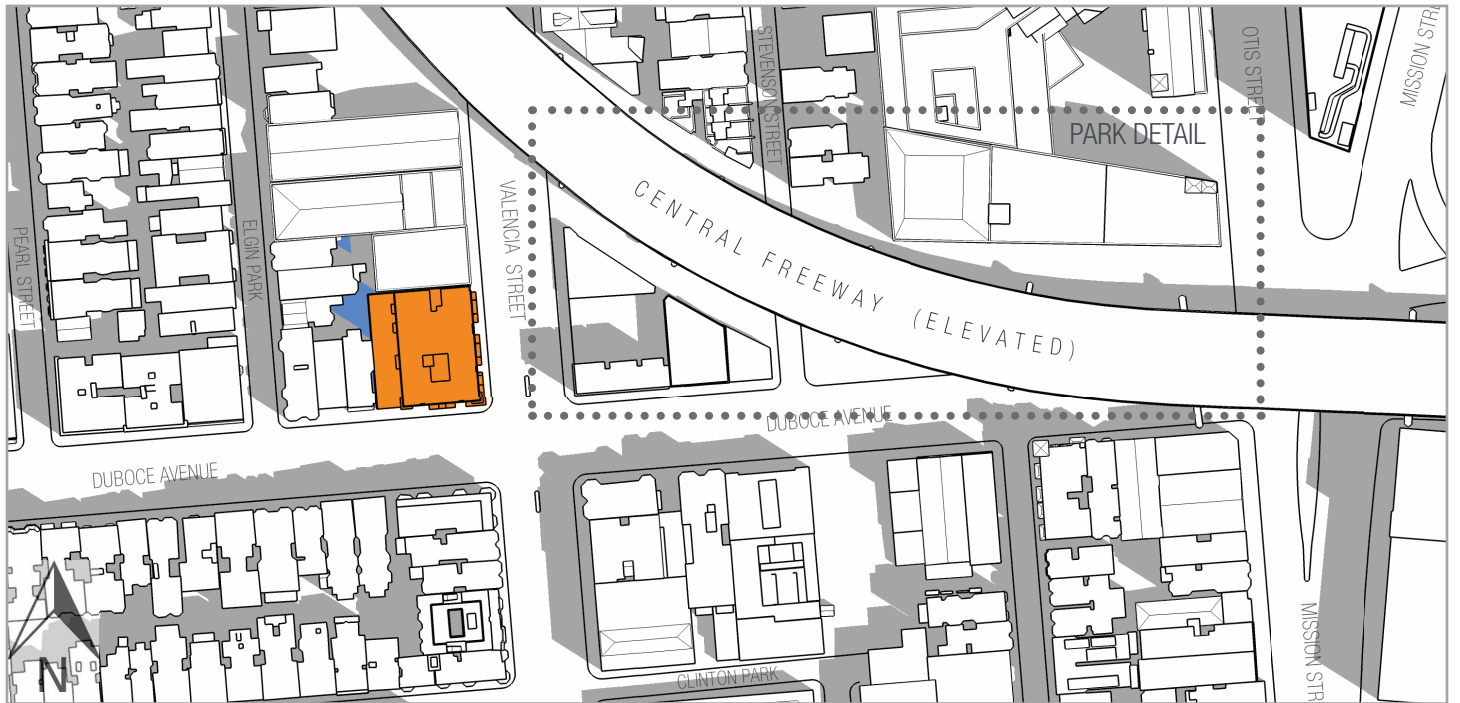
DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

8:00 AM

E2.3

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

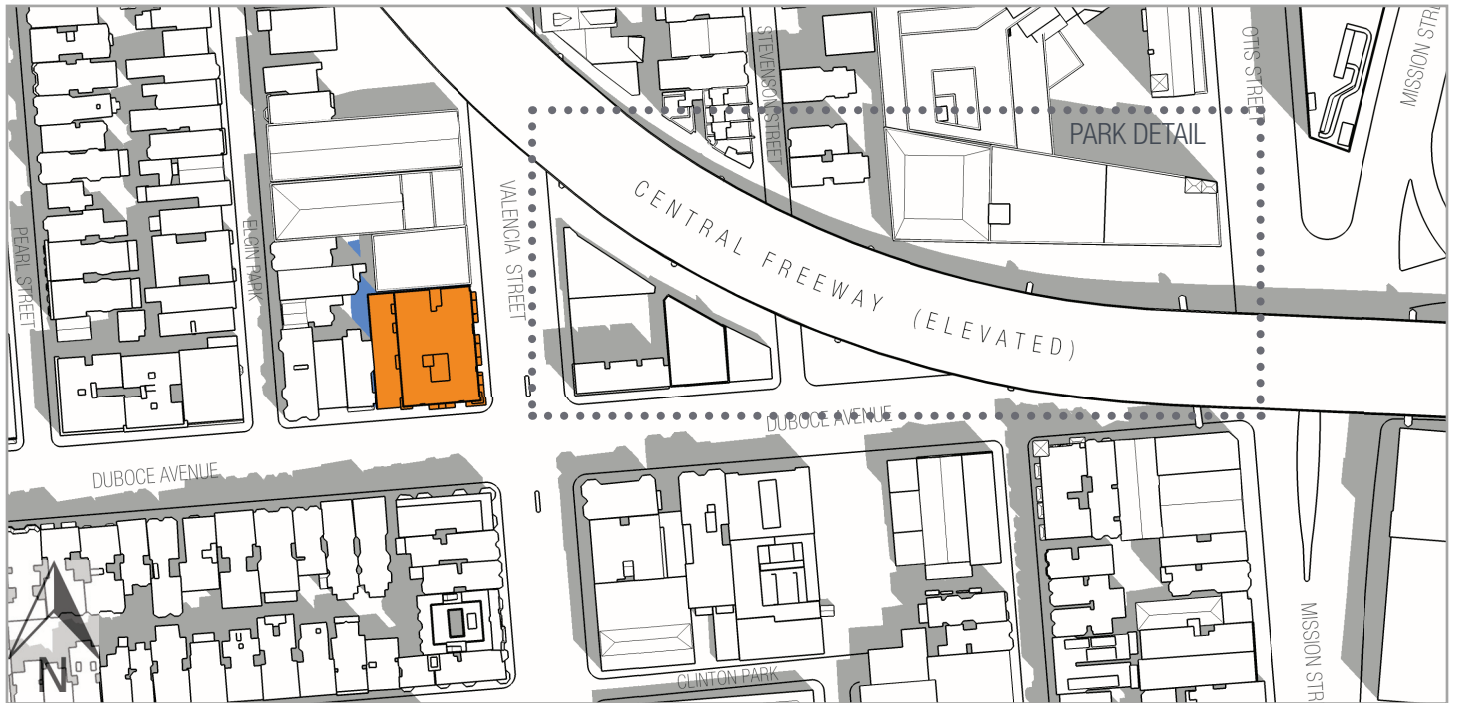
DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

9:00 AM

E2.4

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park



AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

10:00 AM

E2.5

198 VALENCIA SHADOW STUDY

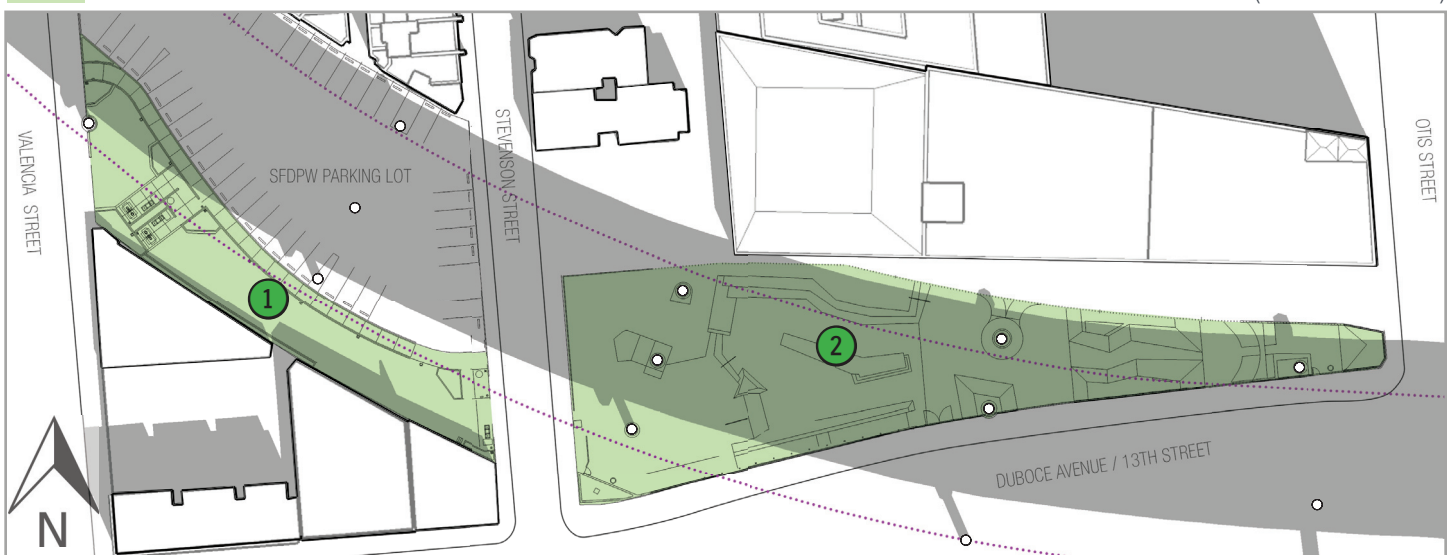
Shadow Profiles on the dates of maximum shading on Skate Park



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

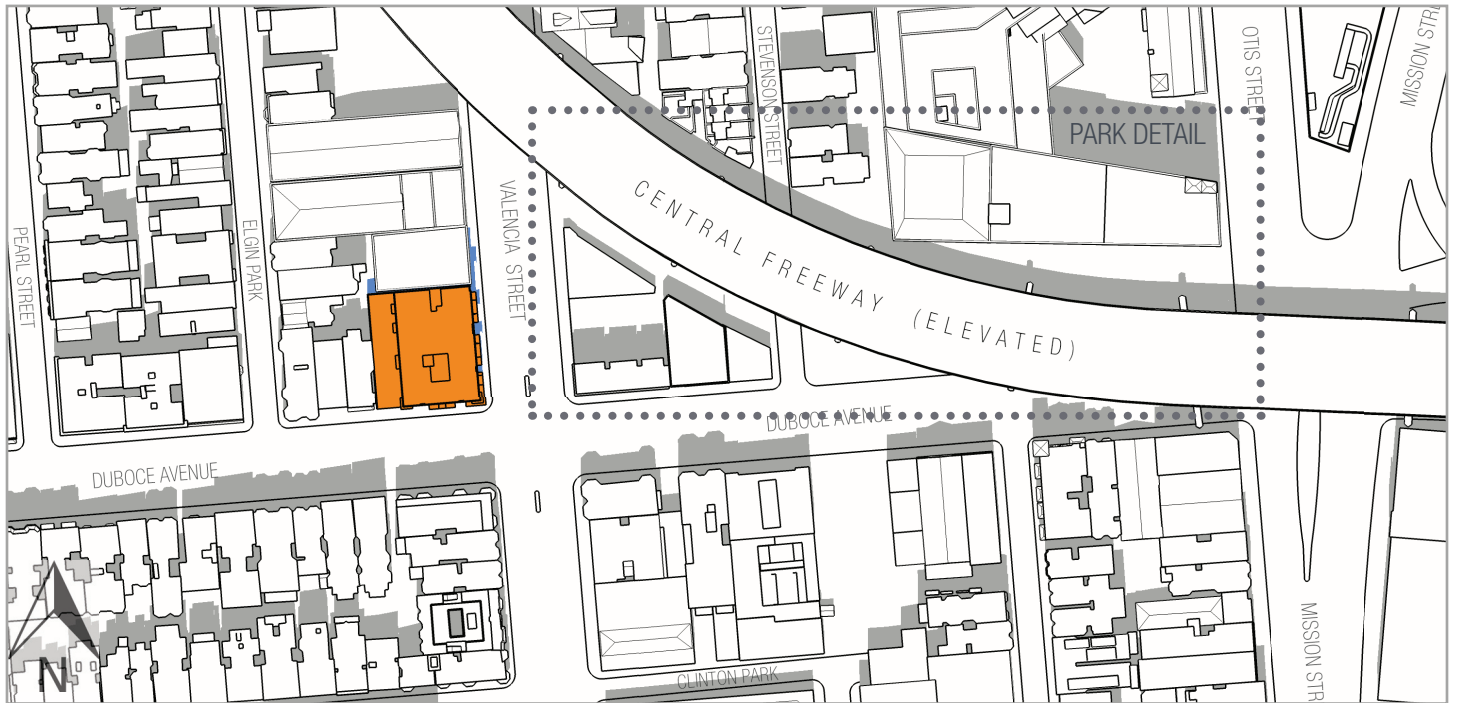
DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

11:00 AM

E2.6

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park

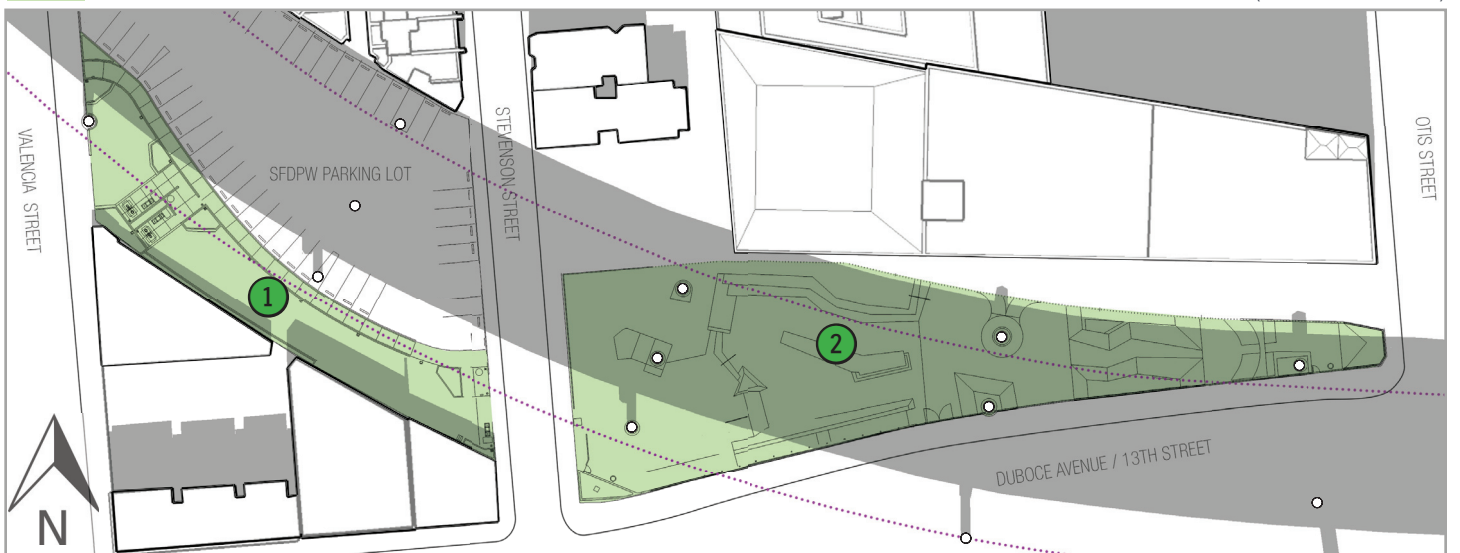


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

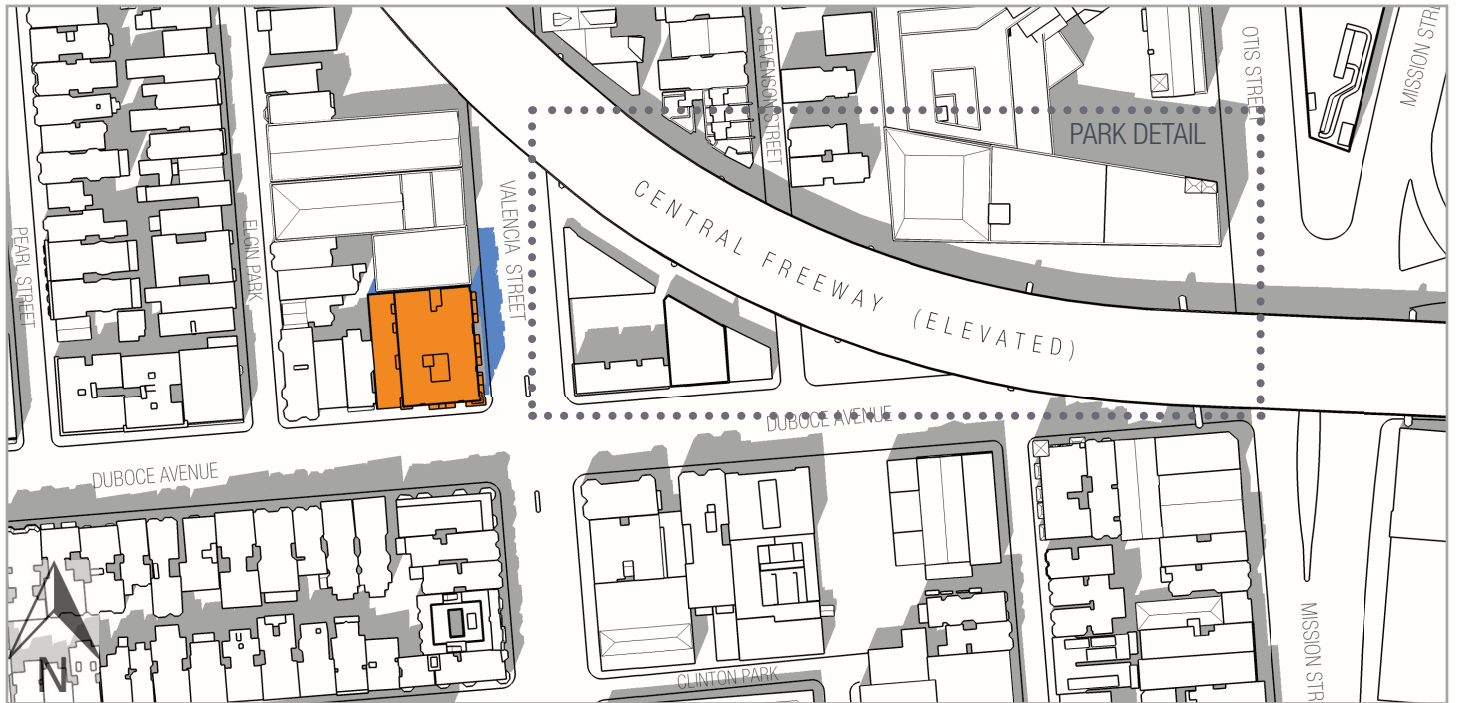
DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

12:00 PM

E2.7

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park



AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

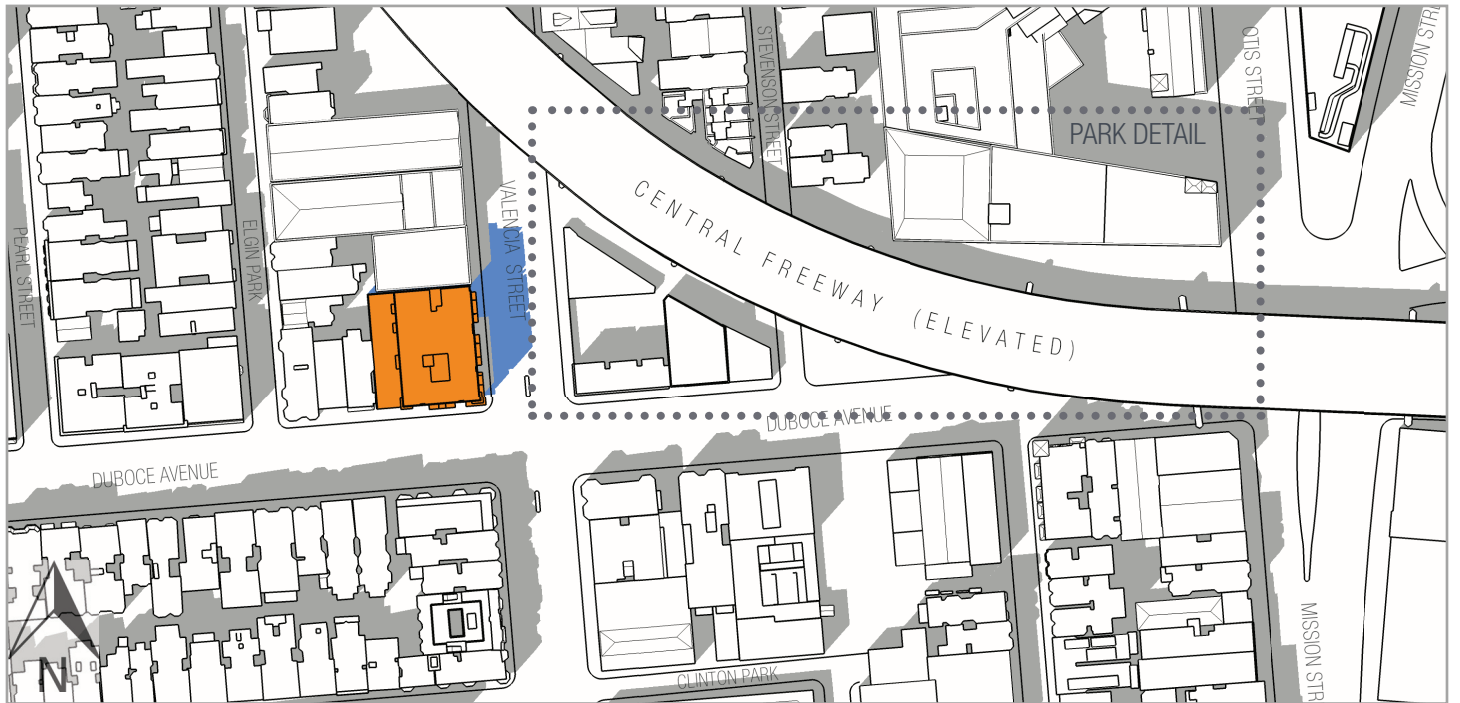
DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

1:00 PM

E2.8

198 VALENCIA SHADOW STUDY

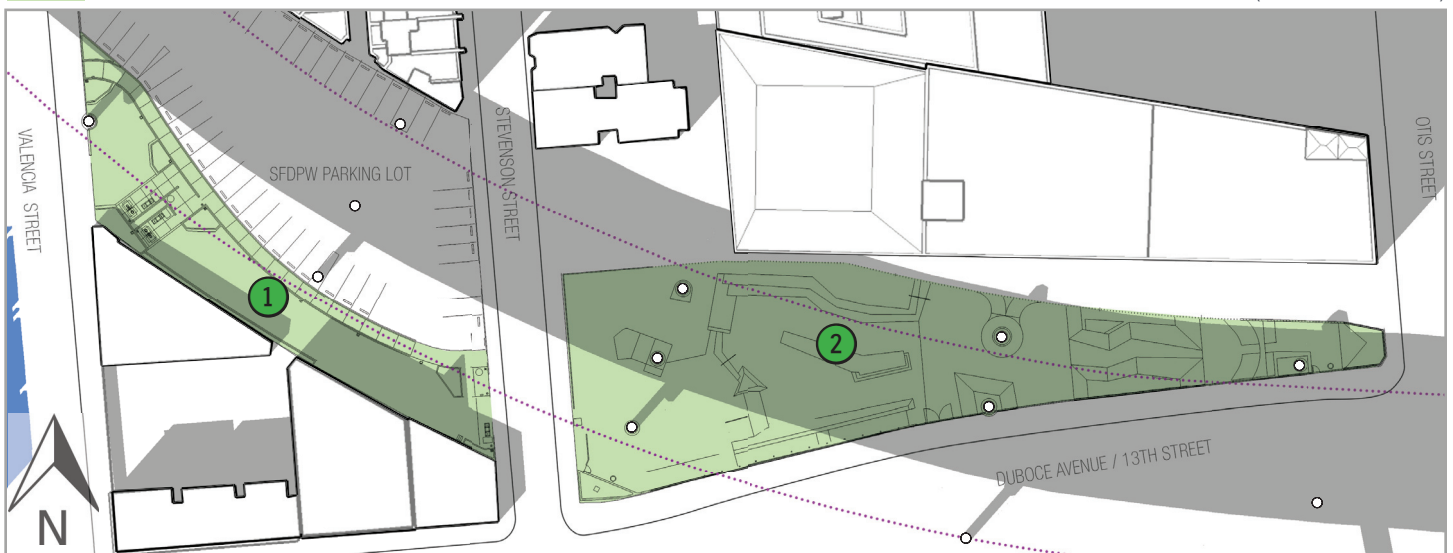
Shadow Profiles on the dates of maximum shading on Skate Park



- Parks
- ① SOMA West Dog Park
 - ② SOMA West Skate Park

AREA SHADING

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

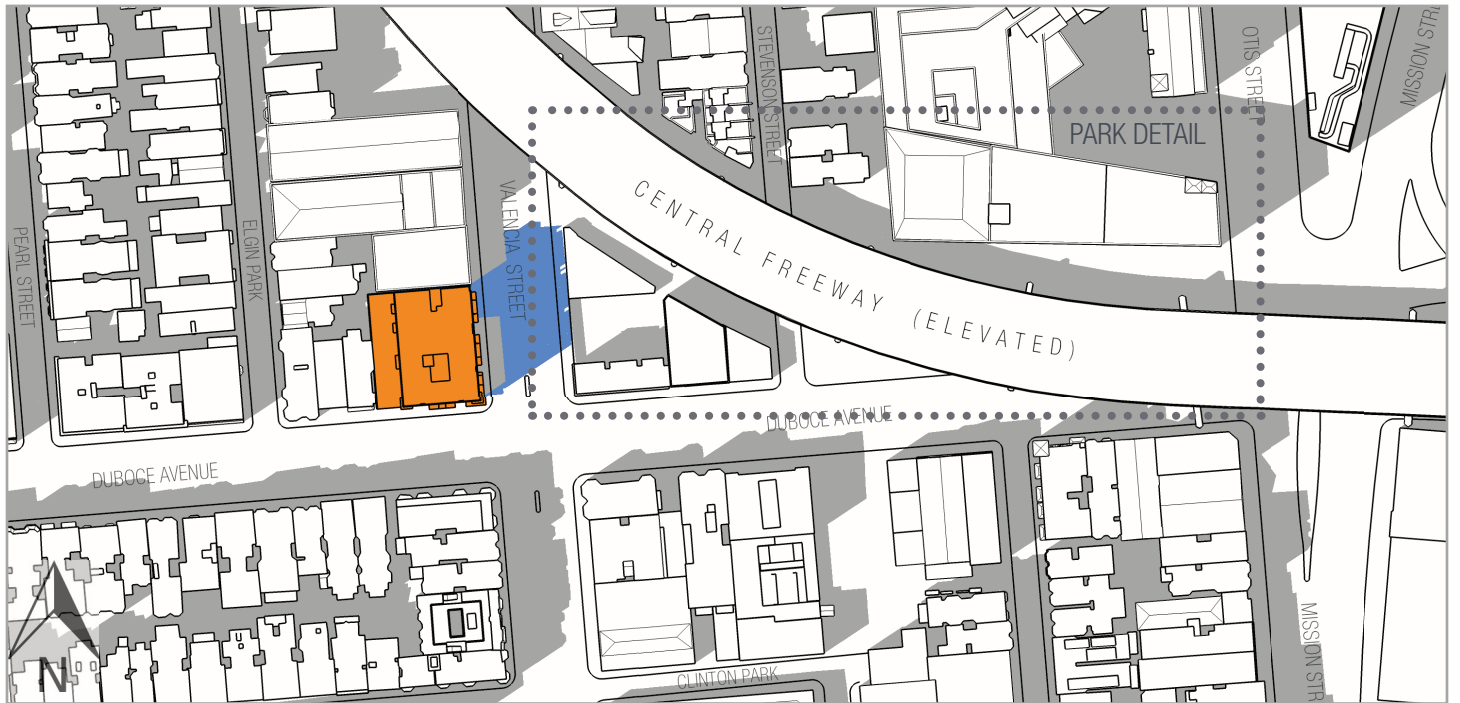
DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

2:00 PM

E2.9

198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park

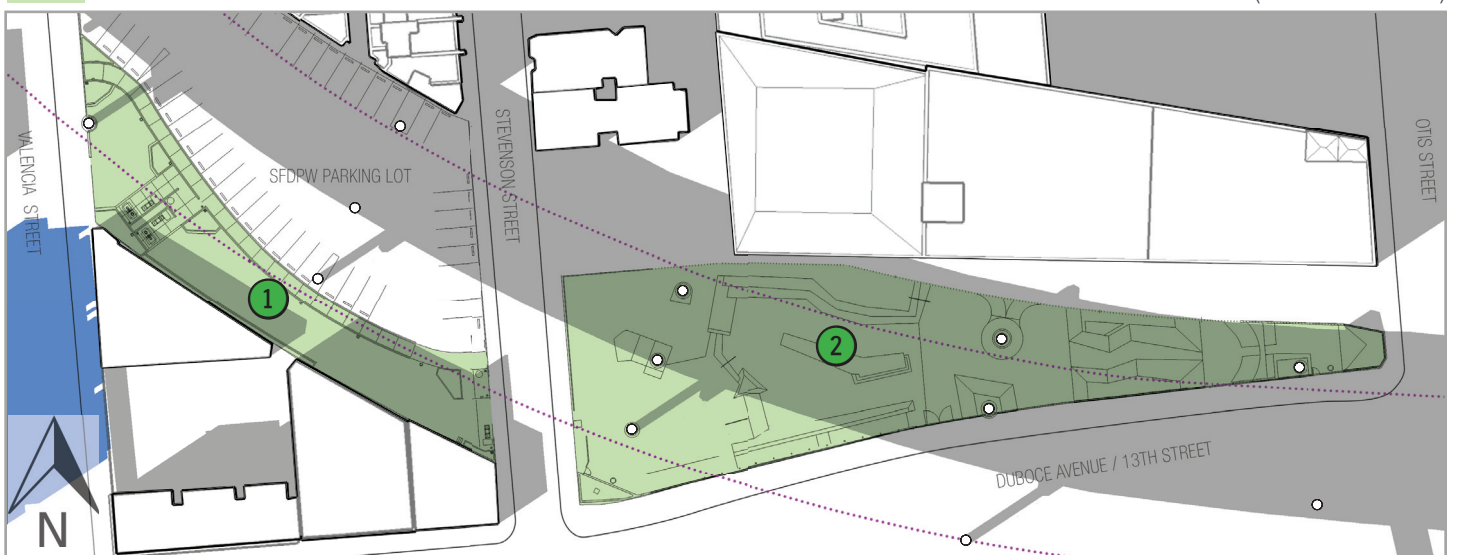


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



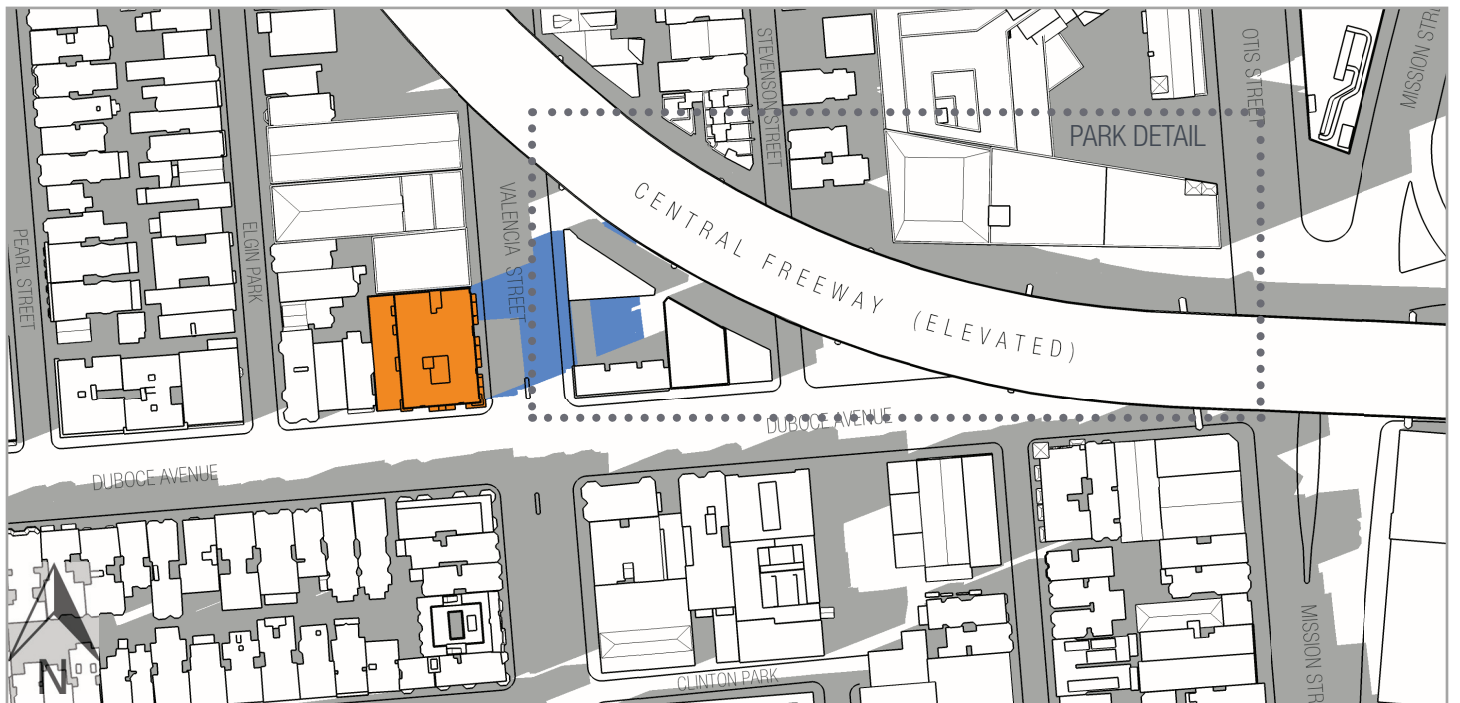
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

3:00 PM

E2.10 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park

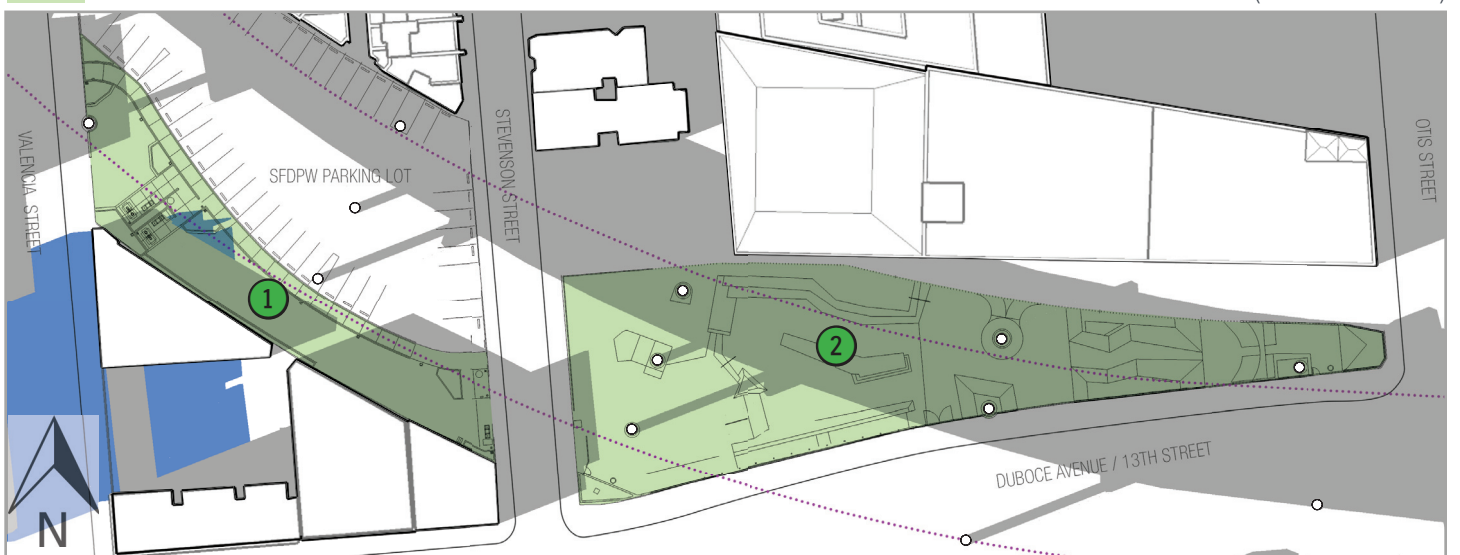


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



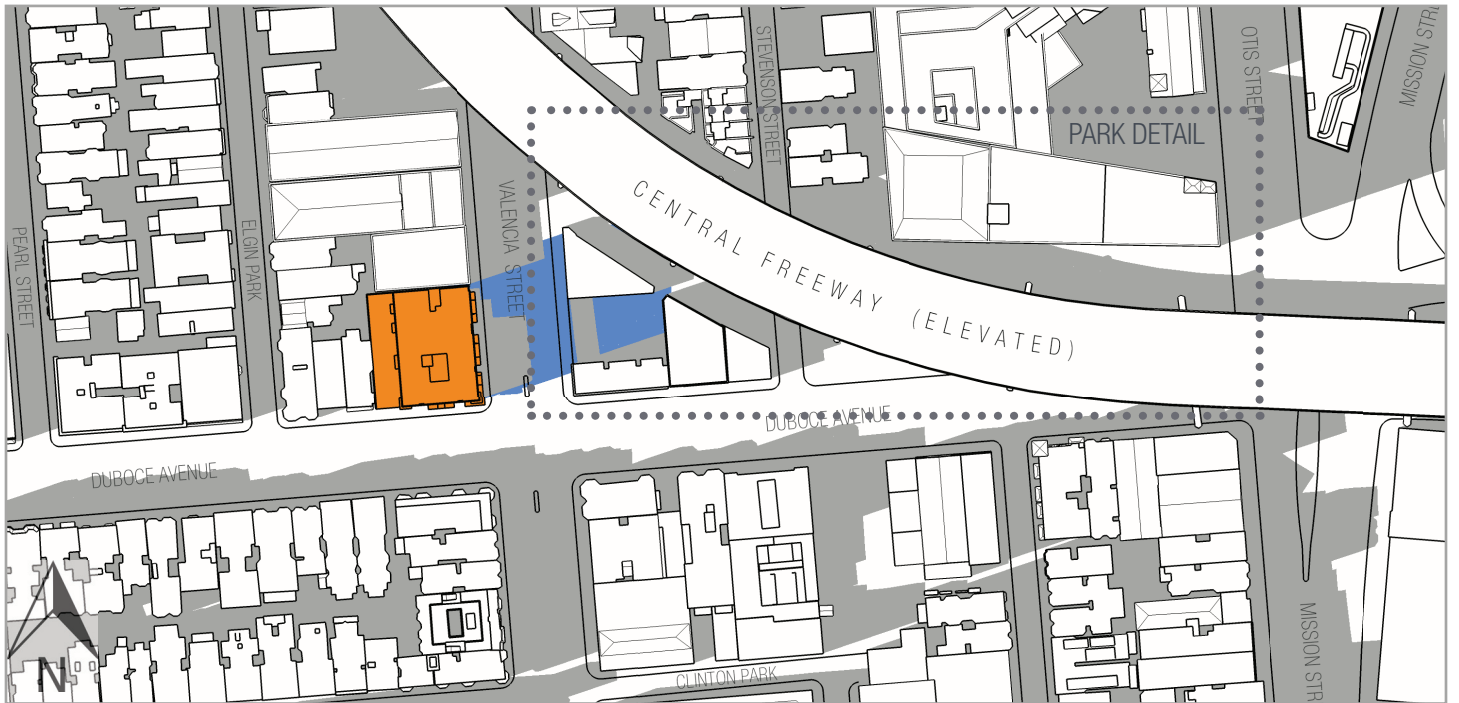
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

4:00 PM

E2.11 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park

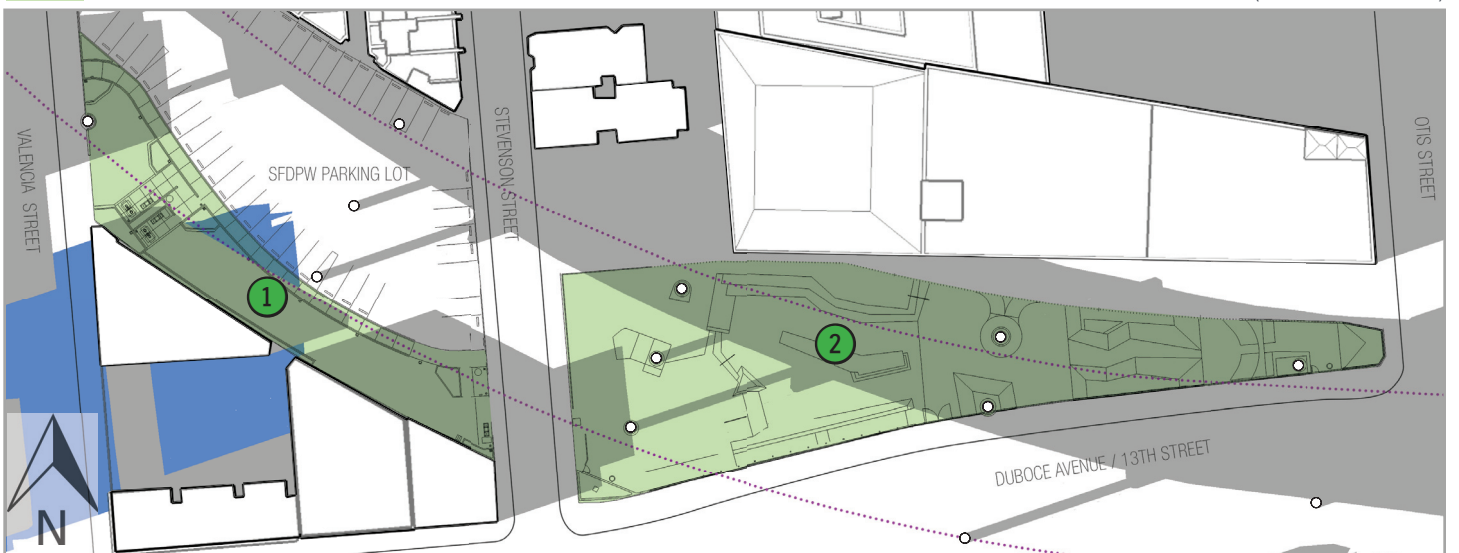


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



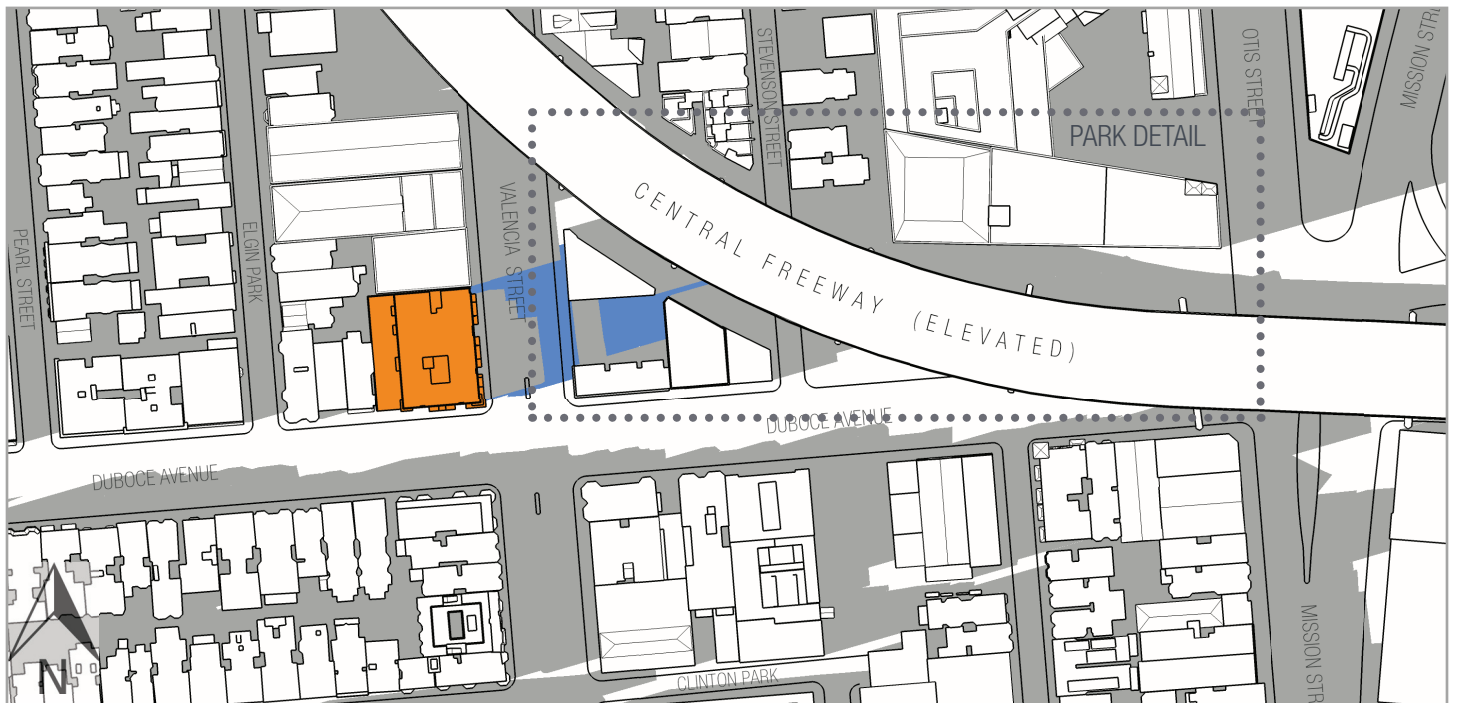
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

4:15 PM

E2.12 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park

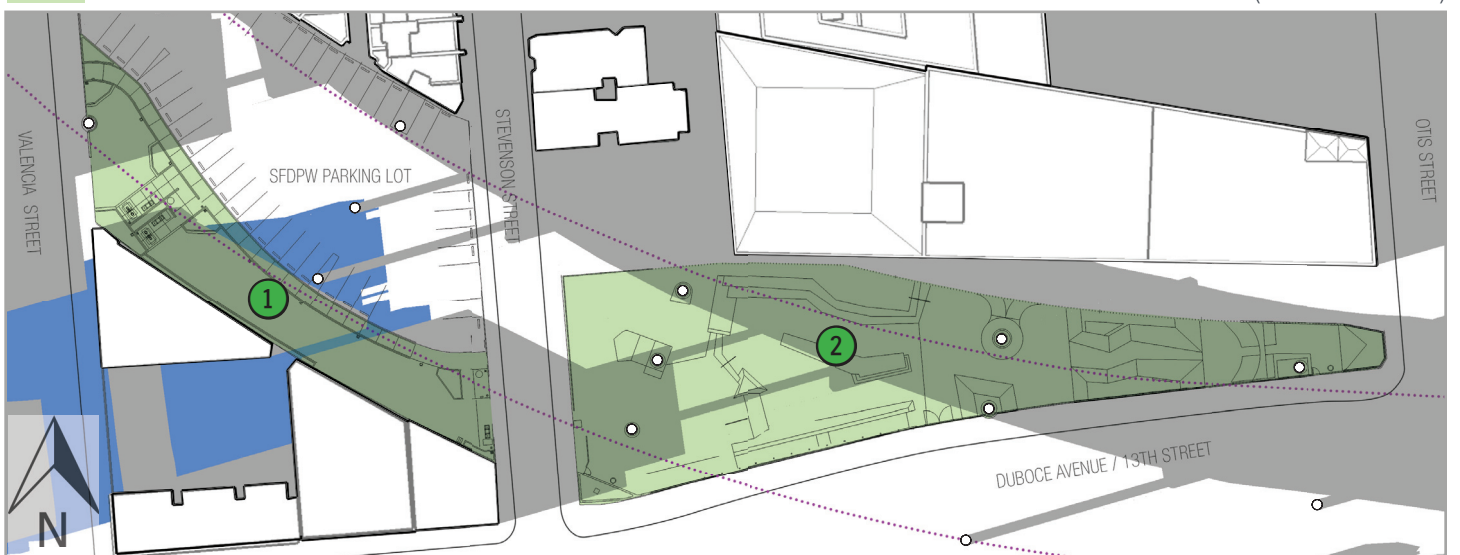


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



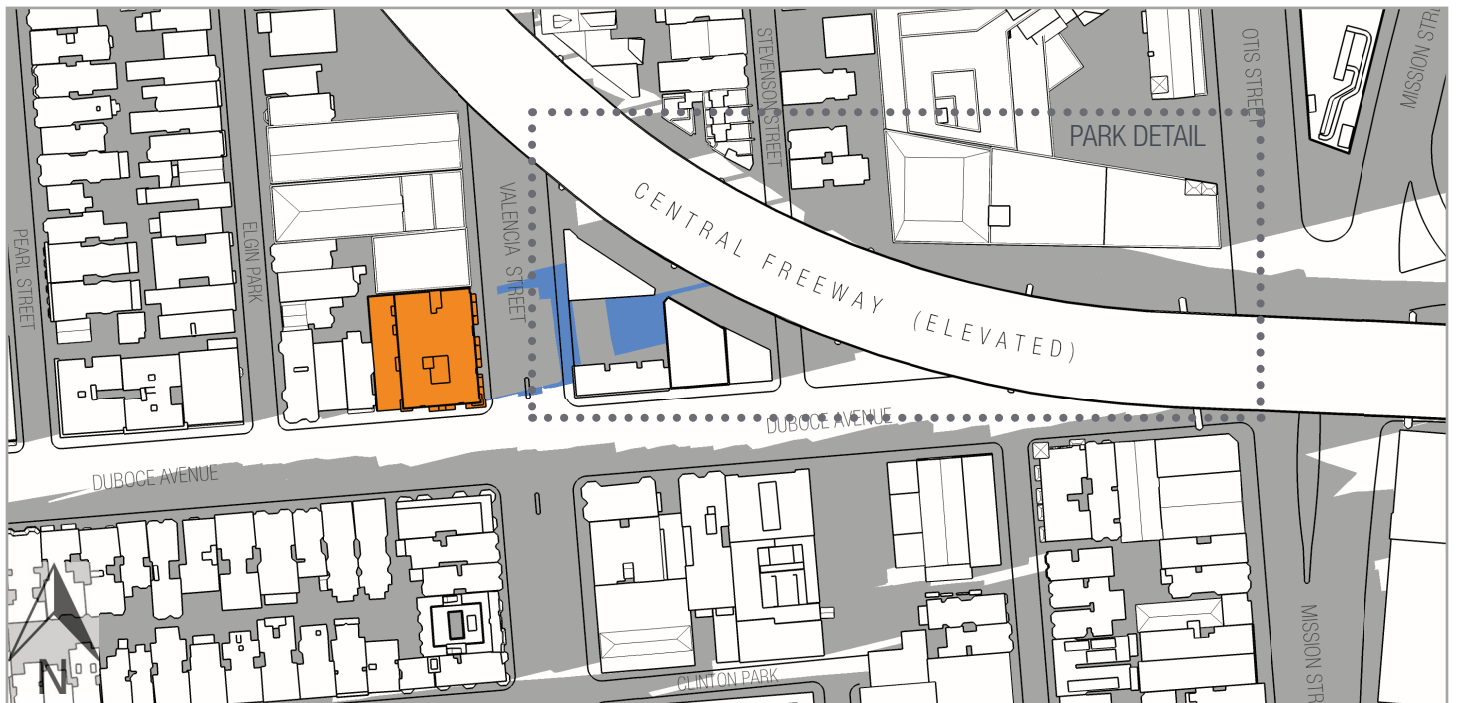
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

4:30 PM

E2.13 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park

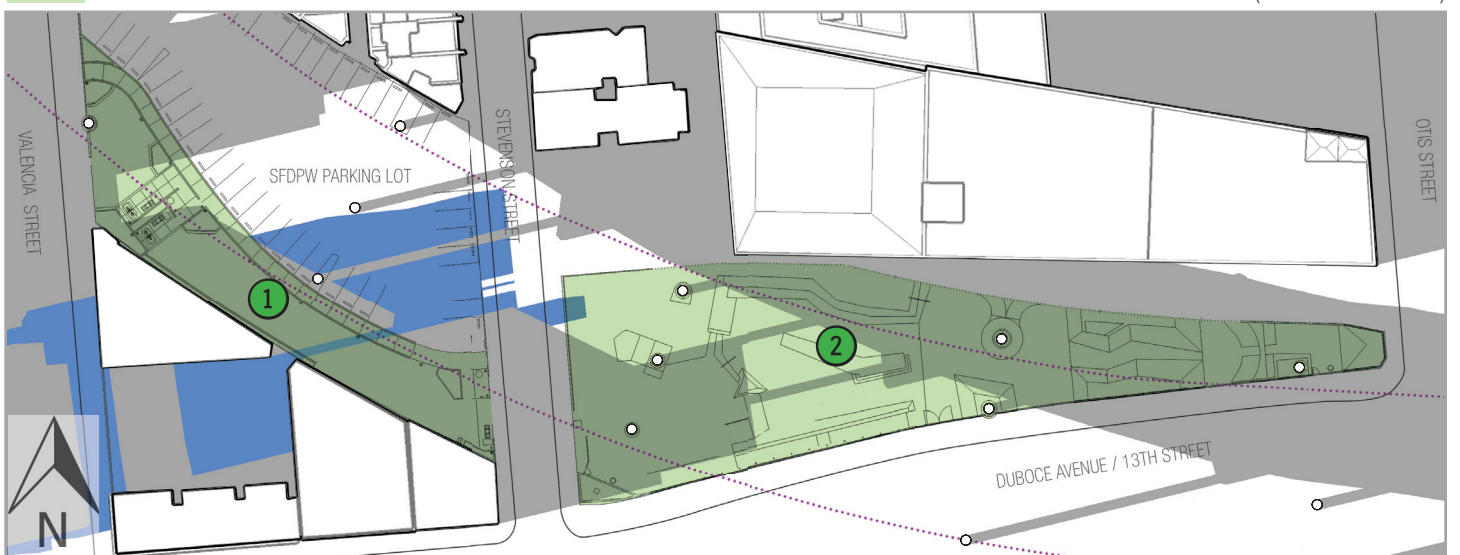


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



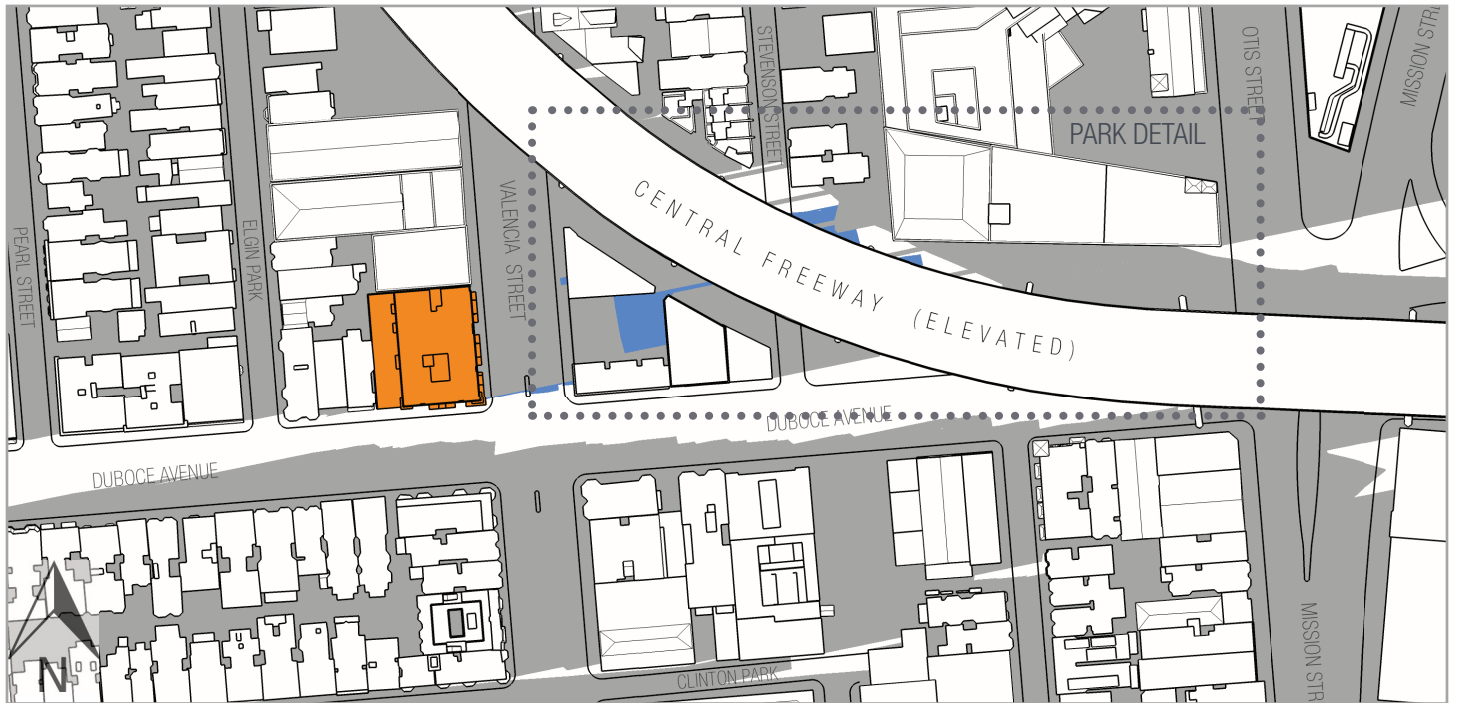
- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

4:45 PM

E2.14 198 VALENCIA SHADOW STUDY

Shadow Profiles on the dates of maximum shading on Skate Park

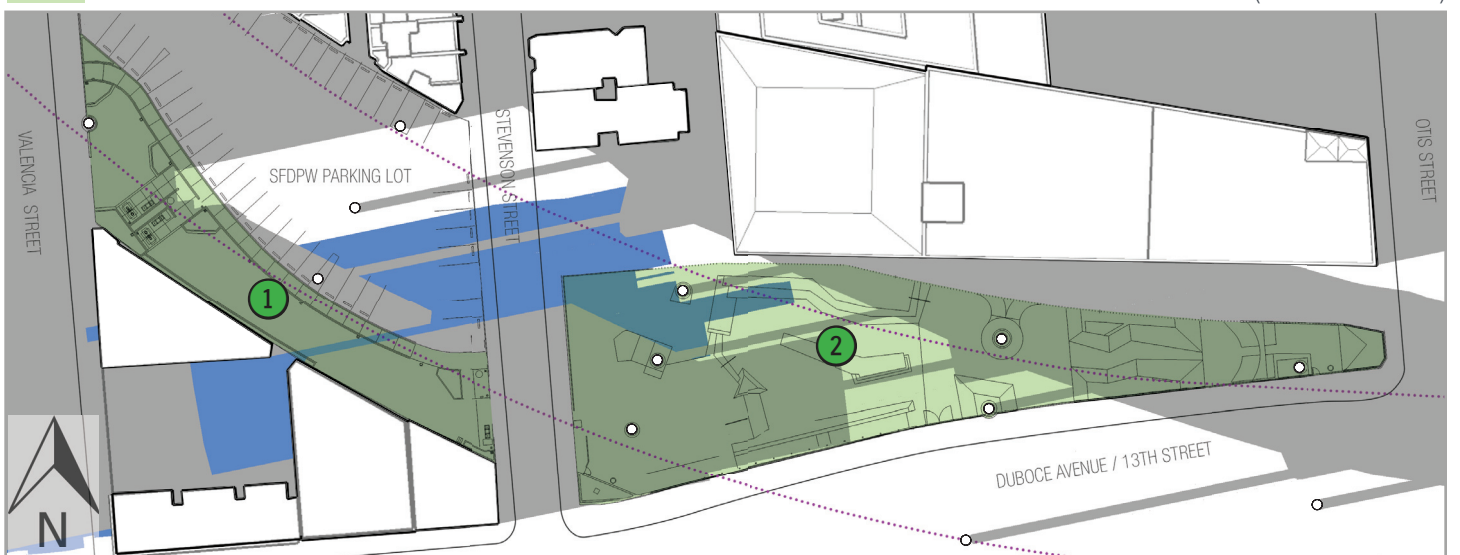


AREA SHADING

Parks

- ① SOMA West Dog Park
- ② SOMA West Skate Park

PARK DETAIL (UNDER FREEWAY)



- Proposed project
- Existing (current) shading
- New shading by proposed project
- Profile of Freeway Above

DATE OF MAXIMUM SHADING
MAR 15 / SEP 27

4:58 PM

An aerial, isometric view of a city block. Buildings are represented by white wireframe outlines. Green shadows are cast from the buildings, indicating the direction and intensity of sunlight. The shadows are longer and more pronounced on buildings that are further from the viewer or higher in elevation. The overall scene is a technical representation of urban shading data.

EXHIBIT F1: QUANTITATIVE SHADING DATA

Quantitative Annual Shading Data for SOMA West Dog Park

Shadow data for existing conditions and new shading from project,

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jun 21	6:48 AM	12 min	8,495.15	1699.03	0.00	0.00
Jun 21	7:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 21	7:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 21	7:30 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 21	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 21	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 21	8:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 21	8:30 AM	15 min	8,495.15	2123.37	0.00	0.00
Jun 21	8:45 AM	15 min	8,491.83	2100.98	0.00	0.00
Jun 21	9:00 AM	15 min	8,316.02	2021.19	0.00	0.00
Jun 21	9:15 AM	15 min	7,853.48	1886.65	0.00	0.00
Jun 21	9:30 AM	15 min	7,239.72	1731.59	0.00	0.00
Jun 21	9:45 AM	15 min	6,612.99	1582.82	0.00	0.00
Jun 21	10:00 AM	15 min	6,049.60	1448.54	0.00	0.00
Jun 21	10:15 AM	15 min	5,538.74	1326.29	0.00	0.00
Jun 21	10:30 AM	15 min	5,071.61	1214.15	0.00	0.00
Jun 21	10:45 AM	15 min	4,641.56	1110.56	0.00	0.00
Jun 21	11:00 AM	15 min	4,242.94	1014.28	0.00	0.00
Jun 21	11:15 AM	15 min	3,871.32	924.60	0.00	0.00
Jun 21	11:30 AM	15 min	3,525.49	843.32	0.00	0.00
Jun 21	11:45 AM	15 min	3,221.04	782.02	0.00	0.00
Jun 21	12:00 PM	15 min	3,035.10	741.06	0.00	0.00
Jun 21	12:15 PM	15 min	2,893.38	708.76	0.00	0.00
Jun 21	12:30 PM	15 min	2,776.66	684.93	0.00	0.00
Jun 21	12:45 PM	15 min	2,702.76	668.47	0.00	0.00
Jun 21	1:00 PM	15 min	2,645.00	655.90	0.00	0.00
Jun 21	1:15 PM	15 min	2,602.17	646.54	0.00	0.00
Jun 21	1:30 PM	15 min	2,570.15	639.21	0.00	0.00
Jun 21	1:45 PM	15 min	2,543.49	633.40	0.00	0.00
Jun 21	2:00 PM	15 min	2,523.70	629.20	0.00	0.00
Jun 21	2:15 PM	15 min	2,509.90	626.06	0.00	0.00
Jun 21	2:30 PM	15 min	2,498.57	623.66	0.00	0.00
Jun 21	2:45 PM	15 min	2,490.72	622.18	0.00	0.00
Jun 21	3:00 PM	15 min	2,486.69	621.50	0.00	0.00
Jun 21	3:15 PM	15 min	2,485.33	621.43	0.00	0.00
Jun 21	3:30 PM	15 min	2,486.07	621.80	0.00	0.00
Jun 21	3:45 PM	15 min	2,488.35	622.51	0.00	0.00
Jun 21	4:00 PM	15 min	2,491.72	623.81	0.00	0.00
Jun 21	4:15 PM	15 min	2,498.74	625.95	0.00	0.00
Jun 21	4:30 PM	15 min	2,508.87	629.07	0.00	0.00
Jun 21	4:45 PM	15 min	2,523.68	628.03	0.00	0.00
Jun 21	5:00 PM	15 min	2,500.52	622.77	0.00	0.00
Jun 21	5:15 PM	15 min	2,481.62	616.92	0.00	0.00
Jun 21	5:30 PM	15 min	2,453.72	607.17	0.00	0.00
Jun 21	5:45 PM	15 min	2,403.64	591.91	0.00	0.00
Jun 21	6:00 PM	15 min	2,331.62	604.95	0.00	0.00
Jun 21	6:15 PM	15 min	2,508.01	664.81	0.00	0.00
Jun 21	6:30 PM	15 min	2,810.47	769.40	0.00	0.00
Jun 21	6:45 PM	15 min	3,344.74	985.41	0.00	0.00
Jun 21	7:00 PM	15 min	4,538.52	1320.54	0.00	0.00
Jun 21	7:15 PM	15 min	6,025.78	1754.05	0.00	0.00
Jun 21	7:30 PM	5 min	8,006.63	742.54	0.00	0.00
Jun 21	7:35 PM	0 min	8,494.16		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jun 28	6:50 AM	10 min	8,495.15	1444.18	0.00	0.00
Jun 28	7:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 28	7:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 28	7:30 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 28	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 28	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 28	8:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jun 28	8:30 AM	15 min	8,495.15	2123.70	0.00	0.00
Jun 28	8:45 AM	15 min	8,494.49	2104.76	0.00	0.00
Jun 28	9:00 AM	15 min	8,343.57	2029.90	0.00	0.00
Jun 28	9:15 AM	15 min	7,895.64	1898.59	0.00	0.00
Jun 28	9:30 AM	15 min	7,293.10	1743.96	0.00	0.00
Jun 28	9:45 AM	15 min	6,658.57	1593.40	0.00	0.00
Jun 28	10:00 AM	15 min	6,088.60	1457.62	0.00	0.00
Jun 28	10:15 AM	15 min	5,572.35	1334.12	0.00	0.00
Jun 28	10:30 AM	15 min	5,100.64	1220.94	0.00	0.00
Jun 28	10:45 AM	15 min	4,666.86	1116.47	0.00	0.00
Jun 28	11:00 AM	15 min	4,264.89	1019.41	0.00	0.00
Jun 28	11:15 AM	15 min	3,890.36	928.96	0.00	0.00
Jun 28	11:30 AM	15 min	3,541.31	846.80	0.00	0.00
Jun 28	11:45 AM	15 min	3,233.12	784.39	0.00	0.00
Jun 28	12:00 PM	15 min	3,041.97	742.56	0.00	0.00
Jun 28	12:15 PM	15 min	2,898.53	709.86	0.00	0.00
Jun 28	12:30 PM	15 min	2,780.31	685.71	0.00	0.00
Jun 28	12:45 PM	15 min	2,705.40	669.05	0.00	0.00
Jun 28	1:00 PM	15 min	2,646.98	656.29	0.00	0.00
Jun 28	1:15 PM	15 min	2,603.36	646.90	0.00	0.00
Jun 28	1:30 PM	15 min	2,571.87	639.61	0.00	0.00
Jun 28	1:45 PM	15 min	2,544.98	633.82	0.00	0.00
Jun 28	2:00 PM	15 min	2,525.54	629.63	0.00	0.00
Jun 28	2:15 PM	15 min	2,511.52	626.48	0.00	0.00
Jun 28	2:30 PM	15 min	2,500.35	624.10	0.00	0.00
Jun 28	2:45 PM	15 min	2,492.49	622.65	0.00	0.00
Jun 28	3:00 PM	15 min	2,488.72	622.06	0.00	0.00
Jun 28	3:15 PM	15 min	2,487.74	622.07	0.00	0.00
Jun 28	3:30 PM	15 min	2,488.86	622.54	0.00	0.00
Jun 28	3:45 PM	15 min	2,491.49	623.36	0.00	0.00
Jun 28	4:00 PM	15 min	2,495.36	624.77	0.00	0.00
Jun 28	4:15 PM	15 min	2,502.78	627.04	0.00	0.00
Jun 28	4:30 PM	15 min	2,513.57	630.29	0.00	0.00
Jun 28	4:45 PM	15 min	2,528.78	629.75	0.00	0.00
Jun 28	5:00 PM	15 min	2,509.25	624.95	0.00	0.00
Jun 28	5:15 PM	15 min	2,490.33	619.29	0.00	0.00
Jun 28	5:30 PM	15 min	2,463.99	609.98	0.00	0.00
Jun 28	5:45 PM	15 min	2,415.85	595.20	0.00	0.00
Jun 28	6:00 PM	15 min	2,345.79	606.53	0.00	0.00
Jun 28	6:15 PM	15 min	2,506.44	665.58	0.00	0.00
Jun 28	6:30 PM	15 min	2,818.19	770.71	0.00	0.00
Jun 28	6:45 PM	15 min	3,347.50	984.20	0.00	0.00
Jun 28	7:00 PM	15 min	4,526.13	1316.51	0.00	0.00
Jun 28	7:15 PM	15 min	6,005.92	1733.98	0.00	0.00
Jun 28	7:30 PM	6 min	7,865.95	818.05	0.00	0.00
Jun 28	7:36 PM	0 min	8,495.13		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jul 5	6:54 AM	6 min	8,495.15	849.52	0.00	0.00
Jul 5	7:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 5	7:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 5	7:30 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 5	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 5	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 5	8:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 5	8:30 AM	15 min	8,495.15	2123.78	0.00	0.00
Jul 5	8:45 AM	15 min	8,495.10	2106.46	0.00	0.00
Jul 5	9:00 AM	15 min	8,356.60	2033.88	0.00	0.00
Jul 5	9:15 AM	15 min	7,914.46	1903.72	0.00	0.00
Jul 5	9:30 AM	15 min	7,315.33	1748.34	0.00	0.00
Jul 5	9:45 AM	15 min	6,671.42	1595.67	0.00	0.00
Jul 5	10:00 AM	15 min	6,093.92	1458.18	0.00	0.00
Jul 5	10:15 AM	15 min	5,571.55	1333.28	0.00	0.00
Jul 5	10:30 AM	15 min	5,094.72	1218.92	0.00	0.00
Jul 5	10:45 AM	15 min	4,656.63	1113.43	0.00	0.00
Jul 5	11:00 AM	15 min	4,250.81	1015.47	0.00	0.00
Jul 5	11:15 AM	15 min	3,872.92	924.38	0.00	0.00
Jul 5	11:30 AM	15 min	3,522.08	842.18	0.00	0.00
Jul 5	11:45 AM	15 min	3,215.40	780.71	0.00	0.00
Jul 5	12:00 PM	15 min	3,030.27	739.61	0.00	0.00
Jul 5	12:15 PM	15 min	2,886.62	707.48	0.00	0.00
Jul 5	12:30 PM	15 min	2,773.26	684.23	0.00	0.00
Jul 5	12:45 PM	15 min	2,700.61	667.97	0.00	0.00
Jul 5	1:00 PM	15 min	2,643.15	655.43	0.00	0.00
Jul 5	1:15 PM	15 min	2,600.26	646.32	0.00	0.00
Jul 5	1:30 PM	15 min	2,570.32	639.43	0.00	0.00
Jul 5	1:45 PM	15 min	2,545.14	634.04	0.00	0.00
Jul 5	2:00 PM	15 min	2,527.16	630.11	0.00	0.00
Jul 5	2:15 PM	15 min	2,513.71	627.16	0.00	0.00
Jul 5	2:30 PM	15 min	2,503.56	625.03	0.00	0.00
Jul 5	2:45 PM	15 min	2,496.67	623.83	0.00	0.00
Jul 5	3:00 PM	15 min	2,493.93	623.53	0.00	0.00
Jul 5	3:15 PM	15 min	2,494.30	623.91	0.00	0.00
Jul 5	3:30 PM	15 min	2,496.95	624.76	0.00	0.00
Jul 5	3:45 PM	15 min	2,501.14	625.98	0.00	0.00
Jul 5	4:00 PM	15 min	2,506.72	627.88	0.00	0.00
Jul 5	4:15 PM	15 min	2,516.35	630.76	0.00	0.00
Jul 5	4:30 PM	15 min	2,529.74	634.57	0.00	0.00
Jul 5	4:45 PM	15 min	2,546.86	634.38	0.00	0.00
Jul 5	5:00 PM	15 min	2,528.19	629.97	0.00	0.00
Jul 5	5:15 PM	15 min	2,511.55	624.66	0.00	0.00
Jul 5	5:30 PM	15 min	2,485.73	615.45	0.00	0.00
Jul 5	5:45 PM	15 min	2,437.90	601.39	0.00	0.00
Jul 5	6:00 PM	15 min	2,373.19	616.82	0.00	0.00
Jul 5	6:15 PM	15 min	2,561.35	682.33	0.00	0.00
Jul 5	6:30 PM	15 min	2,897.31	800.17	0.00	0.00
Jul 5	6:45 PM	15 min	3,504.08	1032.69	0.00	0.00
Jul 5	7:00 PM	15 min	4,757.41	1369.51	0.00	0.00
Jul 5	7:15 PM	15 min	6,198.69	1779.51	0.00	0.00
Jul 5	7:30 PM	5 min	8,037.42	743.92	0.00	0.00
Jul 5	7:35 PM	0 min	8,494.06		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jul 12	6:58 AM	2 min	8,495.15	339.81	0.00	0.00
Jul 12	7:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 12	7:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 12	7:30 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 12	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 12	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 12	8:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 12	8:30 AM	15 min	8,495.15	2123.78	0.00	0.00
Jul 12	8:45 AM	15 min	8,495.10	2106.20	0.00	0.00
Jul 12	9:00 AM	15 min	8,354.53	2032.68	0.00	0.00
Jul 12	9:15 AM	15 min	7,906.93	1900.96	0.00	0.00
Jul 12	9:30 AM	15 min	7,300.74	1743.45	0.00	0.00
Jul 12	9:45 AM	15 min	6,646.90	1588.55	0.00	0.00
Jul 12	10:00 AM	15 min	6,061.46	1449.30	0.00	0.00
Jul 12	10:15 AM	15 min	5,532.94	1322.98	0.00	0.00
Jul 12	10:30 AM	15 min	5,050.88	1207.39	0.00	0.00
Jul 12	10:45 AM	15 min	4,608.21	1100.83	0.00	0.00
Jul 12	11:00 AM	15 min	4,198.40	1001.91	0.00	0.00
Jul 12	11:15 AM	15 min	3,816.90	910.32	0.00	0.00
Jul 12	11:30 AM	15 min	3,465.67	829.86	0.00	0.00
Jul 12	11:45 AM	15 min	3,173.24	771.68	0.00	0.00
Jul 12	12:00 PM	15 min	3,000.17	732.18	0.00	0.00
Jul 12	12:15 PM	15 min	2,857.28	701.78	0.00	0.00
Jul 12	12:30 PM	15 min	2,756.92	680.77	0.00	0.00
Jul 12	12:45 PM	15 min	2,689.21	665.41	0.00	0.00
Jul 12	1:00 PM	15 min	2,634.05	653.46	0.00	0.00
Jul 12	1:15 PM	15 min	2,593.63	645.01	0.00	0.00
Jul 12	1:30 PM	15 min	2,566.47	638.89	0.00	0.00
Jul 12	1:45 PM	15 min	2,544.61	634.20	0.00	0.00
Jul 12	2:00 PM	15 min	2,529.01	630.72	0.00	0.00
Jul 12	2:15 PM	15 min	2,516.75	628.19	0.00	0.00
Jul 12	2:30 PM	15 min	2,508.74	626.60	0.00	0.00
Jul 12	2:45 PM	15 min	2,504.03	625.92	0.00	0.00
Jul 12	3:00 PM	15 min	2,503.31	626.18	0.00	0.00
Jul 12	3:15 PM	15 min	2,506.09	627.17	0.00	0.00
Jul 12	3:30 PM	15 min	2,511.28	628.70	0.00	0.00
Jul 12	3:45 PM	15 min	2,518.30	630.73	0.00	0.00
Jul 12	4:00 PM	15 min	2,527.56	633.50	0.00	0.00
Jul 12	4:15 PM	15 min	2,540.46	637.31	0.00	0.00
Jul 12	4:30 PM	15 min	2,558.01	642.15	0.00	0.00
Jul 12	4:45 PM	15 min	2,579.22	642.24	0.00	0.00
Jul 12	5:00 PM	15 min	2,558.74	637.95	0.00	0.00
Jul 12	5:15 PM	15 min	2,544.83	632.86	0.00	0.00
Jul 12	5:30 PM	15 min	2,518.06	623.55	0.00	0.00
Jul 12	5:45 PM	15 min	2,470.35	610.89	0.00	0.00
Jul 12	6:00 PM	15 min	2,416.77	637.23	0.00	0.00
Jul 12	6:15 PM	15 min	2,681.08	722.02	0.00	0.00
Jul 12	6:30 PM	15 min	3,095.08	866.23	0.00	0.00
Jul 12	6:45 PM	15 min	3,834.74	1133.12	0.00	0.00
Jul 12	7:00 PM	15 min	5,230.22	1476.07	0.00	0.00
Jul 12	7:15 PM	15 min	6,578.33	1876.20	0.00	0.00
Jul 12	7:30 PM	2 min	8,431.23	338.10	0.00	0.00
Jul 12	7:32 PM	0 min	8,473.53		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jul 19	7:03 AM	12 min	8,495.15	1699.03	0.00	0.00
Jul 19	7:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 19	7:30 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 19	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 19	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 19	8:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 19	8:30 AM	15 min	8,495.15	2123.69	0.00	0.00
Jul 19	8:45 AM	15 min	8,494.40	2103.70	0.00	0.00
Jul 19	9:00 AM	15 min	8,335.17	2025.54	0.00	0.00
Jul 19	9:15 AM	15 min	7,869.13	1889.20	0.00	0.00
Jul 19	9:30 AM	15 min	7,244.44	1728.16	0.00	0.00
Jul 19	9:45 AM	15 min	6,580.81	1571.05	0.00	0.00
Jul 19	10:00 AM	15 min	5,987.58	1430.06	0.00	0.00
Jul 19	10:15 AM	15 min	5,452.90	1302.35	0.00	0.00
Jul 19	10:30 AM	15 min	4,965.89	1185.60	0.00	0.00
Jul 19	10:45 AM	15 min	4,518.91	1078.02	0.00	0.00
Jul 19	11:00 AM	15 min	4,105.24	978.21	0.00	0.00
Jul 19	11:15 AM	15 min	3,720.45	886.67	0.00	0.00
Jul 19	11:30 AM	15 min	3,372.94	811.07	0.00	0.00
Jul 19	11:45 AM	15 min	3,115.65	758.46	0.00	0.00
Jul 19	12:00 PM	15 min	2,952.05	721.20	0.00	0.00
Jul 19	12:15 PM	15 min	2,817.51	694.05	0.00	0.00
Jul 19	12:30 PM	15 min	2,734.92	675.89	0.00	0.00
Jul 19	12:45 PM	15 min	2,672.22	661.63	0.00	0.00
Jul 19	1:00 PM	15 min	2,620.85	650.75	0.00	0.00
Jul 19	1:15 PM	15 min	2,585.18	643.39	0.00	0.00
Jul 19	1:30 PM	15 min	2,561.97	638.35	0.00	0.00
Jul 19	1:45 PM	15 min	2,544.84	634.66	0.00	0.00
Jul 19	2:00 PM	15 min	2,532.42	631.82	0.00	0.00
Jul 19	2:15 PM	15 min	2,522.10	629.93	0.00	0.00
Jul 19	2:30 PM	15 min	2,517.35	629.17	0.00	0.00
Jul 19	2:45 PM	15 min	2,515.99	629.27	0.00	0.00
Jul 19	3:00 PM	15 min	2,518.14	630.34	0.00	0.00
Jul 19	3:15 PM	15 min	2,524.61	632.25	0.00	0.00
Jul 19	3:30 PM	15 min	2,533.38	634.74	0.00	0.00
Jul 19	3:45 PM	15 min	2,544.53	637.94	0.00	0.00
Jul 19	4:00 PM	15 min	2,558.96	641.99	0.00	0.00
Jul 19	4:15 PM	15 min	2,576.93	647.04	0.00	0.00
Jul 19	4:30 PM	15 min	2,599.40	652.35	0.00	0.00
Jul 19	4:45 PM	15 min	2,619.40	652.71	0.00	0.00
Jul 19	5:00 PM	15 min	2,602.31	648.90	0.00	0.00
Jul 19	5:15 PM	15 min	2,588.89	643.65	0.00	0.00
Jul 19	5:30 PM	15 min	2,560.31	634.63	0.00	0.00
Jul 19	5:45 PM	15 min	2,516.70	625.11	0.00	0.00
Jul 19	6:00 PM	15 min	2,484.21	670.94	0.00	0.00
Jul 19	6:15 PM	15 min	2,883.31	789.90	0.00	0.00
Jul 19	6:30 PM	15 min	3,435.90	980.65	0.00	0.00
Jul 19	6:45 PM	15 min	4,409.33	1289.55	0.00	0.00
Jul 19	7:00 PM	15 min	5,907.07	1626.76	0.00	0.00
Jul 19	7:15 PM	14 min	7,106.99	1871.43	0.00	0.00
Jul 19	7:29 PM	0 min	8,488.25		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jul 26	7:09 AM	6 min	8,495.15	849.52	0.00	0.00
Jul 26	7:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 26	7:30 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 26	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 26	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 26	8:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Jul 26	8:30 AM	15 min	8,495.15	2123.19	0.00	0.00
Jul 26	8:45 AM	15 min	8,490.38	2098.01	0.00	0.00
Jul 26	9:00 AM	15 min	8,293.72	2011.27	0.00	0.00
Jul 26	9:15 AM	15 min	7,796.43	1867.32	0.00	0.00
Jul 26	9:30 AM	15 min	7,142.17	1701.46	0.00	0.00
Jul 26	9:45 AM	15 min	6,469.51	1542.35	0.00	0.00
Jul 26	10:00 AM	15 min	5,869.32	1399.83	0.00	0.00
Jul 26	10:15 AM	15 min	5,329.29	1270.91	0.00	0.00
Jul 26	10:30 AM	15 min	4,837.97	1153.13	0.00	0.00
Jul 26	10:45 AM	15 min	4,387.03	1044.65	0.00	0.00
Jul 26	11:00 AM	15 min	3,970.17	944.50	0.00	0.00
Jul 26	11:15 AM	15 min	3,585.85	854.60	0.00	0.00
Jul 26	11:30 AM	15 min	3,250.97	786.86	0.00	0.00
Jul 26	11:45 AM	15 min	3,043.94	741.22	0.00	0.00
Jul 26	12:00 PM	15 min	2,885.78	708.05	0.00	0.00
Jul 26	12:15 PM	15 min	2,778.58	686.14	0.00	0.00
Jul 26	12:30 PM	15 min	2,710.51	670.31	0.00	0.00
Jul 26	12:45 PM	15 min	2,651.99	657.30	0.00	0.00
Jul 26	1:00 PM	15 min	2,606.42	647.86	0.00	0.00
Jul 26	1:15 PM	15 min	2,576.48	641.99	0.00	0.00
Jul 26	1:30 PM	15 min	2,559.47	638.35	0.00	0.00
Jul 26	1:45 PM	15 min	2,547.36	635.80	0.00	0.00
Jul 26	2:00 PM	15 min	2,539.03	633.84	0.00	0.00
Jul 26	2:15 PM	15 min	2,531.67	632.86	0.00	0.00
Jul 26	2:30 PM	15 min	2,531.22	633.19	0.00	0.00
Jul 26	2:45 PM	15 min	2,534.29	634.40	0.00	0.00
Jul 26	3:00 PM	15 min	2,540.88	636.57	0.00	0.00
Jul 26	3:15 PM	15 min	2,551.69	639.66	0.00	0.00
Jul 26	3:30 PM	15 min	2,565.59	643.47	0.00	0.00
Jul 26	3:45 PM	15 min	2,582.18	648.08	0.00	0.00
Jul 26	4:00 PM	15 min	2,602.47	653.69	0.00	0.00
Jul 26	4:15 PM	15 min	2,627.08	660.45	0.00	0.00
Jul 26	4:30 PM	15 min	2,656.54	666.08	0.00	0.00
Jul 26	4:45 PM	15 min	2,672.09	666.70	0.00	0.00
Jul 26	5:00 PM	15 min	2,661.47	663.08	0.00	0.00
Jul 26	5:15 PM	15 min	2,643.15	656.88	0.00	0.00
Jul 26	5:30 PM	15 min	2,611.88	649.71	0.00	0.00
Jul 26	5:45 PM	15 min	2,585.82	660.38	0.00	0.00
Jul 26	6:00 PM	15 min	2,697.24	745.88	0.00	0.00
Jul 26	6:15 PM	15 min	3,269.78	904.17	0.00	0.00
Jul 26	6:30 PM	15 min	3,963.61	1154.82	0.00	0.00
Jul 26	6:45 PM	15 min	5,274.97	1481.94	0.00	0.00
Jul 26	7:00 PM	15 min	6,580.52	1792.35	0.00	0.00
Jul 26	7:15 PM	8 min	7,758.24	1137.73	0.00	0.00
Jul 26	7:23 PM	0 min	8,495.08		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 2	7:14 AM	1 min	8,495.15	169.90	0.00	0.00
Aug 2	7:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 2	7:30 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 2	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 2	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 2	8:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 2	8:30 AM	15 min	8,495.15	2121.55	0.00	0.00
Aug 2	8:45 AM	15 min	8,477.28	2087.51	0.00	0.00
Aug 2	9:00 AM	15 min	8,222.79	1988.16	0.00	0.00
Aug 2	9:15 AM	15 min	7,682.45	1834.12	0.00	0.00
Aug 2	9:30 AM	15 min	6,990.53	1662.60	0.00	0.00
Aug 2	9:45 AM	15 min	6,310.25	1501.83	0.00	0.00
Aug 2	10:00 AM	15 min	5,704.41	1358.07	0.00	0.00
Aug 2	10:15 AM	15 min	5,160.15	1228.23	0.00	0.00
Aug 2	10:30 AM	15 min	4,665.72	1109.68	0.00	0.00
Aug 2	10:45 AM	15 min	4,211.72	1000.57	0.00	0.00
Aug 2	11:00 AM	15 min	3,792.83	901.14	0.00	0.00
Aug 2	11:15 AM	15 min	3,416.26	818.87	0.00	0.00
Aug 2	11:30 AM	15 min	3,134.69	761.29	0.00	0.00
Aug 2	11:45 AM	15 min	2,955.61	722.04	0.00	0.00
Aug 2	12:00 PM	15 min	2,820.69	695.54	0.00	0.00
Aug 2	12:15 PM	15 min	2,743.63	678.45	0.00	0.00
Aug 2	12:30 PM	15 min	2,683.97	664.49	0.00	0.00
Aug 2	12:45 PM	15 min	2,631.92	653.29	0.00	0.00
Aug 2	1:00 PM	15 min	2,594.36	645.74	0.00	0.00
Aug 2	1:15 PM	15 min	2,571.57	641.60	0.00	0.00
Aug 2	1:30 PM	15 min	2,561.24	639.45	0.00	0.00
Aug 2	1:45 PM	15 min	2,554.40	638.16	0.00	0.00
Aug 2	2:00 PM	15 min	2,550.92	637.48	0.00	0.00
Aug 2	2:15 PM	15 min	2,548.92	637.68	0.00	0.00
Aug 2	2:30 PM	15 min	2,552.52	639.26	0.00	0.00
Aug 2	2:45 PM	15 min	2,561.56	641.94	0.00	0.00
Aug 2	3:00 PM	15 min	2,573.96	645.46	0.00	0.00
Aug 2	3:15 PM	15 min	2,589.70	649.84	0.00	0.00
Aug 2	3:30 PM	15 min	2,608.99	655.14	0.00	0.00
Aug 2	3:45 PM	15 min	2,632.16	661.52	0.00	0.00
Aug 2	4:00 PM	15 min	2,660.03	669.18	0.00	0.00
Aug 2	4:15 PM	15 min	2,693.40	678.33	0.00	0.00
Aug 2	4:30 PM	15 min	2,733.25	684.21	0.00	0.00
Aug 2	4:45 PM	15 min	2,740.45	683.99	0.00	0.00
Aug 2	5:00 PM	15 min	2,731.47	679.99	0.00	0.00
Aug 2	5:15 PM	15 min	2,708.45	674.08	0.00	0.00
Aug 2	5:30 PM	15 min	2,684.17	671.96	0.00	0.00
Aug 2	5:45 PM	15 min	2,691.49	724.01	0.00	0.00
Aug 2	6:00 PM	15 min	3,100.56	862.76	0.00	0.00
Aug 2	6:15 PM	15 min	3,801.53	1071.35	0.00	0.00
Aug 2	6:30 PM	15 min	4,769.24	1378.03	0.00	0.00
Aug 2	6:45 PM	15 min	6,254.99	1690.25	0.00	0.00
Aug 2	7:00 PM	15 min	7,267.03	1955.82	0.00	0.00
Aug 2	7:15 PM	2 min	8,379.55	337.07	0.00	0.00
Aug 2	7:17 PM	0 min	8,473.71		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 9	7:20 AM	11 min	8,495.15	1529.13	0.00	0.00
Aug 9	7:30 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 9	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 9	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 9	8:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 9	8:30 AM	15 min	8,495.15	2117.77	0.00	0.00
Aug 9	8:45 AM	15 min	8,446.99	2069.86	0.00	0.00
Aug 9	9:00 AM	15 min	8,111.90	1953.84	0.00	0.00
Aug 9	9:15 AM	15 min	7,518.85	1788.24	0.00	0.00
Aug 9	9:30 AM	15 min	6,787.09	1611.05	0.00	0.00
Aug 9	9:45 AM	15 min	6,101.34	1449.16	0.00	0.00
Aug 9	10:00 AM	15 min	5,491.97	1304.62	0.00	0.00
Aug 9	10:15 AM	15 min	4,944.97	1174.16	0.00	0.00
Aug 9	10:30 AM	15 min	4,448.33	1055.21	0.00	0.00
Aug 9	10:45 AM	15 min	3,993.35	946.67	0.00	0.00
Aug 9	11:00 AM	15 min	3,580.04	852.08	0.00	0.00
Aug 9	11:15 AM	15 min	3,236.56	782.28	0.00	0.00
Aug 9	11:30 AM	15 min	3,021.68	735.39	0.00	0.00
Aug 9	11:45 AM	15 min	2,861.44	704.32	0.00	0.00
Aug 9	12:00 PM	15 min	2,773.10	685.77	0.00	0.00
Aug 9	12:15 PM	15 min	2,713.03	671.42	0.00	0.00
Aug 9	12:30 PM	15 min	2,658.35	659.37	0.00	0.00
Aug 9	12:45 PM	15 min	2,616.58	650.60	0.00	0.00
Aug 9	1:00 PM	15 min	2,588.24	645.20	0.00	0.00
Aug 9	1:15 PM	15 min	2,573.38	642.78	0.00	0.00
Aug 9	1:30 PM	15 min	2,568.84	642.14	0.00	0.00
Aug 9	1:45 PM	15 min	2,568.25	642.43	0.00	0.00
Aug 9	2:00 PM	15 min	2,571.23	643.37	0.00	0.00
Aug 9	2:15 PM	15 min	2,575.76	645.06	0.00	0.00
Aug 9	2:30 PM	15 min	2,584.69	648.16	0.00	0.00
Aug 9	2:45 PM	15 min	2,600.57	652.41	0.00	0.00
Aug 9	3:00 PM	15 min	2,618.74	657.29	0.00	0.00
Aug 9	3:15 PM	15 min	2,639.60	663.11	0.00	0.00
Aug 9	3:30 PM	15 min	2,665.26	670.27	0.00	0.00
Aug 9	3:45 PM	15 min	2,696.92	678.94	0.00	0.00
Aug 9	4:00 PM	15 min	2,734.56	689.25	0.00	0.00
Aug 9	4:15 PM	15 min	2,779.46	701.15	0.00	0.00
Aug 9	4:30 PM	15 min	2,829.73	706.84	0.00	0.00
Aug 9	4:45 PM	15 min	2,824.96	704.55	0.00	0.00
Aug 9	5:00 PM	15 min	2,811.44	700.23	0.00	0.00
Aug 9	5:15 PM	15 min	2,790.38	698.43	0.00	0.00
Aug 9	5:30 PM	15 min	2,797.06	720.12	0.00	0.00
Aug 9	5:45 PM	15 min	2,963.88	827.08	0.00	0.00
Aug 9	6:00 PM	15 min	3,652.74	1017.43	0.00	0.00
Aug 9	6:15 PM	15 min	4,486.74	1299.44	0.00	0.00
Aug 9	6:30 PM	15 min	5,908.77	1620.03	0.00	0.00
Aug 9	6:45 PM	15 min	7,051.49	1847.12	0.00	0.00
Aug 9	7:00 PM	9 min	7,725.47	1194.33	0.00	0.00
Aug 9	7:09 PM	0 min	8,198.92		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 16	7:26 AM	4 min	8,495.15	594.66	0.00	0.00
Aug 16	7:30 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 16	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 16	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 16	8:15 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 16	8:30 AM	15 min	8,495.15	2110.34	0.00	0.00
Aug 16	8:45 AM	15 min	8,387.53	2042.44	0.00	0.00
Aug 16	9:00 AM	15 min	7,952.01	1906.03	0.00	0.00
Aug 16	9:15 AM	15 min	7,296.21	1728.35	0.00	0.00
Aug 16	9:30 AM	15 min	6,530.61	1546.61	0.00	0.00
Aug 16	9:45 AM	15 min	5,842.25	1384.22	0.00	0.00
Aug 16	10:00 AM	15 min	5,231.51	1239.38	0.00	0.00
Aug 16	10:15 AM	15 min	4,683.53	1108.77	0.00	0.00
Aug 16	10:30 AM	15 min	4,186.63	990.29	0.00	0.00
Aug 16	10:45 AM	15 min	3,735.72	884.75	0.00	0.00
Aug 16	11:00 AM	15 min	3,342.26	803.08	0.00	0.00
Aug 16	11:15 AM	15 min	3,082.38	747.86	0.00	0.00
Aug 16	11:30 AM	15 min	2,900.53	712.52	0.00	0.00
Aug 16	11:45 AM	15 min	2,799.62	692.21	0.00	0.00
Aug 16	12:00 PM	15 min	2,738.05	677.77	0.00	0.00
Aug 16	12:15 PM	15 min	2,684.08	665.44	0.00	0.00
Aug 16	12:30 PM	15 min	2,639.40	656.21	0.00	0.00
Aug 16	12:45 PM	15 min	2,610.31	650.38	0.00	0.00
Aug 16	1:00 PM	15 min	2,592.70	647.18	0.00	0.00
Aug 16	1:15 PM	15 min	2,584.74	646.39	0.00	0.00
Aug 16	1:30 PM	15 min	2,586.40	647.39	0.00	0.00
Aug 16	1:45 PM	15 min	2,592.69	649.46	0.00	0.00
Aug 16	2:00 PM	15 min	2,602.99	652.29	0.00	0.00
Aug 16	2:15 PM	15 min	2,615.36	655.58	0.00	0.00
Aug 16	2:30 PM	15 min	2,629.29	660.03	0.00	0.00
Aug 16	2:45 PM	15 min	2,650.94	665.81	0.00	0.00
Aug 16	3:00 PM	15 min	2,675.53	672.38	0.00	0.00
Aug 16	3:15 PM	15 min	2,703.52	680.12	0.00	0.00
Aug 16	3:30 PM	15 min	2,737.41	689.65	0.00	0.00
Aug 16	3:45 PM	15 min	2,779.83	701.25	0.00	0.00
Aug 16	4:00 PM	15 min	2,830.18	715.03	0.00	0.00
Aug 16	4:15 PM	15 min	2,890.07	727.08	0.00	0.00
Aug 16	4:30 PM	15 min	2,926.53	730.78	0.00	0.00
Aug 16	4:45 PM	15 min	2,919.69	728.03	0.00	0.00
Aug 16	5:00 PM	15 min	2,904.58	728.34	0.00	0.00
Aug 16	5:15 PM	15 min	2,922.15	748.24	0.00	0.00
Aug 16	5:30 PM	15 min	3,063.77	824.85	0.00	0.00
Aug 16	5:45 PM	15 min	3,535.01	987.87	0.00	0.00
Aug 16	6:00 PM	15 min	4,367.93	1233.32	0.00	0.00
Aug 16	6:15 PM	15 min	5,498.65	1543.48	0.00	0.00
Aug 16	6:30 PM	15 min	6,849.21	1803.80	0.00	0.00
Aug 16	6:45 PM	15 min	7,581.22	1946.68	0.00	0.00
Aug 16	7:00 PM	1 min	7,992.22	160.13	0.00	0.00
Aug 16	7:01 PM	0 min	8,020.35		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 23	7:32 AM	13 min	8,495.15	424.76	0.00	0.00
Aug 23	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 23	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 23	8:15 AM	15 min	8,495.15	2123.75	0.00	0.00
Aug 23	8:30 AM	15 min	8,494.82	2097.34	0.00	0.00
Aug 23	8:45 AM	15 min	8,283.90	2002.79	0.00	0.00
Aug 23	9:00 AM	15 min	7,738.42	1842.90	0.00	0.00
Aug 23	9:15 AM	15 min	7,004.77	1653.21	0.00	0.00
Aug 23	9:30 AM	15 min	6,220.88	1469.25	0.00	0.00
Aug 23	9:45 AM	15 min	5,533.15	1307.08	0.00	0.00
Aug 23	10:00 AM	15 min	4,923.46	1162.48	0.00	0.00
Aug 23	10:15 AM	15 min	4,376.36	1032.56	0.00	0.00
Aug 23	10:30 AM	15 min	3,884.13	916.88	0.00	0.00
Aug 23	10:45 AM	15 min	3,450.88	824.24	0.00	0.00
Aug 23	11:00 AM	15 min	3,143.03	759.99	0.00	0.00
Aug 23	11:15 AM	15 min	2,936.91	720.08	0.00	0.00
Aug 23	11:30 AM	15 min	2,823.69	697.93	0.00	0.00
Aug 23	11:45 AM	15 min	2,759.78	683.57	0.00	0.00
Aug 23	12:00 PM	15 min	2,708.76	671.45	0.00	0.00
Aug 23	12:15 PM	15 min	2,662.80	661.96	0.00	0.00
Aug 23	12:30 PM	15 min	2,632.88	656.24	0.00	0.00
Aug 23	12:45 PM	15 min	2,617.06	653.18	0.00	0.00
Aug 23	1:00 PM	15 min	2,608.34	652.15	0.00	0.00
Aug 23	1:15 PM	5 min	2,608.84	652.56	0.00	0.00
Aug 23	1:20 PM	24 min	2,611.65	655.38	0.00	0.00
Aug 23	1:45 PM	15 min	2,631.39	660.04	0.00	0.00
Aug 23	2:00 PM	15 min	2,648.94	664.56	0.00	0.00
Aug 23	2:15 PM	15 min	2,667.52	669.28	0.00	0.00
Aug 23	2:30 PM	15 min	2,686.69	675.09	0.00	0.00
Aug 23	2:45 PM	15 min	2,714.06	682.57	0.00	0.00
Aug 23	3:00 PM	15 min	2,746.47	691.38	0.00	0.00
Aug 23	3:15 PM	15 min	2,784.60	701.78	0.00	0.00
Aug 23	3:30 PM	15 min	2,829.64	714.30	0.00	0.00
Aug 23	3:45 PM	15 min	2,884.80	729.53	0.00	0.00
Aug 23	4:00 PM	15 min	2,951.43	747.89	0.00	0.00
Aug 23	4:15 PM	15 min	3,031.70	758.29	0.00	0.00
Aug 23	4:30 PM	15 min	3,034.61	757.70	0.00	0.00
Aug 23	4:45 PM	15 min	3,027.01	761.93	0.00	0.00
Aug 23	5:00 PM	15 min	3,068.46	785.92	0.00	0.00
Aug 23	5:15 PM	15 min	3,218.88	836.39	0.00	0.00
Aug 23	5:30 PM	15 min	3,472.26	964.55	0.00	0.00
Aug 23	5:45 PM	15 min	4,244.12	1189.43	0.00	0.00
Aug 23	6:00 PM	15 min	5,271.30	1482.17	0.00	1.18
Aug 23	6:15 PM	15 min	6,586.05	1756.29	9.43	5.02
Aug 23	6:30 PM	15 min	7,464.24	1932.24	30.71	3.84
Aug 23	6:45 PM	6 min	7,993.72	2024.60	0.00	0.00
Aug 23	6:51 PM	0 min	8,203.06		0.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 30	7:38 AM	7 min	8,470.85	1017.96	0.00	0.00
Aug 30	7:45 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 30	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Aug 30	8:15 AM	15 min	8,495.15	2119.18	0.00	0.00
Aug 30	8:30 AM	15 min	8,458.26	2070.91	0.00	0.00
Aug 30	8:45 AM	15 min	8,108.99	1945.81	0.00	0.00
Aug 30	9:00 AM	15 min	7,457.51	1762.30	0.00	0.00
Aug 30	9:15 AM	15 min	6,640.88	1562.43	0.00	0.00
Aug 30	9:30 AM	15 min	5,858.58	1379.21	0.00	0.00
Aug 30	9:45 AM	15 min	5,175.09	1218.00	0.00	0.00
Aug 30	10:00 AM	15 min	4,568.93	1074.93	0.00	0.00
Aug 30	10:15 AM	15 min	4,030.49	948.33	0.00	0.00
Aug 30	10:30 AM	15 min	3,556.17	844.81	0.00	0.00
Aug 30	10:45 AM	15 min	3,202.34	771.27	0.00	0.00
Aug 30	11:00 AM	15 min	2,967.81	726.86	0.00	0.00
Aug 30	11:15 AM	15 min	2,847.06	703.29	0.00	0.00
Aug 30	11:30 AM	15 min	2,779.28	688.92	0.00	0.00
Aug 30	11:45 AM	15 min	2,732.09	677.37	0.00	0.00
Aug 30	12:00 PM	15 min	2,686.84	667.93	0.00	0.00
Aug 30	12:15 PM	15 min	2,656.58	662.46	0.00	0.00
Aug 30	12:30 PM	15 min	2,643.13	660.12	0.00	0.00
Aug 30	12:45 PM	15 min	2,637.80	659.30	0.00	0.00
Aug 30	1:00 PM	15 min	2,636.59	660.57	0.00	0.00
Aug 30	1:15 PM	15 min	2,648.01	663.99	0.00	0.00
Aug 30	1:30 PM	15 min	2,663.88	668.51	0.00	0.00
Aug 30	1:45 PM	15 min	2,684.24	673.96	0.00	0.00
Aug 30	2:00 PM	15 min	2,707.41	679.97	0.00	0.00
Aug 30	2:15 PM	15 min	2,732.38	686.39	0.00	0.00
Aug 30	2:30 PM	15 min	2,758.70	693.89	0.00	0.00
Aug 30	2:45 PM	15 min	2,792.46	703.50	0.00	0.00
Aug 30	3:00 PM	15 min	2,835.54	715.24	0.00	0.00
Aug 30	3:15 PM	15 min	2,886.35	729.07	0.00	0.00
Aug 30	3:30 PM	15 min	2,946.18	745.41	0.00	0.00
Aug 30	3:45 PM	15 min	3,017.06	765.29	0.00	0.00
Aug 30	4:00 PM	15 min	3,105.29	782.79	0.00	0.00
Aug 30	4:15 PM	15 min	3,156.99	789.04	0.00	0.00
Aug 30	4:30 PM	15 min	3,155.34	797.82	0.00	0.00
Aug 30	4:45 PM	15 min	3,227.19	826.37	0.00	0.00
Aug 30	5:00 PM	15 min	3,383.81	869.19	0.00	0.00
Aug 30	5:15 PM	15 min	3,569.69	971.54	0.00	0.00
Aug 30	5:30 PM	15 min	4,202.63	1166.39	0.00	0.00
Aug 30	5:45 PM	15 min	5,128.53	1418.63	0.00	3.57
Aug 30	6:00 PM	15 min	6,220.49	1687.21	28.53	32.61
Aug 30	6:15 PM	15 min	7,277.22	1907.61	232.39	53.05
Aug 30	6:30 PM	11 min	7,983.66	1550.66	192.01	20.84
Aug 30	6:41 PM	0 min	8,339.07		27.37	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Sep 6	7:44 AM	1 min	8,482.15	169.71	0.00	0.00
Sep 6	7:45 AM	15 min	8,489.08	2123.03	0.00	0.00
Sep 6	8:00 AM	15 min	8,495.15	2123.79	0.00	0.00
Sep 6	8:15 AM	15 min	8,495.15	2106.14	0.00	0.00
Sep 6	8:30 AM	15 min	8,353.98	2025.77	0.00	0.00
Sep 6	8:45 AM	15 min	7,852.17	1868.59	0.00	0.00
Sep 6	9:00 AM	15 min	7,096.57	1664.51	0.00	0.00
Sep 6	9:15 AM	15 min	6,219.47	1458.12	0.00	0.00
Sep 6	9:30 AM	15 min	5,445.47	1276.87	0.00	0.00
Sep 6	9:45 AM	15 min	4,769.51	1118.28	0.00	0.00
Sep 6	10:00 AM	15 min	4,176.72	979.23	0.00	0.00
Sep 6	10:15 AM	15 min	3,657.10	864.24	0.00	0.00
Sep 6	10:30 AM	15 min	3,256.83	781.14	0.00	0.00
Sep 6	10:45 AM	15 min	2,992.27	732.60	0.00	0.00
Sep 6	11:00 AM	15 min	2,868.52	708.43	0.00	0.00
Sep 6	11:15 AM	15 min	2,798.95	694.18	0.00	0.00
Sep 6	11:30 AM	15 min	2,754.51	683.32	0.00	0.00
Sep 6	11:45 AM	15 min	2,712.07	674.31	0.00	0.00
Sep 6	12:00 PM	15 min	2,682.39	669.26	0.00	0.00
Sep 6	12:15 PM	15 min	2,671.73	667.78	0.00	0.00
Sep 6	12:30 PM	15 min	2,670.55	668.01	0.00	0.00
Sep 6	12:45 PM	15 min	2,673.52	669.33	0.00	0.00
Sep 6	1:00 PM	15 min	2,681.12	672.96	0.00	0.00
Sep 6	1:15 PM	15 min	2,702.56	678.28	0.00	0.00
Sep 6	1:30 PM	15 min	2,723.66	684.21	0.00	0.00
Sep 6	1:45 PM	15 min	2,749.99	691.20	0.00	0.00
Sep 6	2:00 PM	15 min	2,779.60	698.97	0.00	0.00
Sep 6	2:15 PM	15 min	2,812.13	707.38	0.00	0.00
Sep 6	2:30 PM	15 min	2,846.92	717.08	0.00	0.00
Sep 6	2:45 PM	15 min	2,889.69	729.54	0.00	0.00
Sep 6	3:00 PM	15 min	2,946.63	744.96	0.00	0.00
Sep 6	3:15 PM	15 min	3,013.06	763.00	0.00	0.00
Sep 6	3:30 PM	15 min	3,090.96	784.44	0.00	0.00
Sep 6	3:45 PM	15 min	3,184.53	809.12	0.00	0.00
Sep 6	4:00 PM	15 min	3,288.42	822.61	0.00	0.00
Sep 6	4:15 PM	15 min	3,292.46	835.96	0.00	0.00
Sep 6	4:30 PM	15 min	3,395.22	868.77	0.00	0.00
Sep 6	4:45 PM	15 min	3,554.97	913.75	0.00	0.00
Sep 6	5:00 PM	15 min	3,755.00	993.70	0.00	0.00
Sep 6	5:15 PM	15 min	4,194.64	1160.02	0.00	0.00
Sep 6	5:30 PM	15 min	5,085.51	1393.62	0.00	2.43
Sep 6	5:45 PM	15 min	6,063.43	1618.16	19.42	36.34
Sep 6	6:00 PM	15 min	6,881.87	1820.91	271.33	56.90
Sep 6	6:15 PM	15 min	7,685.40	2009.14	183.88	33.31
Sep 6	6:30 PM	1 min	8,387.72	167.91	82.59	1.61
Sep 6	6:31 PM	0 min	8,402.86		78.88	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Sep 13	7:50 AM	10 min	8,488.09	1443.58	0.00	0.00
Sep 13	8:00 AM	15 min	8,495.15	2121.90	0.00	0.00
Sep 13	8:15 AM	15 min	8,480.07	2080.09	0.00	0.00
Sep 13	8:30 AM	15 min	8,160.67	1959.01	0.00	0.00
Sep 13	8:45 AM	15 min	7,511.38	1770.33	0.00	0.00
Sep 13	9:00 AM	15 min	6,651.24	1549.50	0.00	0.00
Sep 13	9:15 AM	15 min	5,744.79	1341.10	0.00	0.00
Sep 13	9:30 AM	15 min	4,984.01	1163.98	0.00	0.00
Sep 13	9:45 AM	15 min	4,327.81	1010.62	0.00	0.00
Sep 13	10:00 AM	15 min	3,757.19	883.05	0.00	0.00
Sep 13	10:15 AM	15 min	3,307.24	790.32	0.00	0.00
Sep 13	10:30 AM	15 min	3,015.31	738.00	0.00	0.00
Sep 13	10:45 AM	15 min	2,888.68	713.27	0.00	0.00
Sep 13	11:00 AM	15 min	2,817.49	699.35	0.00	0.00
Sep 13	11:15 AM	15 min	2,777.28	689.56	0.00	0.00
Sep 13	11:30 AM	15 min	2,739.21	681.27	0.00	0.00
Sep 13	11:45 AM	15 min	2,710.93	676.83	0.00	0.00
Sep 13	12:00 PM	15 min	2,703.72	676.40	0.00	0.00
Sep 13	12:15 PM	15 min	2,707.48	677.82	0.00	0.00
Sep 13	12:30 PM	15 min	2,715.08	680.04	0.00	0.00
Sep 13	12:45 PM	15 min	2,725.22	683.32	0.00	0.00
Sep 13	1:00 PM	15 min	2,741.35	688.81	0.00	0.00
Sep 13	1:15 PM	15 min	2,769.13	695.80	0.00	0.00
Sep 13	1:30 PM	15 min	2,797.28	703.47	0.00	0.00
Sep 13	1:45 PM	15 min	2,830.49	712.27	0.00	0.00
Sep 13	2:00 PM	15 min	2,867.65	722.10	0.00	0.00
Sep 13	2:15 PM	15 min	2,909.12	733.07	0.00	0.00
Sep 13	2:30 PM	15 min	2,955.43	745.72	0.00	0.00
Sep 13	2:45 PM	15 min	3,010.32	761.71	0.00	0.00
Sep 13	3:00 PM	15 min	3,083.37	781.56	0.00	0.00
Sep 13	3:15 PM	15 min	3,169.12	805.04	0.00	0.00
Sep 13	3:30 PM	15 min	3,271.23	832.19	0.00	0.00
Sep 13	3:45 PM	15 min	3,386.30	855.74	0.00	0.00
Sep 13	4:00 PM	15 min	3,459.63	878.96	0.00	0.00
Sep 13	4:15 PM	15 min	3,572.08	913.16	0.00	0.00
Sep 13	4:30 PM	15 min	3,733.22	959.62	0.00	0.00
Sep 13	4:45 PM	15 min	3,943.77	1016.64	0.00	0.00
Sep 13	5:00 PM	15 min	4,189.39	1150.57	0.00	0.00
Sep 13	5:15 PM	15 min	5,015.19	1367.41	0.00	7.92
Sep 13	5:30 PM	15 min	5,924.12	1573.96	63.39	39.39
Sep 13	5:45 PM	15 min	6,667.60	1751.07	251.69	53.35
Sep 13	6:00 PM	15 min	7,340.94	1920.98	175.14	37.97
Sep 13	6:15 PM	5 min	8,026.91	729.41	128.64	11.41
Sep 13	6:20 PM	0 min	8,182.15		124.87	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Sep 20	7:56 AM	5 min	8,495.15	679.61	0.00	0.00
Sep 20	8:00 AM	15 min	8,495.15	2108.09	0.00	0.00
Sep 20	8:15 AM	15 min	8,369.58	2028.82	0.00	0.00
Sep 20	8:30 AM	15 min	7,860.95	1866.63	0.00	0.00
Sep 20	8:45 AM	15 min	7,072.12	1648.65	0.00	0.00
Sep 20	9:00 AM	15 min	6,117.06	1417.84	0.00	0.00
Sep 20	9:15 AM	15 min	5,225.64	1214.29	0.00	0.00
Sep 20	9:30 AM	15 min	4,488.66	1043.50	0.00	0.00
Sep 20	9:45 AM	15 min	3,859.34	901.95	0.00	0.00
Sep 20	10:00 AM	15 min	3,356.28	799.23	0.00	0.00
Sep 20	10:15 AM	15 min	3,037.58	743.04	0.00	0.00
Sep 20	10:30 AM	15 min	2,906.74	717.99	0.00	0.00
Sep 20	10:45 AM	15 min	2,837.17	704.72	0.00	0.00
Sep 20	11:00 AM	15 min	2,800.60	696.28	0.00	0.00
Sep 20	11:15 AM	15 min	2,769.65	689.02	0.00	0.00
Sep 20	11:30 AM	15 min	2,742.47	685.17	0.00	0.00
Sep 20	11:45 AM	15 min	2,738.91	686.07	0.00	0.00
Sep 20	12:00 PM	15 min	2,749.64	688.82	0.00	0.00
Sep 20	12:15 PM	15 min	2,760.94	691.83	0.00	0.00
Sep 20	12:30 PM	15 min	2,773.71	695.43	0.00	0.00
Sep 20	12:45 PM	15 min	2,789.77	700.88	0.00	0.00
Sep 20	1:00 PM	15 min	2,817.31	708.48	0.00	0.00
Sep 20	1:15 PM	15 min	2,850.51	717.13	0.00	0.00
Sep 20	1:30 PM	15 min	2,886.53	726.76	0.00	0.00
Sep 20	1:45 PM	15 min	2,927.58	737.66	0.00	0.00
Sep 20	2:00 PM	15 min	2,973.69	750.09	0.00	0.00
Sep 20	2:15 PM	15 min	3,027.01	764.39	0.00	0.00
Sep 20	2:30 PM	15 min	3,088.14	780.88	0.00	0.00
Sep 20	2:45 PM	15 min	3,158.91	801.18	0.00	0.00
Sep 20	3:00 PM	15 min	3,250.49	826.43	0.00	0.00
Sep 20	3:15 PM	15 min	3,360.96	856.04	0.00	0.00
Sep 20	3:30 PM	15 min	3,487.34	891.78	0.00	0.00
Sep 20	3:45 PM	15 min	3,646.87	925.53	0.00	0.00
Sep 20	4:00 PM	15 min	3,757.40	959.40	0.00	0.00
Sep 20	4:15 PM	15 min	3,917.83	1005.25	0.00	0.00
Sep 20	4:30 PM	15 min	4,124.19	1055.25	0.00	0.00
Sep 20	4:45 PM	15 min	4,317.82	1156.34	0.00	0.48
Sep 20	5:00 PM	15 min	4,932.90	1336.40	3.85	20.97
Sep 20	5:15 PM	15 min	5,758.28	1526.18	163.88	65.02
Sep 20	5:30 PM	15 min	6,451.18	1683.74	356.24	73.85
Sep 20	5:45 PM	15 min	7,018.76	1844.59	234.55	48.46
Sep 20	6:00 PM	9 min	7,737.99	1189.84	153.14	22.49
Sep 20	6:09 PM	0 min	8,126.60		146.76	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Sep 27	8:02 AM	13 min	8,439.13	1820.99	0.00	0.00
Sep 27	8:15 AM	15 min	8,115.32	1943.88	0.00	0.00
Sep 27	8:30 AM	15 min	7,435.73	1744.74	0.00	0.00
Sep 27	8:45 AM	15 min	6,522.17	1506.47	0.00	0.00
Sep 27	9:00 AM	15 min	5,529.58	1275.65	0.00	0.00
Sep 27	9:15 AM	15 min	4,675.63	1080.15	0.00	0.00
Sep 27	9:30 AM	15 min	3,965.56	920.93	0.00	0.00
Sep 27	9:45 AM	15 min	3,401.84	807.90	0.00	0.00
Sep 27	10:00 AM	15 min	3,061.40	747.89	0.00	0.00
Sep 27	10:15 AM	15 min	2,921.72	722.32	0.00	0.00
Sep 27	10:30 AM	15 min	2,856.83	710.18	0.00	0.00
Sep 27	10:45 AM	15 min	2,824.63	703.50	0.00	0.00
Sep 27	11:00 AM	15 min	2,803.40	697.93	0.00	0.00
Sep 27	11:15 AM	15 min	2,780.03	694.74	0.00	0.00
Sep 27	11:30 AM	15 min	2,777.91	696.66	0.00	0.00
Sep 27	11:45 AM	15 min	2,795.40	700.80	0.00	0.00
Sep 27	12:00 PM	15 min	2,811.03	704.73	0.00	0.00
Sep 27	12:15 PM	15 min	2,826.83	709.03	0.00	0.00
Sep 27	12:30 PM	15 min	2,845.39	714.25	0.00	0.00
Sep 27	12:45 PM	15 min	2,868.64	722.17	0.00	0.00
Sep 27	1:00 PM	15 min	2,908.73	732.13	0.00	0.00
Sep 27	1:15 PM	15 min	2,948.33	742.65	0.00	0.00
Sep 27	1:30 PM	15 min	2,992.85	754.54	0.00	0.00
Sep 27	1:45 PM	15 min	3,043.44	768.09	0.00	0.00
Sep 27	2:00 PM	15 min	3,101.31	783.86	0.00	0.00
Sep 27	2:15 PM	15 min	3,169.53	802.18	0.00	0.00
Sep 27	2:30 PM	15 min	3,247.94	823.39	0.00	0.00
Sep 27	2:45 PM	15 min	3,339.19	849.05	0.00	0.00
Sep 27	3:00 PM	15 min	3,453.18	880.46	0.00	0.00
Sep 27	3:15 PM	15 min	3,590.49	924.32	0.00	0.00
Sep 27	3:30 PM	15 min	3,804.08	969.57	0.00	0.00
Sep 27	3:45 PM	15 min	3,952.46	1007.76	0.00	0.00
Sep 27	4:00 PM	15 min	4,109.60	1047.53	0.00	0.02
Sep 27	4:15 PM	15 min	4,270.62	1090.26	0.13	3.03
Sep 27	4:30 PM	15 min	4,451.47	1161.85	24.08	5.43
Sep 27	4:45 PM	15 min	4,843.31	1301.44	19.37	37.95
Sep 27	5:00 PM	15 min	5,568.25	1475.45	284.26	93.21
Sep 27	5:15 PM	15 min	6,235.33	1623.88	461.39	104.54
Sep 27	5:30 PM	15 min	6,755.69	1771.52	374.92	68.76
Sep 27	5:45 PM	13 min	7,416.47	1707.43	175.18	37.53
Sep 27	5:58 PM	0 min	8,105.60		166.02	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Oct 4	8:08 AM	7 min	7,980.44	939.97	0.00	0.00
Oct 4	8:15 AM	15 min	7,685.72	1821.63	0.00	0.00
Oct 4	8:30 AM	15 min	6,887.32	1593.70	0.00	0.00
Oct 4	8:45 AM	15 min	5,862.25	1346.79	0.00	0.00
Oct 4	9:00 AM	15 min	4,912.08	1126.08	0.00	0.00
Oct 4	9:15 AM	15 min	4,096.56	943.36	0.00	0.00
Oct 4	9:30 AM	15 min	3,450.35	816.94	0.00	0.00
Oct 4	9:45 AM	15 min	3,085.17	752.65	0.00	0.00
Oct 4	10:00 AM	15 min	2,936.03	726.61	0.00	0.00
Oct 4	10:15 AM	15 min	2,876.83	715.99	0.00	0.00
Oct 4	10:30 AM	15 min	2,851.09	711.54	0.00	0.00
Oct 4	10:45 AM	15 min	2,841.24	708.38	0.00	0.00
Oct 4	11:00 AM	15 min	2,825.79	706.03	0.00	0.00
Oct 4	11:15 AM	15 min	2,822.48	708.16	0.00	0.00
Oct 4	11:30 AM	15 min	2,842.83	713.43	0.00	0.00
Oct 4	11:45 AM	15 min	2,864.60	718.66	0.00	0.00
Oct 4	12:00 PM	15 min	2,884.66	723.84	0.00	0.00
Oct 4	12:15 PM	15 min	2,906.04	729.74	0.00	0.00
Oct 4	12:30 PM	15 min	2,931.88	736.95	0.00	0.00
Oct 4	12:45 PM	15 min	2,963.71	747.72	0.00	0.00
Oct 4	1:00 PM	15 min	3,018.04	760.21	0.00	0.00
Oct 4	1:15 PM	15 min	3,063.65	772.72	0.00	0.00
Oct 4	1:30 PM	15 min	3,118.15	787.33	0.00	0.00
Oct 4	1:45 PM	15 min	3,180.47	804.21	0.00	0.00
Oct 4	2:00 PM	15 min	3,253.25	824.04	0.00	0.00
Oct 4	2:15 PM	15 min	3,339.10	847.07	0.00	0.00
Oct 4	2:30 PM	15 min	3,437.49	873.81	0.00	0.00
Oct 4	2:45 PM	15 min	3,552.99	907.82	0.00	0.00
Oct 4	3:00 PM	15 min	3,709.55	955.77	0.00	0.00
Oct 4	3:15 PM	15 min	3,936.65	1011.23	0.00	0.00
Oct 4	3:30 PM	15 min	4,153.17	1053.33	0.00	0.00
Oct 4	3:45 PM	15 min	4,273.45	1084.67	0.00	2.16
Oct 4	4:00 PM	15 min	4,403.90	1121.52	17.29	11.44
Oct 4	4:15 PM	15 min	4,568.25	1166.68	74.24	35.36
Oct 4	4:30 PM	15 min	4,765.17	1272.08	208.62	89.77
Oct 4	4:45 PM	15 min	5,411.50	1430.20	509.51	154.68
Oct 4	5:00 PM	15 min	6,030.12	1568.05	727.89	160.19
Oct 4	5:15 PM	15 min	6,514.31	1696.14	553.67	102.63
Oct 4	5:30 PM	15 min	7,054.82	1874.32	267.40	56.32
Oct 4	5:45 PM	3 min	7,939.76	402.78	183.16	9.13
Oct 4	5:48 PM	0 min	8,171.42		182.03	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Oct 11	8:15 AM	15 min	7,102.06	1661.92	0.00	0.00
Oct 11	8:30 AM	15 min	6,193.32	1416.98	0.00	0.00
Oct 11	8:45 AM	15 min	5,142.55	1175.10	0.00	0.00
Oct 11	9:00 AM	15 min	4,258.28	972.44	0.00	0.00
Oct 11	9:15 AM	15 min	3,521.27	828.98	0.00	0.00
Oct 11	9:30 AM	15 min	3,110.55	758.10	0.00	0.00
Oct 11	9:45 AM	15 min	2,954.22	731.75	0.00	0.00
Oct 11	10:00 AM	15 min	2,899.81	722.86	0.00	0.00
Oct 11	10:15 AM	15 min	2,883.03	721.02	0.00	0.00
Oct 11	10:30 AM	15 min	2,885.15	720.82	0.00	0.00
Oct 11	10:45 AM	15 min	2,881.41	719.39	0.00	0.00
Oct 11	11:00 AM	15 min	2,873.73	720.93	0.00	0.00
Oct 11	11:15 AM	15 min	2,893.74	726.63	0.00	0.00
Oct 11	11:30 AM	15 min	2,919.33	733.22	0.00	0.00
Oct 11	11:45 AM	15 min	2,946.47	739.79	0.00	0.00
Oct 11	12:00 PM	15 min	2,971.88	746.48	0.00	0.00
Oct 11	12:15 PM	15 min	2,999.96	754.30	0.00	0.00
Oct 11	12:30 PM	15 min	3,034.40	763.82	0.00	0.00
Oct 11	12:45 PM	15 min	3,076.17	777.31	0.00	0.00
Oct 11	1:00 PM	15 min	3,142.28	792.47	0.00	0.00
Oct 11	1:15 PM	15 min	3,197.50	807.64	0.00	0.00
Oct 11	1:30 PM	15 min	3,263.64	825.43	0.00	0.00
Oct 11	1:45 PM	15 min	3,339.82	845.92	0.00	0.00
Oct 11	2:00 PM	15 min	3,427.52	869.86	0.00	0.00
Oct 11	2:15 PM	15 min	3,531.33	897.97	0.00	0.00
Oct 11	2:30 PM	15 min	3,652.46	935.39	0.00	0.00
Oct 11	2:45 PM	15 min	3,830.68	985.25	0.00	0.00
Oct 11	3:00 PM	15 min	4,051.35	1043.70	0.00	0.00
Oct 11	3:15 PM	15 min	4,298.28	1089.14	0.00	0.00
Oct 11	3:30 PM	15 min	4,414.82	1117.62	0.00	0.00
Oct 11	3:45 PM	15 min	4,526.10	1149.56	0.00	16.26
Oct 11	4:00 PM	15 min	4,670.38	1189.60	130.08	59.21
Oct 11	4:15 PM	15 min	4,846.45	1270.57	343.60	137.07
Oct 11	4:30 PM	15 min	5,318.09	1396.18	752.97	236.74
Oct 11	4:45 PM	15 min	5,851.33	1517.63	1,140.94	277.78
Oct 11	5:00 PM	15 min	6,289.74	1620.23	1,081.30	211.26
Oct 11	5:15 PM	15 min	6,672.06	1785.14	608.75	101.05
Oct 11	5:30 PM	7 min	7,609.07	944.77	199.65	23.78
Oct 11	5:37 PM	0 min	8,137.17		196.62	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Oct 18	8:21 AM	9 min	5,963.33	905.21	0.00	0.00
Oct 18	8:30 AM	15 min	5,351.82	1214.00	0.00	0.00
Oct 18	8:45 AM	15 min	4,360.21	994.09	0.00	0.00
Oct 18	9:00 AM	15 min	3,592.52	845.47	0.00	0.00
Oct 18	9:15 AM	15 min	3,171.20	768.40	0.00	0.00
Oct 18	9:30 AM	15 min	2,976.01	737.89	0.00	0.00
Oct 18	9:45 AM	15 min	2,927.14	731.18	0.00	0.00
Oct 18	10:00 AM	15 min	2,922.33	731.94	0.00	0.00
Oct 18	10:15 AM	15 min	2,933.17	734.44	0.00	0.00
Oct 18	10:30 AM	15 min	2,942.37	735.08	0.00	0.00
Oct 18	10:45 AM	15 min	2,938.24	735.98	0.00	0.00
Oct 18	11:00 AM	15 min	2,949.63	740.98	0.00	0.00
Oct 18	11:15 AM	15 min	2,978.18	748.56	0.00	0.00
Oct 18	11:30 AM	15 min	3,010.27	756.68	0.00	0.00
Oct 18	11:45 AM	15 min	3,043.15	764.62	0.00	0.00
Oct 18	12:00 PM	15 min	3,073.84	772.91	0.00	0.00
Oct 18	12:15 PM	15 min	3,109.48	782.83	0.00	0.00
Oct 18	12:30 PM	15 min	3,153.14	795.22	0.00	0.00
Oct 18	12:45 PM	15 min	3,208.63	811.57	0.00	0.00
Oct 18	1:00 PM	15 min	3,283.92	829.02	0.00	0.00
Oct 18	1:15 PM	15 min	3,348.21	846.85	0.00	0.00
Oct 18	1:30 PM	15 min	3,426.58	867.93	0.00	0.00
Oct 18	1:45 PM	15 min	3,516.90	892.31	0.00	0.00
Oct 18	2:00 PM	15 min	3,621.55	921.30	0.00	0.00
Oct 18	2:15 PM	15 min	3,748.84	961.69	0.00	0.00
Oct 18	2:30 PM	15 min	3,944.66	1013.90	0.00	0.00
Oct 18	2:45 PM	15 min	4,166.58	1065.43	0.00	0.00
Oct 18	3:00 PM	15 min	4,356.85	1109.72	0.00	0.00
Oct 18	3:15 PM	15 min	4,520.93	1143.79	0.00	0.00
Oct 18	3:30 PM	15 min	4,629.40	1173.68	0.00	14.38
Oct 18	3:45 PM	15 min	4,760.03	1210.17	115.06	62.18
Oct 18	4:00 PM	15 min	4,921.33	1265.21	382.36	157.89
Oct 18	4:15 PM	15 min	5,200.36	1369.93	880.80	289.93
Oct 18	4:30 PM	15 min	5,759.06	1490.49	1,438.62	365.58
Oct 18	4:45 PM	15 min	6,164.83	1576.54	1,486.03	337.56
Oct 18	5:00 PM	15 min	6,447.47	1707.07	1,214.41	223.06
Oct 18	5:15 PM	13 min	7,209.08	1693.64	570.09	89.31
Oct 18	5:28 PM	0 min	8,187.62		241.78	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Oct 25	8:28 AM	2 min	4,511.78	177.86	0.00	0.00
Oct 25	8:30 AM	15 min	4,381.22	991.51	0.00	0.00
Oct 25	8:45 AM	15 min	3,550.85	837.66	0.00	0.00
Oct 25	9:00 AM	15 min	3,150.44	771.90	0.00	0.00
Oct 25	9:15 AM	15 min	3,024.77	748.38	0.00	0.00
Oct 25	9:30 AM	15 min	2,962.24	741.27	0.00	0.00
Oct 25	9:45 AM	15 min	2,967.95	744.27	0.00	0.00
Oct 25	10:00 AM	15 min	2,986.23	749.22	0.00	0.00
Oct 25	10:15 AM	15 min	3,007.50	752.83	0.00	0.00
Oct 25	10:30 AM	15 min	3,015.15	753.28	0.00	0.00
Oct 25	10:45 AM	15 min	3,011.08	756.70	0.00	0.00
Oct 25	11:00 AM	15 min	3,042.50	765.08	0.00	0.00
Oct 25	11:15 AM	15 min	3,078.15	774.28	0.00	0.00
Oct 25	11:30 AM	15 min	3,116.13	783.83	0.00	0.00
Oct 25	11:45 AM	15 min	3,154.51	793.15	0.00	0.00
Oct 25	12:00 PM	15 min	3,190.73	803.08	0.00	0.00
Oct 25	12:15 PM	15 min	3,233.88	815.12	0.00	0.00
Oct 25	12:30 PM	15 min	3,287.08	830.48	0.00	0.00
Oct 25	12:45 PM	15 min	3,356.78	849.33	0.00	0.00
Oct 25	1:00 PM	15 min	3,437.88	868.95	0.00	0.00
Oct 25	1:15 PM	15 min	3,513.71	889.93	0.00	0.00
Oct 25	1:30 PM	15 min	3,605.77	914.71	0.00	0.00
Oct 25	1:45 PM	15 min	3,711.93	945.06	0.00	0.00
Oct 25	2:00 PM	15 min	3,848.53	987.16	0.00	0.00
Oct 25	2:15 PM	15 min	4,048.78	1036.66	0.00	0.00
Oct 25	2:30 PM	15 min	4,244.49	1080.85	0.00	0.00
Oct 25	2:45 PM	15 min	4,402.29	1122.56	0.00	0.00
Oct 25	3:00 PM	15 min	4,578.15	1159.75	0.00	0.00
Oct 25	3:15 PM	15 min	4,699.85	1190.73	0.00	0.35
Oct 25	3:30 PM	15 min	4,825.97	1225.84	2.83	42.89
Oct 25	3:45 PM	15 min	4,980.78	1269.36	340.25	151.36
Oct 25	4:00 PM	15 min	5,174.10	1347.77	870.60	308.34
Oct 25	4:15 PM	15 min	5,608.05	1451.04	1,596.11	423.79
Oct 25	4:30 PM	15 min	6,000.26	1543.37	1,794.21	434.02
Oct 25	4:45 PM	15 min	6,346.67	1636.21	1,677.97	354.69
Oct 25	5:00 PM	15 min	6,743.04	1826.02	1,159.57	201.48
Oct 25	5:15 PM	4 min	7,865.11	561.18	452.26	26.55
Oct 25	5:19 PM	0 min	8,168.47		306.39	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 1	8:35 AM	10 min	3,347.19	544.46	0.00	0.00
Nov 1	8:45 AM	15 min	3,058.26	754.75	0.00	0.00
Nov 1	9:00 AM	15 min	2,979.74	746.16	0.00	0.00
Nov 1	9:15 AM	15 min	2,989.54	750.38	0.00	0.00
Nov 1	9:30 AM	15 min	3,013.51	757.21	0.00	0.00
Nov 1	9:45 AM	15 min	3,044.19	764.94	0.00	0.00
Nov 1	10:00 AM	15 min	3,075.32	772.06	0.00	0.00
Nov 1	10:15 AM	15 min	3,101.19	774.93	0.00	0.00
Nov 1	10:30 AM	15 min	3,098.24	776.34	0.00	0.00
Nov 1	10:45 AM	15 min	3,112.47	782.85	0.00	0.00
Nov 1	11:00 AM	15 min	3,150.35	792.81	0.00	0.00
Nov 1	11:15 AM	15 min	3,192.14	803.46	0.00	0.00
Nov 1	11:30 AM	15 min	3,235.54	814.34	0.00	0.00
Nov 1	11:45 AM	15 min	3,279.22	824.97	0.00	0.00
Nov 1	12:00 PM	15 min	3,320.55	836.12	0.00	0.00
Nov 1	12:15 PM	15 min	3,368.42	849.83	0.00	0.00
Nov 1	12:30 PM	15 min	3,430.19	868.28	0.00	0.00
Nov 1	12:45 PM	15 min	3,516.03	890.11	0.00	0.00
Nov 1	1:00 PM	15 min	3,604.83	912.20	0.00	0.00
Nov 1	1:15 PM	15 min	3,692.74	936.46	0.00	0.00
Nov 1	1:30 PM	15 min	3,798.94	968.25	0.00	0.00
Nov 1	1:45 PM	15 min	3,947.04	1010.90	0.00	0.00
Nov 1	2:00 PM	15 min	4,140.17	1053.73	0.00	0.00
Nov 1	2:15 PM	15 min	4,289.65	1090.01	0.00	0.00
Nov 1	2:30 PM	15 min	4,430.42	1127.87	0.00	0.00
Nov 1	2:45 PM	15 min	4,592.51	1170.01	0.00	0.00
Nov 1	3:00 PM	15 min	4,767.58	1205.48	0.00	0.00
Nov 1	3:15 PM	15 min	4,876.26	1237.58	0.00	23.97
Nov 1	3:30 PM	15 min	5,024.37	1279.08	191.78	111.50
Nov 1	3:45 PM	15 min	5,208.26	1337.30	700.20	271.84
Nov 1	4:00 PM	15 min	5,490.15	1419.05	1,474.53	428.58
Nov 1	4:15 PM	15 min	5,862.26	1502.67	1,954.10	477.53
Nov 1	4:30 PM	15 min	6,159.10	1577.13	1,866.17	424.37
Nov 1	4:45 PM	15 min	6,457.98	1726.90	1,528.78	304.97
Nov 1	5:00 PM	11 min	7,357.22	1477.16	911.00	115.37
Nov 1	5:11 PM	0 min	8,191.78		303.38	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 8	7:43 AM	2 min	2,789.15	111.34	0.00	0.00
Nov 8	7:45 AM	15 min	2,777.60	716.80	0.00	0.00
Nov 8	8:00 AM	15 min	2,956.76	753.22	0.00	0.00
Nov 8	8:15 AM	15 min	3,069.01	772.76	0.00	0.00
Nov 8	8:30 AM	15 min	3,113.10	782.64	0.00	0.00
Nov 8	8:45 AM	15 min	3,148.05	792.29	0.00	0.00
Nov 8	9:00 AM	15 min	3,190.26	799.65	0.00	0.00
Nov 8	9:15 AM	15 min	3,206.92	800.05	0.00	0.00
Nov 8	9:30 AM	15 min	3,193.47	802.78	0.00	0.00
Nov 8	9:45 AM	15 min	3,228.77	812.50	0.00	0.00
Nov 8	10:00 AM	15 min	3,271.25	823.56	0.00	0.00
Nov 8	10:15 AM	15 min	3,317.22	835.23	0.00	0.00
Nov 8	10:30 AM	15 min	3,364.65	846.94	0.00	0.00
Nov 8	10:45 AM	15 min	3,410.90	858.34	0.00	0.00
Nov 8	11:00 AM	15 min	3,455.85	870.61	0.00	0.00
Nov 8	11:15 AM	15 min	3,509.03	886.31	0.00	0.00
Nov 8	11:30 AM	15 min	3,581.48	907.99	0.00	0.00
Nov 8	11:45 AM	15 min	3,682.42	932.88	0.00	0.00
Nov 8	12:00 PM	15 min	3,780.59	957.68	0.00	0.00
Nov 8	12:15 PM	15 min	3,880.86	989.30	0.00	0.00
Nov 8	12:30 PM	15 min	4,033.58	1028.97	0.00	0.00
Nov 8	12:45 PM	15 min	4,198.19	1064.87	0.00	0.00
Nov 8	1:00 PM	15 min	4,320.78	1096.54	0.00	0.00
Nov 8	1:15 PM	15 min	4,451.50	1131.59	0.00	0.00
Nov 8	1:30 PM	15 min	4,601.24	1172.38	0.00	0.00
Nov 8	1:45 PM	15 min	4,777.76	1213.34	0.00	0.00
Nov 8	2:00 PM	15 min	4,928.96	1248.25	0.00	0.00
Nov 8	2:15 PM	15 min	5,057.03	1285.78	0.00	54.18
Nov 8	2:30 PM	15 min	5,229.21	1338.73	433.42	201.70
Nov 8	2:45 PM	15 min	5,480.60	1411.74	1,180.17	382.10
Nov 8	3:00 PM	15 min	5,813.31	1491.04	1,876.63	494.60
Nov 8	3:15 PM	15 min	6,114.99	1550.96	2,080.19	484.19
Nov 8	3:30 PM	15 min	6,292.69	1624.83	1,793.34	397.04
Nov 8	3:45 PM	15 min	6,705.95	1831.62	1,383.00	224.91
Nov 8	4:00 PM	4 min	7,946.99	565.33	416.25	21.41
Nov 8	4:04 PM	0 min	8,205.38		195.38	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 15	7:50 AM	10 min	2,809.76	495.79	0.00	0.00
Nov 15	8:00 AM	15 min	3,023.06	779.02	0.00	0.00
Nov 15	8:15 AM	15 min	3,209.10	807.02	0.00	0.00
Nov 15	8:30 AM	15 min	3,247.08	815.47	0.00	0.00
Nov 15	8:45 AM	15 min	3,276.68	824.41	0.00	0.00
Nov 15	9:00 AM	15 min	3,318.56	830.22	0.00	0.00
Nov 15	9:15 AM	15 min	3,323.20	829.47	0.00	0.00
Nov 15	9:30 AM	15 min	3,312.56	833.40	0.00	0.00
Nov 15	9:45 AM	15 min	3,354.67	844.32	0.00	0.00
Nov 15	10:00 AM	15 min	3,399.88	855.67	0.00	0.00
Nov 15	10:15 AM	15 min	3,445.46	867.28	0.00	0.00
Nov 15	10:30 AM	15 min	3,492.82	879.51	0.00	0.00
Nov 15	10:45 AM	15 min	3,543.30	892.14	0.00	0.00
Nov 15	11:00 AM	15 min	3,593.82	905.67	0.00	0.00
Nov 15	11:15 AM	15 min	3,651.56	923.24	0.00	0.00
Nov 15	11:30 AM	15 min	3,734.35	947.81	0.00	0.00
Nov 15	11:45 AM	15 min	3,848.15	975.85	0.00	0.00
Nov 15	12:00 PM	15 min	3,958.67	1007.85	0.00	0.00
Nov 15	12:15 PM	15 min	4,104.13	1042.26	0.00	0.00
Nov 15	12:30 PM	15 min	4,233.93	1072.71	0.00	0.00
Nov 15	12:45 PM	15 min	4,347.78	1101.90	0.00	0.00
Nov 15	1:00 PM	15 min	4,467.42	1133.79	0.00	0.00
Nov 15	1:15 PM	15 min	4,602.88	1170.88	0.00	0.00
Nov 15	1:30 PM	15 min	4,764.19	1214.56	0.00	0.00
Nov 15	1:45 PM	15 min	4,952.28	1256.69	0.00	0.00
Nov 15	2:00 PM	15 min	5,101.22	1295.48	0.00	9.43
Nov 15	2:15 PM	15 min	5,262.63	1343.75	75.43	94.87
Nov 15	2:30 PM	15 min	5,487.35	1408.22	683.53	292.47
Nov 15	2:45 PM	15 min	5,778.44	1482.16	1,656.24	471.24
Nov 15	3:00 PM	15 min	6,078.86	1556.19	2,113.71	524.81
Nov 15	3:15 PM	15 min	6,370.67	1603.65	2,084.79	481.47
Nov 15	3:30 PM	15 min	6,458.52	1693.63	1,767.01	353.34
Nov 15	3:45 PM	13 min	7,090.49	1676.70	1,059.69	127.11
Nov 15	3:58 PM	0 min	8,152.21		95.81	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 22	7:58 AM	2 min	3,183.17	127.56	0.00	0.00
Nov 22	8:00 AM	15 min	3,194.81	819.51	0.00	0.00
Nov 22	8:15 AM	15 min	3,361.27	846.35	0.00	0.00
Nov 22	8:30 AM	15 min	3,409.54	853.84	0.00	0.00
Nov 22	8:45 AM	15 min	3,421.15	859.53	0.00	0.00
Nov 22	9:00 AM	15 min	3,455.07	863.00	0.00	0.00
Nov 22	9:15 AM	15 min	3,448.91	861.26	0.00	0.00
Nov 22	9:30 AM	15 min	3,441.16	865.44	0.00	0.00
Nov 22	9:45 AM	15 min	3,482.37	875.60	0.00	0.00
Nov 22	10:00 AM	15 min	3,522.44	886.14	0.00	0.00
Nov 22	10:15 AM	15 min	3,566.72	897.86	0.00	0.00
Nov 22	10:30 AM	15 min	3,616.15	910.81	0.00	0.00
Nov 22	10:45 AM	15 min	3,670.35	924.68	0.00	0.00
Nov 22	11:00 AM	15 min	3,727.08	939.41	0.00	0.00
Nov 22	11:15 AM	15 min	3,788.22	958.47	0.00	0.00
Nov 22	11:30 AM	15 min	3,879.51	985.32	0.00	0.00
Nov 22	11:45 AM	15 min	4,003.08	1019.01	0.00	0.00
Nov 22	12:00 PM	15 min	4,148.97	1051.43	0.00	0.00
Nov 22	12:15 PM	15 min	4,262.45	1078.85	0.00	0.00
Nov 22	12:30 PM	15 min	4,368.38	1106.27	0.00	0.00
Nov 22	12:45 PM	15 min	4,481.81	1135.94	0.00	0.00
Nov 22	1:00 PM	15 min	4,605.74	1168.74	0.00	0.00
Nov 22	1:15 PM	15 min	4,744.17	1208.94	0.00	0.00
Nov 22	1:30 PM	15 min	4,927.34	1257.36	0.00	0.00
Nov 22	1:45 PM	15 min	5,131.54	1302.72	0.00	0.00
Nov 22	2:00 PM	15 min	5,290.23	1345.57	0.00	28.21
Nov 22	2:15 PM	15 min	5,474.35	1400.42	225.70	154.61
Nov 22	2:30 PM	15 min	5,728.99	1467.38	1,011.17	357.14
Nov 22	2:45 PM	15 min	6,010.09	1535.50	1,845.92	504.11
Nov 22	3:00 PM	15 min	6,273.94	1595.83	2,186.97	523.68
Nov 22	3:15 PM	15 min	6,492.69	1635.16	2,002.45	469.96
Nov 22	3:30 PM	15 min	6,588.60	1749.78	1,757.22	325.43
Nov 22	3:45 PM	9 min	7,409.64	1163.59	846.21	73.74
Nov 22	3:54 PM	0 min	8,104.90		137.00	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 29	8:05 AM	10 min	3,507.10	596.40	0.00	0.00
Nov 29	8:15 AM	15 min	3,509.38	887.54	0.00	0.00
Nov 29	8:30 AM	15 min	3,590.92	895.17	0.00	0.00
Nov 29	8:45 AM	15 min	3,570.47	895.40	0.00	0.00
Nov 29	9:00 AM	15 min	3,592.72	896.06	0.00	0.00
Nov 29	9:15 AM	15 min	3,575.74	892.53	0.00	0.00
Nov 29	9:30 AM	15 min	3,564.51	895.05	0.00	0.00
Nov 29	9:45 AM	15 min	3,595.89	903.44	0.00	0.00
Nov 29	10:00 AM	15 min	3,631.63	913.32	0.00	0.00
Nov 29	10:15 AM	15 min	3,674.97	925.06	0.00	0.00
Nov 29	10:30 AM	15 min	3,725.53	938.64	0.00	0.00
Nov 29	10:45 AM	15 min	3,783.62	953.64	0.00	0.00
Nov 29	11:00 AM	15 min	3,845.49	969.36	0.00	0.00
Nov 29	11:15 AM	15 min	3,909.38	989.46	0.00	0.00
Nov 29	11:30 AM	15 min	4,006.28	1017.82	0.00	0.00
Nov 29	11:45 AM	15 min	4,136.24	1053.15	0.00	0.00
Nov 29	12:00 PM	15 min	4,288.93	1084.65	0.00	0.00
Nov 29	12:15 PM	15 min	4,388.24	1110.00	0.00	0.00
Nov 29	12:30 PM	15 min	4,491.74	1137.47	0.00	0.00
Nov 29	12:45 PM	15 min	4,608.01	1167.23	0.00	0.00
Nov 29	1:00 PM	15 min	4,729.85	1200.84	0.00	0.00
Nov 29	1:15 PM	15 min	4,876.90	1243.73	0.00	0.00
Nov 29	1:30 PM	15 min	5,072.94	1294.16	0.00	0.00
Nov 29	1:45 PM	15 min	5,280.33	1341.07	0.00	0.00
Nov 29	2:00 PM	15 min	5,448.26	1387.84	0.00	43.45
Nov 29	2:15 PM	15 min	5,654.47	1445.55	347.62	196.39
Nov 29	2:30 PM	15 min	5,909.97	1510.45	1,223.54	395.57
Nov 29	2:45 PM	15 min	6,173.65	1568.10	1,941.01	508.12
Nov 29	3:00 PM	15 min	6,371.19	1616.47	2,123.96	507.31
Nov 29	3:15 PM	15 min	6,560.61	1659.75	1,934.53	457.86
Nov 29	3:30 PM	15 min	6,717.39	1792.26	1,728.38	304.40
Nov 29	3:45 PM	6 min	7,620.70	784.58	706.79	45.42
Nov 29	3:51 PM	0 min	8,070.90		201.66	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Dec 6	8:11 AM	5 min	3,780.27	296.87	0.00	0.00
Dec 6	8:15 AM	15 min	3,641.59	924.01	0.00	0.00
Dec 6	8:30 AM	15 min	3,750.49	933.08	0.00	0.00
Dec 6	8:45 AM	15 min	3,714.16	928.87	0.00	0.00
Dec 6	9:00 AM	15 min	3,716.78	926.10	0.00	0.00
Dec 6	9:15 AM	15 min	3,692.03	919.73	0.00	0.00
Dec 6	9:30 AM	15 min	3,665.80	919.20	0.00	0.00
Dec 6	9:45 AM	15 min	3,687.83	925.88	0.00	0.00
Dec 6	10:00 AM	15 min	3,719.24	935.02	0.00	0.00
Dec 6	10:15 AM	15 min	3,760.94	946.64	0.00	0.00
Dec 6	10:30 AM	15 min	3,812.15	960.55	0.00	0.00
Dec 6	10:45 AM	15 min	3,872.22	976.29	0.00	0.00
Dec 6	11:00 AM	15 min	3,938.09	992.82	0.00	0.00
Dec 6	11:15 AM	15 min	4,004.45	1011.99	0.00	0.00
Dec 6	11:30 AM	15 min	4,091.50	1040.02	0.00	0.00
Dec 6	11:45 AM	15 min	4,228.65	1077.37	0.00	0.00
Dec 6	12:00 PM	15 min	4,390.35	1109.81	0.00	0.00
Dec 6	12:15 PM	15 min	4,488.13	1134.76	0.00	0.00
Dec 6	12:30 PM	15 min	4,589.96	1162.13	0.00	0.00
Dec 6	12:45 PM	15 min	4,707.10	1191.39	0.00	0.00
Dec 6	1:00 PM	15 min	4,823.98	1225.13	0.00	0.00
Dec 6	1:15 PM	15 min	4,977.05	1268.57	0.00	0.00
Dec 6	1:30 PM	15 min	5,171.49	1319.26	0.00	0.00
Dec 6	1:45 PM	15 min	5,382.62	1367.73	0.00	0.00
Dec 6	2:00 PM	15 min	5,559.24	1417.81	0.00	49.65
Dec 6	2:15 PM	15 min	5,783.24	1475.99	397.17	207.49
Dec 6	2:30 PM	15 min	6,024.65	1534.85	1,262.76	401.64
Dec 6	2:45 PM	15 min	6,254.13	1585.83	1,950.39	501.63
Dec 6	3:00 PM	15 min	6,432.51	1629.27	2,062.63	494.51
Dec 6	3:15 PM	15 min	6,601.67	1677.80	1,893.48	445.98
Dec 6	3:30 PM	15 min	6,820.77	1816.59	1,674.38	293.70
Dec 6	3:45 PM	6 min	7,711.98	793.58	675.25	43.42
Dec 6	3:51 PM	0 min	8,159.61		193.20	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Dec 13	8:17 AM	13 min	3,959.78	860.01	0.00	0.00
Dec 13	8:30 AM	15 min	3,858.50	961.52	0.00	0.00
Dec 13	8:45 AM	15 min	3,833.69	955.43	0.00	0.00
Dec 13	9:00 AM	15 min	3,809.78	949.13	0.00	0.00
Dec 13	9:15 AM	15 min	3,783.28	939.81	0.00	0.00
Dec 13	9:30 AM	15 min	3,735.22	935.65	0.00	0.00
Dec 13	9:45 AM	15 min	3,749.95	940.82	0.00	0.00
Dec 13	10:00 AM	15 min	3,776.60	949.12	0.00	0.00
Dec 13	10:15 AM	15 min	3,816.34	960.34	0.00	0.00
Dec 13	10:30 AM	15 min	3,866.38	974.19	0.00	0.00
Dec 13	10:45 AM	15 min	3,927.18	990.28	0.00	0.00
Dec 13	11:00 AM	15 min	3,995.03	1007.19	0.00	0.00
Dec 13	11:15 AM	15 min	4,062.49	1024.57	0.00	0.00
Dec 13	11:30 AM	15 min	4,134.08	1051.27	0.00	0.00
Dec 13	11:45 AM	15 min	4,276.10	1090.11	0.00	0.00
Dec 13	12:00 PM	15 min	4,444.74	1123.90	0.00	0.00
Dec 13	12:15 PM	15 min	4,546.42	1149.12	0.00	0.00
Dec 13	12:30 PM	15 min	4,646.53	1176.15	0.00	0.00
Dec 13	12:45 PM	15 min	4,762.69	1204.97	0.00	0.00
Dec 13	1:00 PM	15 min	4,877.10	1238.20	0.00	0.00
Dec 13	1:15 PM	15 min	5,028.51	1280.49	0.00	0.00
Dec 13	1:30 PM	15 min	5,215.45	1330.76	0.00	0.00
Dec 13	1:45 PM	15 min	5,430.63	1380.54	0.00	0.00
Dec 13	2:00 PM	15 min	5,613.70	1431.53	0.00	43.48
Dec 13	2:15 PM	15 min	5,838.54	1488.72	347.85	193.61
Dec 13	2:30 PM	15 min	6,071.21	1544.18	1,200.99	387.67
Dec 13	2:45 PM	15 min	6,282.27	1592.49	1,900.38	492.23
Dec 13	3:00 PM	15 min	6,457.68	1634.22	2,037.47	489.56
Dec 13	3:15 PM	15 min	6,616.11	1674.02	1,879.03	449.77
Dec 13	3:30 PM	15 min	6,776.03	1804.07	1,719.12	312.46
Dec 13	3:45 PM	6 min	7,656.56	788.74	780.59	52.44
Dec 13	3:51 PM	0 min	8,118.18		268.16	

SOMA WEST DOG PARK

F1

Quantitative Shading Calculations for SOMA West Dog Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Dec 21	8:22 AM	8 min	4,042.02	555.35	0.00	0.00
Dec 21	8:30 AM	15 min	3,891.61	975.29	0.00	0.00
Dec 21	8:45 AM	15 min	3,910.73	970.47	0.00	0.00
Dec 21	9:00 AM	15 min	3,853.06	960.92	0.00	0.00
Dec 21	9:15 AM	15 min	3,834.26	950.40	0.00	0.00
Dec 21	9:30 AM	15 min	3,768.94	943.09	0.00	0.00
Dec 21	9:45 AM	15 min	3,775.81	946.68	0.00	0.00
Dec 21	10:00 AM	15 min	3,797.63	953.96	0.00	0.00
Dec 21	10:15 AM	15 min	3,834.06	964.46	0.00	0.00
Dec 21	10:30 AM	15 min	3,881.60	977.80	0.00	0.00
Dec 21	10:45 AM	15 min	3,940.80	993.63	0.00	0.00
Dec 21	11:00 AM	15 min	4,008.20	1010.58	0.00	0.00
Dec 21	11:15 AM	15 min	4,076.47	1026.59	0.00	0.00
Dec 21	11:30 AM	15 min	4,136.29	1050.70	0.00	0.00
Dec 21	11:45 AM	15 min	4,269.28	1089.35	0.00	0.00
Dec 21	12:00 PM	15 min	4,445.49	1125.18	0.00	0.00
Dec 21	12:15 PM	15 min	4,555.92	1151.23	0.00	0.00
Dec 21	12:30 PM	15 min	4,653.94	1177.49	0.00	0.00
Dec 21	12:45 PM	15 min	4,765.97	1205.93	0.00	0.00
Dec 21	1:00 PM	15 min	4,881.51	1238.11	0.00	0.00
Dec 21	1:15 PM	15 min	5,023.41	1277.65	0.00	0.00
Dec 21	1:30 PM	15 min	5,197.82	1326.37	0.00	0.00
Dec 21	1:45 PM	15 min	5,413.13	1377.04	0.00	0.00
Dec 21	2:00 PM	15 min	5,603.17	1427.87	0.00	21.51
Dec 21	2:15 PM	15 min	5,819.83	1484.15	172.08	151.78
Dec 21	2:30 PM	15 min	6,053.40	1539.60	1,042.19	353.23
Dec 21	2:45 PM	15 min	6,263.42	1587.83	1,783.69	479.53
Dec 21	3:00 PM	15 min	6,439.19	1629.63	2,052.55	493.73
Dec 21	3:15 PM	15 min	6,597.87	1665.58	1,897.27	458.21
Dec 21	3:30 PM	15 min	6,726.77	1782.35	1,768.38	339.61
Dec 21	3:45 PM	10 min	7,532.05	1339.65	948.48	97.69
Dec 21	3:55 PM	0 min	8,228.58		200.82	

HALF/FULL YEAR AGGRAGATED SUMMARY

Half-Year Totals For Project (sfh)

Annual Totals For Project (sfh)

Shading as a % of Total Annual Available Sunlight (TAAS)

Current Conditions

8,122,323

16,115,115

50.93%

New/Added

170,738

337,951

1.07%

An aerial, isometric view of a city block. Buildings are represented by white wireframe outlines. Green shadows are cast from the buildings, indicating the direction and intensity of sunlight. The shadows are longer and more pronounced on buildings that are further from the viewer or have more complex rooflines. The overall scene is a technical representation of urban shading.

EXHIBIT F2: QUANTITATIVE SHADING DATA

Quantitative Annual Shading Data for SOMA West Skate Park

Shadow data for existing conditions and new shading from project,

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jun 21	6:48 AM	12 min	18,381.94	3639.57	0.00	0.00
Jun 21	7:00 AM	15 min	18,013.81	4429.14	0.00	0.00
Jun 21	7:15 AM	15 min	17,419.35	4283.93	0.00	0.00
Jun 21	7:30 AM	15 min	16,852.13	4116.43	0.00	0.00
Jun 21	7:45 AM	15 min	16,079.31	3918.22	0.00	0.00
Jun 21	8:00 AM	15 min	15,266.49	3700.26	0.00	0.00
Jun 21	8:15 AM	15 min	14,335.58	3465.17	0.00	0.00
Jun 21	8:30 AM	15 min	13,385.75	3285.63	0.00	0.00
Jun 21	8:45 AM	15 min	12,899.28	3195.89	0.00	0.00
Jun 21	9:00 AM	15 min	12,667.83	3159.61	0.00	0.00
Jun 21	9:15 AM	15 min	12,609.01	3172.48	0.00	0.00
Jun 21	9:30 AM	15 min	12,770.80	3217.94	0.00	0.00
Jun 21	9:45 AM	15 min	12,972.71	3264.56	0.00	0.00
Jun 21	10:00 AM	15 min	13,143.78	3305.16	0.00	0.00
Jun 21	10:15 AM	15 min	13,297.47	3342.14	0.00	0.00
Jun 21	10:30 AM	15 min	13,439.67	3376.30	0.00	0.00
Jun 21	10:45 AM	15 min	13,570.74	3407.35	0.00	0.00
Jun 21	11:00 AM	15 min	13,688.07	3436.67	0.00	0.00
Jun 21	11:15 AM	15 min	13,805.29	3465.06	0.00	0.00
Jun 21	11:30 AM	15 min	13,915.15	3490.56	0.00	0.00
Jun 21	11:45 AM	15 min	14,009.34	3512.27	0.00	0.00
Jun 21	12:00 PM	15 min	14,088.81	3530.36	0.00	0.00
Jun 21	12:15 PM	15 min	14,154.03	3545.34	0.00	0.00
Jun 21	12:30 PM	15 min	14,208.70	3558.22	0.00	0.00
Jun 21	12:45 PM	15 min	14,257.08	3569.38	0.00	0.00
Jun 21	1:00 PM	15 min	14,297.92	3579.19	0.00	0.00
Jun 21	1:15 PM	15 min	14,335.62	3588.38	0.00	0.00
Jun 21	1:30 PM	15 min	14,371.44	3597.71	0.00	0.00
Jun 21	1:45 PM	15 min	14,410.22	3606.97	0.00	0.00
Jun 21	2:00 PM	15 min	14,445.57	3614.72	0.00	0.00
Jun 21	2:15 PM	15 min	14,472.23	3620.05	0.00	0.00
Jun 21	2:30 PM	15 min	14,488.17	3622.79	0.00	0.00
Jun 21	2:45 PM	15 min	14,494.17	3623.22	0.00	0.00
Jun 21	3:00 PM	15 min	14,491.63	3621.23	0.00	0.00
Jun 21	3:15 PM	15 min	14,478.24	3616.66	0.00	0.00
Jun 21	3:30 PM	15 min	14,455.04	3609.74	0.00	0.00
Jun 21	3:45 PM	15 min	14,422.90	3600.47	0.00	0.00
Jun 21	4:00 PM	15 min	14,380.83	3588.93	0.00	0.00
Jun 21	4:15 PM	15 min	14,330.60	3575.00	0.00	0.00
Jun 21	4:30 PM	15 min	14,269.42	3558.21	0.00	0.00
Jun 21	4:45 PM	15 min	14,196.29	3537.64	0.00	0.00
Jun 21	5:00 PM	15 min	14,104.87	3512.18	0.00	0.00
Jun 21	5:15 PM	15 min	13,992.55	3481.52	0.00	0.00
Jun 21	5:30 PM	15 min	13,859.65	3447.49	0.00	0.00
Jun 21	5:45 PM	15 min	13,720.27	3412.71	0.00	0.00
Jun 21	6:00 PM	15 min	13,581.39	3396.20	0.00	0.00
Jun 21	6:15 PM	15 min	13,588.24	3487.37	0.00	0.00
Jun 21	6:30 PM	15 min	14,310.74	3676.49	0.00	0.00
Jun 21	6:45 PM	15 min	15,101.15	3859.98	0.00	0.00
Jun 21	7:00 PM	15 min	15,778.72	4072.95	0.00	0.00
Jun 21	7:15 PM	15 min	16,804.90	4340.15	0.00	0.00
Jun 21	7:30 PM	5 min	17,916.31	1614.54	0.00	0.00
Jun 21	7:35 PM	0 min	17,962.33		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jun 28	6:50 AM	10 min	18,341.58	3091.61	0.00	0.00
Jun 28	7:00 AM	15 min	18,030.25	4433.25	0.00	0.00
Jun 28	7:15 AM	15 min	17,435.78	4286.93	0.00	0.00
Jun 28	7:30 AM	15 min	16,859.69	4123.14	0.00	0.00
Jun 28	7:45 AM	15 min	16,125.40	3929.36	0.00	0.00
Jun 28	8:00 AM	15 min	15,309.52	3712.33	0.00	0.00
Jun 28	8:15 AM	15 min	14,389.15	3477.50	0.00	0.00
Jun 28	8:30 AM	15 min	13,430.85	3293.67	0.00	0.00
Jun 28	8:45 AM	15 min	12,918.50	3199.03	0.00	0.00
Jun 28	9:00 AM	15 min	12,673.72	3159.96	0.00	0.00
Jun 28	9:15 AM	15 min	12,605.98	3171.06	0.00	0.00
Jun 28	9:30 AM	15 min	12,762.49	3216.38	0.00	0.00
Jun 28	9:45 AM	15 min	12,968.58	3263.86	0.00	0.00
Jun 28	10:00 AM	15 min	13,142.29	3305.00	0.00	0.00
Jun 28	10:15 AM	15 min	13,297.69	3342.40	0.00	0.00
Jun 28	10:30 AM	15 min	13,441.47	3376.97	0.00	0.00
Jun 28	10:45 AM	15 min	13,574.30	3408.45	0.00	0.00
Jun 28	11:00 AM	15 min	13,693.32	3438.11	0.00	0.00
Jun 28	11:15 AM	15 min	13,811.57	3466.82	0.00	0.00
Jun 28	11:30 AM	15 min	13,923.02	3492.70	0.00	0.00
Jun 28	11:45 AM	15 min	14,018.58	3514.70	0.00	0.00
Jun 28	12:00 PM	15 min	14,099.01	3533.04	0.00	0.00
Jun 28	12:15 PM	15 min	14,165.29	3548.29	0.00	0.00
Jun 28	12:30 PM	15 min	14,221.00	3561.35	0.00	0.00
Jun 28	12:45 PM	15 min	14,269.83	3572.67	0.00	0.00
Jun 28	1:00 PM	15 min	14,311.51	3582.64	0.00	0.00
Jun 28	1:15 PM	15 min	14,349.59	3591.80	0.00	0.00
Jun 28	1:30 PM	15 min	14,384.80	3600.96	0.00	0.00
Jun 28	1:45 PM	15 min	14,422.88	3610.27	0.00	0.00
Jun 28	2:00 PM	15 min	14,459.26	3618.28	0.00	0.00
Jun 28	2:15 PM	15 min	14,486.94	3623.88	0.00	0.00
Jun 28	2:30 PM	15 min	14,504.08	3626.92	0.00	0.00
Jun 28	2:45 PM	15 min	14,511.28	3627.68	0.00	0.00
Jun 28	3:00 PM	15 min	14,510.12	3626.06	0.00	0.00
Jun 28	3:15 PM	15 min	14,498.39	3621.82	0.00	0.00
Jun 28	3:30 PM	15 min	14,476.16	3615.13	0.00	0.00
Jun 28	3:45 PM	15 min	14,444.86	3606.08	0.00	0.00
Jun 28	4:00 PM	15 min	14,403.77	3594.78	0.00	0.00
Jun 28	4:15 PM	15 min	14,354.49	3581.14	0.00	0.00
Jun 28	4:30 PM	15 min	14,294.66	3564.72	0.00	0.00
Jun 28	4:45 PM	15 min	14,223.10	3544.76	0.00	0.00
Jun 28	5:00 PM	15 min	14,134.99	3519.95	0.00	0.00
Jun 28	5:15 PM	15 min	14,024.62	3489.84	0.00	0.00
Jun 28	5:30 PM	15 min	13,894.10	3455.92	0.00	0.00
Jun 28	5:45 PM	15 min	13,753.28	3420.89	0.00	0.00
Jun 28	6:00 PM	15 min	13,613.84	3394.51	0.00	0.00
Jun 28	6:15 PM	15 min	13,542.23	3470.28	0.00	0.00
Jun 28	6:30 PM	15 min	14,220.01	3653.08	0.00	0.00
Jun 28	6:45 PM	15 min	15,004.64	3837.37	0.00	0.00
Jun 28	7:00 PM	15 min	15,694.31	4048.46	0.00	0.00
Jun 28	7:15 PM	15 min	16,693.38	4323.44	0.00	0.00
Jun 28	7:30 PM	6 min	17,894.17	1793.37	0.00	0.00
Jun 28	7:36 PM	0 min	17,973.22		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jul 5	6:54 AM	6 min	18,175.56	1807.64	0.00	0.00
Jul 5	7:00 AM	15 min	17,977.33	4415.41	0.00	0.00
Jul 5	7:15 AM	15 min	17,345.91	4263.33	0.00	0.00
Jul 5	7:30 AM	15 min	16,760.70	4104.14	0.00	0.00
Jul 5	7:45 AM	15 min	16,072.41	3916.93	0.00	0.00
Jul 5	8:00 AM	15 min	15,263.05	3701.67	0.00	0.00
Jul 5	8:15 AM	15 min	14,350.35	3469.94	0.00	0.00
Jul 5	8:30 AM	15 min	13,409.20	3288.80	0.00	0.00
Jul 5	8:45 AM	15 min	12,901.22	3195.11	0.00	0.00
Jul 5	9:00 AM	15 min	12,659.69	3157.21	0.00	0.00
Jul 5	9:15 AM	15 min	12,597.95	3172.68	0.00	0.00
Jul 5	9:30 AM	15 min	12,783.52	3222.11	0.00	0.00
Jul 5	9:45 AM	15 min	12,993.33	3270.52	0.00	0.00
Jul 5	10:00 AM	15 min	13,170.80	3312.67	0.00	0.00
Jul 5	10:15 AM	15 min	13,330.57	3350.75	0.00	0.00
Jul 5	10:30 AM	15 min	13,475.44	3385.67	0.00	0.00
Jul 5	10:45 AM	15 min	13,609.94	3417.91	0.00	0.00
Jul 5	11:00 AM	15 min	13,733.33	3448.53	0.00	0.00
Jul 5	11:15 AM	15 min	13,854.92	3477.70	0.00	0.00
Jul 5	11:30 AM	15 min	13,966.72	3503.74	0.00	0.00
Jul 5	11:45 AM	15 min	14,063.19	3525.87	0.00	0.00
Jul 5	12:00 PM	15 min	14,143.77	3544.28	0.00	0.00
Jul 5	12:15 PM	15 min	14,210.49	3559.69	0.00	0.00
Jul 5	12:30 PM	15 min	14,267.04	3572.95	0.00	0.00
Jul 5	12:45 PM	15 min	14,316.55	3584.44	0.00	0.00
Jul 5	1:00 PM	15 min	14,358.99	3594.46	0.00	0.00
Jul 5	1:15 PM	15 min	14,396.67	3603.48	0.00	0.00
Jul 5	1:30 PM	15 min	14,431.20	3612.41	0.00	0.00
Jul 5	1:45 PM	15 min	14,468.09	3621.63	0.00	0.00
Jul 5	2:00 PM	15 min	14,504.97	3629.78	0.00	0.00
Jul 5	2:15 PM	15 min	14,533.28	3635.66	0.00	0.00
Jul 5	2:30 PM	15 min	14,551.97	3639.08	0.00	0.00
Jul 5	2:45 PM	15 min	14,560.66	3640.25	0.00	0.00
Jul 5	3:00 PM	15 min	14,561.38	3639.15	0.00	0.00
Jul 5	3:15 PM	15 min	14,551.82	3635.39	0.00	0.00
Jul 5	3:30 PM	15 min	14,531.33	3629.04	0.00	0.00
Jul 5	3:45 PM	15 min	14,501.02	3620.22	0.00	0.00
Jul 5	4:00 PM	15 min	14,460.78	3609.06	0.00	0.00
Jul 5	4:15 PM	15 min	14,411.67	3595.60	0.00	0.00
Jul 5	4:30 PM	15 min	14,353.12	3579.49	0.00	0.00
Jul 5	4:45 PM	15 min	14,282.76	3560.12	0.00	0.00
Jul 5	5:00 PM	15 min	14,198.19	3536.13	0.00	0.00
Jul 5	5:15 PM	15 min	14,090.81	3506.77	0.00	0.00
Jul 5	5:30 PM	15 min	13,963.39	3473.13	0.00	0.00
Jul 5	5:45 PM	15 min	13,821.61	3437.66	0.00	0.00
Jul 5	6:00 PM	15 min	13,679.63	3405.07	0.00	0.00
Jul 5	6:15 PM	15 min	13,560.94	3461.09	0.00	0.00
Jul 5	6:30 PM	15 min	14,127.75	3625.88	0.00	0.00
Jul 5	6:45 PM	15 min	14,879.26	3809.54	0.00	0.00
Jul 5	7:00 PM	15 min	15,597.06	4025.06	0.00	0.00
Jul 5	7:15 PM	15 min	16,603.44	4310.69	0.00	0.00
Jul 5	7:30 PM	5 min	17,882.04	1614.91	0.00	0.00
Jul 5	7:35 PM	0 min	18,004.74		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jul 12	6:58 AM	2 min	17,919.56	715.47	0.00	0.00
Jul 12	7:00 AM	15 min	17,854.13	4373.69	0.00	0.00
Jul 12	7:15 AM	15 min	17,135.38	4210.55	0.00	0.00
Jul 12	7:30 AM	15 min	16,548.99	4057.52	0.00	0.00
Jul 12	7:45 AM	15 min	15,911.16	3879.14	0.00	0.00
Jul 12	8:00 AM	15 min	15,121.99	3666.43	0.00	0.00
Jul 12	8:15 AM	15 min	14,209.47	3441.62	0.00	0.00
Jul 12	8:30 AM	15 min	13,323.49	3270.83	0.00	0.00
Jul 12	8:45 AM	15 min	12,843.17	3183.12	0.00	0.00
Jul 12	9:00 AM	15 min	12,621.76	3151.17	0.00	0.00
Jul 12	9:15 AM	15 min	12,587.60	3178.24	0.00	0.00
Jul 12	9:30 AM	15 min	12,838.35	3236.28	0.00	0.00
Jul 12	9:45 AM	15 min	13,051.92	3285.80	0.00	0.00
Jul 12	10:00 AM	15 min	13,234.45	3328.77	0.00	0.00
Jul 12	10:15 AM	15 min	13,395.74	3367.30	0.00	0.00
Jul 12	10:30 AM	15 min	13,542.64	3402.85	0.00	0.00
Jul 12	10:45 AM	15 min	13,680.19	3436.23	0.00	0.00
Jul 12	11:00 AM	15 min	13,809.65	3468.16	0.00	0.00
Jul 12	11:15 AM	15 min	13,935.67	3497.92	0.00	0.00
Jul 12	11:30 AM	15 min	14,047.66	3523.91	0.00	0.00
Jul 12	11:45 AM	15 min	14,143.60	3545.88	0.00	0.00
Jul 12	12:00 PM	15 min	14,223.42	3564.03	0.00	0.00
Jul 12	12:15 PM	15 min	14,288.78	3579.46	0.00	0.00
Jul 12	12:30 PM	15 min	14,346.93	3593.02	0.00	0.00
Jul 12	12:45 PM	15 min	14,397.20	3604.60	0.00	0.00
Jul 12	1:00 PM	15 min	14,439.63	3614.60	0.00	0.00
Jul 12	1:15 PM	15 min	14,477.15	3623.46	0.00	0.00
Jul 12	1:30 PM	15 min	14,510.50	3631.98	0.00	0.00
Jul 12	1:45 PM	15 min	14,545.33	3641.00	0.00	0.00
Jul 12	2:00 PM	15 min	14,582.69	3649.26	0.00	0.00
Jul 12	2:15 PM	15 min	14,611.40	3655.28	0.00	0.00
Jul 12	2:30 PM	15 min	14,630.81	3658.90	0.00	0.00
Jul 12	2:45 PM	15 min	14,640.38	3660.38	0.00	0.00
Jul 12	3:00 PM	15 min	14,642.69	3659.91	0.00	0.00
Jul 12	3:15 PM	15 min	14,636.63	3657.03	0.00	0.00
Jul 12	3:30 PM	15 min	14,619.59	3651.26	0.00	0.00
Jul 12	3:45 PM	15 min	14,590.47	3642.72	0.00	0.00
Jul 12	4:00 PM	15 min	14,551.30	3631.66	0.00	0.00
Jul 12	4:15 PM	15 min	14,501.94	3618.27	0.00	0.00
Jul 12	4:30 PM	15 min	14,444.21	3602.41	0.00	0.00
Jul 12	4:45 PM	15 min	14,375.08	3583.53	0.00	0.00
Jul 12	5:00 PM	15 min	14,293.14	3560.19	0.00	0.00
Jul 12	5:15 PM	15 min	14,188.38	3531.42	0.00	0.00
Jul 12	5:30 PM	15 min	14,063.01	3498.31	0.00	0.00
Jul 12	5:45 PM	15 min	13,923.50	3462.18	0.00	0.00
Jul 12	6:00 PM	15 min	13,773.97	3430.99	0.00	0.00
Jul 12	6:15 PM	15 min	13,673.92	3467.27	0.00	0.00
Jul 12	6:30 PM	15 min	14,064.28	3599.94	0.00	0.00
Jul 12	6:45 PM	15 min	14,735.22	3775.04	0.00	0.00
Jul 12	7:00 PM	15 min	15,465.14	3999.24	0.00	0.00
Jul 12	7:15 PM	15 min	16,528.75	4294.23	0.00	0.00
Jul 12	7:30 PM	2 min	17,825.09	714.84	0.00	0.00
Jul 12	7:32 PM	0 min	17,916.87		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jul 19	7:03 AM	12 min	17,439.28	3422.32	0.00	0.00
Jul 19	7:15 AM	15 min	16,783.88	4124.35	0.00	0.00
Jul 19	7:30 AM	15 min	16,210.92	3981.05	0.00	0.00
Jul 19	7:45 AM	15 min	15,637.44	3815.31	0.00	0.00
Jul 19	8:00 AM	15 min	14,885.05	3606.21	0.00	0.00
Jul 19	8:15 AM	15 min	13,964.61	3393.73	0.00	0.00
Jul 19	8:30 AM	15 min	13,185.20	3241.12	0.00	0.00
Jul 19	8:45 AM	15 min	12,743.76	3163.39	0.00	0.00
Jul 19	9:00 AM	15 min	12,563.32	3153.90	0.00	0.00
Jul 19	9:15 AM	15 min	12,667.87	3199.69	0.00	0.00
Jul 19	9:30 AM	15 min	12,929.64	3259.63	0.00	0.00
Jul 19	9:45 AM	15 min	13,147.42	3310.04	0.00	0.00
Jul 19	10:00 AM	15 min	13,332.91	3353.57	0.00	0.00
Jul 19	10:15 AM	15 min	13,495.67	3392.62	0.00	0.00
Jul 19	10:30 AM	15 min	13,645.28	3428.97	0.00	0.00
Jul 19	10:45 AM	15 min	13,786.51	3464.17	0.00	0.00
Jul 19	11:00 AM	15 min	13,926.86	3497.83	0.00	0.00
Jul 19	11:15 AM	15 min	14,055.77	3527.75	0.00	0.00
Jul 19	11:30 AM	15 min	14,166.26	3553.18	0.00	0.00
Jul 19	11:45 AM	15 min	14,259.16	3574.44	0.00	0.00
Jul 19	12:00 PM	15 min	14,336.37	3592.24	0.00	0.00
Jul 19	12:15 PM	15 min	14,401.53	3607.78	0.00	0.00
Jul 19	12:30 PM	15 min	14,460.69	3621.58	0.00	0.00
Jul 19	12:45 PM	15 min	14,511.91	3633.29	0.00	0.00
Jul 19	1:00 PM	15 min	14,554.39	3643.20	0.00	0.00
Jul 19	1:15 PM	15 min	14,591.21	3651.78	0.00	0.00
Jul 19	1:30 PM	15 min	14,623.01	3659.81	0.00	0.00
Jul 19	1:45 PM	15 min	14,655.47	3668.44	0.00	0.00
Jul 19	2:00 PM	15 min	14,692.09	3676.57	0.00	0.00
Jul 19	2:15 PM	15 min	14,720.49	3682.60	0.00	0.00
Jul 19	2:30 PM	15 min	14,740.33	3686.35	0.00	0.00
Jul 19	2:45 PM	15 min	14,750.50	3687.90	0.00	0.00
Jul 19	3:00 PM	15 min	14,752.69	3687.74	0.00	0.00
Jul 19	3:15 PM	15 min	14,749.19	3685.68	0.00	0.00
Jul 19	3:30 PM	15 min	14,736.23	3681.03	0.00	0.00
Jul 19	3:45 PM	15 min	14,711.97	3673.36	0.00	0.00
Jul 19	4:00 PM	15 min	14,674.90	3662.61	0.00	0.00
Jul 19	4:15 PM	15 min	14,626.01	3649.20	0.00	0.00
Jul 19	4:30 PM	15 min	14,567.58	3633.39	0.00	0.00
Jul 19	4:45 PM	15 min	14,499.50	3614.72	0.00	0.00
Jul 19	5:00 PM	15 min	14,418.28	3591.68	0.00	0.00
Jul 19	5:15 PM	15 min	14,315.13	3563.05	0.00	0.00
Jul 19	5:30 PM	15 min	14,189.28	3530.20	0.00	0.00
Jul 19	5:45 PM	15 min	14,052.29	3493.56	0.00	0.00
Jul 19	6:00 PM	15 min	13,896.18	3466.48	0.00	0.00
Jul 19	6:15 PM	15 min	13,835.66	3487.78	0.00	0.00
Jul 19	6:30 PM	15 min	14,066.60	3584.50	0.00	0.00
Jul 19	6:45 PM	15 min	14,609.44	3736.08	0.00	0.00
Jul 19	7:00 PM	15 min	15,279.22	3964.39	0.00	0.00
Jul 19	7:15 PM	14 min	16,435.88	4099.00	0.00	0.00
Jul 19	7:29 PM	0 min	17,722.46		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Jul 26	7:09 AM	6 min	16,537.81	1640.11	0.00	0.00
Jul 26	7:15 AM	15 min	16,264.47	4001.89	0.00	0.00
Jul 26	7:30 AM	15 min	15,750.65	3881.29	0.00	0.00
Jul 26	7:45 AM	15 min	15,299.69	3726.93	0.00	0.00
Jul 26	8:00 AM	15 min	14,515.71	3515.26	0.00	0.00
Jul 26	8:15 AM	15 min	13,606.40	3322.39	0.00	0.00
Jul 26	8:30 AM	15 min	12,972.70	3196.97	0.00	0.00
Jul 26	8:45 AM	15 min	12,603.02	3138.61	0.00	0.00
Jul 26	9:00 AM	15 min	12,505.87	3163.09	0.00	0.00
Jul 26	9:15 AM	15 min	12,798.83	3232.85	0.00	0.00
Jul 26	9:30 AM	15 min	13,063.93	3293.44	0.00	0.00
Jul 26	9:45 AM	15 min	13,283.58	3344.30	0.00	0.00
Jul 26	10:00 AM	15 min	13,470.85	3388.16	0.00	0.00
Jul 26	10:15 AM	15 min	13,634.47	3427.92	0.00	0.00
Jul 26	10:30 AM	15 min	13,788.88	3466.08	0.00	0.00
Jul 26	10:45 AM	15 min	13,939.76	3503.63	0.00	0.00
Jul 26	11:00 AM	15 min	14,089.26	3538.02	0.00	0.00
Jul 26	11:15 AM	15 min	14,214.89	3566.83	0.00	0.00
Jul 26	11:30 AM	15 min	14,319.74	3590.97	0.00	0.00
Jul 26	11:45 AM	15 min	14,408.02	3611.30	0.00	0.00
Jul 26	12:00 PM	15 min	14,482.39	3628.92	0.00	0.00
Jul 26	12:15 PM	15 min	14,548.99	3644.79	0.00	0.00
Jul 26	12:30 PM	15 min	14,609.29	3658.68	0.00	0.00
Jul 26	12:45 PM	15 min	14,660.18	3670.30	0.00	0.00
Jul 26	1:00 PM	15 min	14,702.20	3680.06	0.00	0.00
Jul 26	1:15 PM	15 min	14,738.30	3688.37	0.00	0.00
Jul 26	1:30 PM	15 min	14,768.67	3695.86	0.00	0.00
Jul 26	1:45 PM	15 min	14,798.19	3703.85	0.00	0.00
Jul 26	2:00 PM	15 min	14,832.63	3711.60	0.00	0.00
Jul 26	2:15 PM	15 min	14,860.16	3717.46	0.00	0.00
Jul 26	2:30 PM	15 min	14,879.49	3721.20	0.00	0.00
Jul 26	2:45 PM	15 min	14,890.08	3722.79	0.00	0.00
Jul 26	3:00 PM	15 min	14,892.25	3722.61	0.00	0.00
Jul 26	3:15 PM	15 min	14,888.65	3720.87	0.00	0.00
Jul 26	3:30 PM	15 min	14,878.32	3717.17	0.00	0.00
Jul 26	3:45 PM	15 min	14,859.07	3710.86	0.00	0.00
Jul 26	4:00 PM	15 min	14,827.83	3701.35	0.00	0.00
Jul 26	4:15 PM	15 min	14,782.97	3688.44	0.00	0.00
Jul 26	4:30 PM	15 min	14,724.55	3672.60	0.00	0.00
Jul 26	4:45 PM	15 min	14,656.22	3653.95	0.00	0.00
Jul 26	5:00 PM	15 min	14,575.39	3630.80	0.00	0.00
Jul 26	5:15 PM	15 min	14,470.97	3601.56	0.00	0.00
Jul 26	5:30 PM	15 min	14,341.52	3567.92	0.00	0.00
Jul 26	5:45 PM	15 min	14,201.85	3530.92	0.00	0.00
Jul 26	6:00 PM	15 min	14,045.50	3511.45	0.00	0.00
Jul 26	6:15 PM	15 min	14,046.08	3530.31	0.00	0.00
Jul 26	6:30 PM	15 min	14,196.43	3591.59	0.00	0.00
Jul 26	6:45 PM	15 min	14,536.32	3696.64	0.00	0.00
Jul 26	7:00 PM	15 min	15,036.80	3917.62	0.00	0.00
Jul 26	7:15 PM	8 min	16,304.14	2337.14	0.00	0.00
Jul 26	7:23 PM	0 min	17,083.57		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 2	7:14 AM	1 min	15,595.03	311.59	0.00	0.00
Aug 2	7:15 AM	15 min	15,563.60	3844.19	0.00	0.00
Aug 2	7:30 AM	15 min	15,189.95	3766.38	0.00	0.00
Aug 2	7:45 AM	15 min	14,941.12	3620.14	0.00	0.00
Aug 2	8:00 AM	15 min	14,020.00	3399.02	0.00	0.00
Aug 2	8:15 AM	15 min	13,172.18	3230.93	0.00	0.00
Aug 2	8:30 AM	15 min	12,675.27	3139.39	0.00	0.00
Aug 2	8:45 AM	15 min	12,439.88	3137.21	0.00	0.00
Aug 2	9:00 AM	15 min	12,657.83	3204.45	0.00	0.00
Aug 2	9:15 AM	15 min	12,977.79	3277.46	0.00	0.00
Aug 2	9:30 AM	15 min	13,241.90	3338.04	0.00	0.00
Aug 2	9:45 AM	15 min	13,462.39	3389.15	0.00	0.00
Aug 2	10:00 AM	15 min	13,650.80	3433.68	0.00	0.00
Aug 2	10:15 AM	15 min	13,818.63	3474.81	0.00	0.00
Aug 2	10:30 AM	15 min	13,979.87	3515.34	0.00	0.00
Aug 2	10:45 AM	15 min	14,142.83	3554.30	0.00	0.00
Aug 2	11:00 AM	15 min	14,291.56	3587.47	0.00	0.00
Aug 2	11:15 AM	15 min	14,408.24	3614.36	0.00	0.00
Aug 2	11:30 AM	15 min	14,506.63	3637.13	0.00	0.00
Aug 2	11:45 AM	15 min	14,590.38	3656.93	0.00	0.00
Aug 2	12:00 PM	15 min	14,665.05	3674.73	0.00	0.00
Aug 2	12:15 PM	15 min	14,732.78	3690.68	0.00	0.00
Aug 2	12:30 PM	15 min	14,792.67	3704.36	0.00	0.00
Aug 2	12:45 PM	15 min	14,842.22	3715.63	0.00	0.00
Aug 2	1:00 PM	15 min	14,882.78	3725.03	0.00	0.00
Aug 2	1:15 PM	15 min	14,917.42	3732.93	0.00	0.00
Aug 2	1:30 PM	15 min	14,945.99	3739.85	0.00	0.00
Aug 2	1:45 PM	15 min	14,972.78	3747.13	0.00	0.00
Aug 2	2:00 PM	15 min	15,004.23	3754.30	0.00	0.00
Aug 2	2:15 PM	15 min	15,030.18	3759.80	0.00	0.00
Aug 2	2:30 PM	15 min	15,048.19	3763.33	0.00	0.00
Aug 2	2:45 PM	15 min	15,058.47	3764.86	0.00	0.00
Aug 2	3:00 PM	15 min	15,060.43	3764.55	0.00	0.00
Aug 2	3:15 PM	15 min	15,055.94	3762.77	0.00	0.00
Aug 2	3:30 PM	15 min	15,046.19	3759.37	0.00	0.00
Aug 2	3:45 PM	15 min	15,028.80	3754.00	0.00	0.00
Aug 2	4:00 PM	15 min	15,003.23	3746.13	0.00	0.00
Aug 2	4:15 PM	15 min	14,965.79	3734.83	0.00	0.00
Aug 2	4:30 PM	15 min	14,912.88	3719.84	0.00	0.00
Aug 2	4:45 PM	15 min	14,845.86	3701.22	0.00	0.00
Aug 2	5:00 PM	15 min	14,763.94	3677.25	0.00	0.00
Aug 2	5:15 PM	15 min	14,654.06	3647.11	0.00	0.00
Aug 2	5:30 PM	15 min	14,522.83	3612.33	0.00	0.00
Aug 2	5:45 PM	15 min	14,375.80	3575.47	0.00	0.00
Aug 2	6:00 PM	15 min	14,227.93	3569.83	0.00	0.00
Aug 2	6:15 PM	15 min	14,330.70	3597.28	0.00	0.00
Aug 2	6:30 PM	15 min	14,447.51	3618.31	0.00	0.00
Aug 2	6:45 PM	15 min	14,498.98	3656.42	0.00	0.00
Aug 2	7:00 PM	15 min	14,752.38	3837.38	0.00	0.00
Aug 2	7:15 PM	2 min	15,946.65	641.20	0.00	0.00
Aug 2	7:17 PM	0 min	16,113.58		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 9	7:20 AM	11 min	14,638.92	2651.59	0.00	0.00
Aug 9	7:30 AM	15 min	14,823.15	3637.35	0.00	0.00
Aug 9	7:45 AM	15 min	14,275.67	3458.04	0.00	0.00
Aug 9	8:00 AM	15 min	13,388.65	3266.62	0.00	0.00
Aug 9	8:15 AM	15 min	12,744.32	3138.74	0.00	0.00
Aug 9	8:30 AM	15 min	12,365.60	3108.30	0.00	0.00
Aug 9	8:45 AM	15 min	12,500.81	3173.72	0.00	0.00
Aug 9	9:00 AM	15 min	12,888.94	3262.03	0.00	0.00
Aug 9	9:15 AM	15 min	13,207.29	3334.65	0.00	0.00
Aug 9	9:30 AM	15 min	13,469.94	3395.14	0.00	0.00
Aug 9	9:45 AM	15 min	13,691.18	3446.73	0.00	0.00
Aug 9	10:00 AM	15 min	13,882.64	3492.07	0.00	0.00
Aug 9	10:15 AM	15 min	14,053.90	3535.17	0.00	0.00
Aug 9	10:30 AM	15 min	14,227.45	3577.29	0.00	0.00
Aug 9	10:45 AM	15 min	14,390.85	3614.76	0.00	0.00
Aug 9	11:00 AM	15 min	14,527.25	3645.32	0.00	0.00
Aug 9	11:15 AM	15 min	14,635.33	3670.33	0.00	0.00
Aug 9	11:30 AM	15 min	14,727.33	3692.26	0.00	0.00
Aug 9	11:45 AM	15 min	14,810.75	3712.04	0.00	0.00
Aug 9	12:00 PM	15 min	14,885.54	3729.82	0.00	0.00
Aug 9	12:15 PM	15 min	14,953.02	3745.42	0.00	0.00
Aug 9	12:30 PM	15 min	15,010.32	3758.44	0.00	0.00
Aug 9	12:45 PM	15 min	15,057.22	3769.03	0.00	0.00
Aug 9	1:00 PM	15 min	15,094.99	3777.81	0.00	0.00
Aug 9	1:15 PM	15 min	15,127.47	3785.15	0.00	0.00
Aug 9	1:30 PM	15 min	15,153.72	3791.39	0.00	0.00
Aug 9	1:45 PM	15 min	15,177.42	3797.84	0.00	0.00
Aug 9	2:00 PM	15 min	15,205.28	3804.32	0.00	0.00
Aug 9	2:15 PM	15 min	15,229.25	3809.38	0.00	0.00
Aug 9	2:30 PM	15 min	15,245.78	3812.64	0.00	0.00
Aug 9	2:45 PM	15 min	15,255.33	3814.06	0.00	0.00
Aug 9	3:00 PM	15 min	15,257.15	3813.63	0.00	0.00
Aug 9	3:15 PM	15 min	15,251.88	3811.60	0.00	0.00
Aug 9	3:30 PM	15 min	15,240.89	3808.09	0.00	0.00
Aug 9	3:45 PM	15 min	15,223.79	3802.85	0.00	0.00
Aug 9	4:00 PM	15 min	15,199.04	3795.74	0.00	0.00
Aug 9	4:15 PM	15 min	15,166.90	3786.26	0.00	0.00
Aug 9	4:30 PM	15 min	15,123.19	3773.10	0.00	0.00
Aug 9	4:45 PM	15 min	15,061.58	3754.83	0.00	0.00
Aug 9	5:00 PM	15 min	14,977.03	3729.76	0.00	0.00
Aug 9	5:15 PM	15 min	14,861.05	3698.76	0.00	0.00
Aug 9	5:30 PM	15 min	14,729.01	3662.88	0.00	0.00
Aug 9	5:45 PM	15 min	14,574.01	3644.28	0.00	0.00
Aug 9	6:00 PM	15 min	14,580.24	3660.43	0.00	0.00
Aug 9	6:15 PM	15 min	14,703.17	3685.82	0.00	0.00
Aug 9	6:30 PM	15 min	14,783.35	3682.43	0.00	0.00
Aug 9	6:45 PM	15 min	14,676.09	3632.83	0.00	0.00
Aug 9	7:00 PM	9 min	14,386.56	2186.78	0.00	0.00
Aug 9	7:09 PM	0 min	14,770.49		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 16	7:26 AM	4 min	14,023.50	979.94	0.00	0.00
Aug 16	7:30 AM	15 min	13,974.76	3426.20	0.00	0.00
Aug 16	7:45 AM	15 min	13,434.86	3264.76	0.00	0.00
Aug 16	8:00 AM	15 min	12,683.24	3115.17	0.00	0.00
Aug 16	8:15 AM	15 min	12,238.13	3067.47	0.00	0.00
Aug 16	8:30 AM	15 min	12,301.62	3137.62	0.00	0.00
Aug 16	8:45 AM	15 min	12,799.38	3247.26	0.00	0.00
Aug 16	9:00 AM	15 min	13,178.74	3334.58	0.00	0.00
Aug 16	9:15 AM	15 min	13,497.88	3407.41	0.00	0.00
Aug 16	9:30 AM	15 min	13,761.37	3468.06	0.00	0.00
Aug 16	9:45 AM	15 min	13,983.08	3519.63	0.00	0.00
Aug 16	10:00 AM	15 min	14,173.92	3565.71	0.00	0.00
Aug 16	10:15 AM	15 min	14,351.77	3609.48	0.00	0.00
Aug 16	10:30 AM	15 min	14,524.07	3649.52	0.00	0.00
Aug 16	10:45 AM	15 min	14,672.08	3683.69	0.00	0.00
Aug 16	11:00 AM	15 min	14,797.46	3711.92	0.00	0.00
Aug 16	11:15 AM	15 min	14,897.94	3735.87	0.00	0.00
Aug 16	11:30 AM	15 min	14,989.06	3757.59	0.00	0.00
Aug 16	11:45 AM	15 min	15,071.67	3776.99	0.00	0.00
Aug 16	12:00 PM	15 min	15,144.28	3793.87	0.00	0.00
Aug 16	12:15 PM	15 min	15,206.64	3808.05	0.00	0.00
Aug 16	12:30 PM	15 min	15,257.77	3819.67	0.00	0.00
Aug 16	12:45 PM	15 min	15,299.56	3829.00	0.00	0.00
Aug 16	1:00 PM	15 min	15,332.41	3836.75	0.00	0.00
Aug 16	1:15 PM	15 min	15,361.56	3843.26	0.00	0.00
Aug 16	1:30 PM	15 min	15,384.56	3848.68	0.00	0.00
Aug 16	1:45 PM	15 min	15,404.87	3854.22	0.00	0.00
Aug 16	2:00 PM	15 min	15,428.88	3859.90	0.00	0.00
Aug 16	2:15 PM	15 min	15,450.33	3864.44	0.00	0.00
Aug 16	2:30 PM	15 min	15,465.19	3867.40	0.00	0.00
Aug 16	2:45 PM	15 min	15,473.99	3868.73	0.00	0.00
Aug 16	3:00 PM	15 min	15,475.83	3868.28	0.00	0.00
Aug 16	3:15 PM	15 min	15,470.42	3866.23	0.00	0.00
Aug 16	3:30 PM	15 min	15,459.40	3862.81	0.00	0.00
Aug 16	3:45 PM	15 min	15,443.06	3857.79	0.00	0.00
Aug 16	4:00 PM	15 min	15,419.26	3850.83	0.00	0.00
Aug 16	4:15 PM	15 min	15,387.35	3841.78	0.00	0.00
Aug 16	4:30 PM	15 min	15,346.91	3830.08	0.00	0.00
Aug 16	4:45 PM	15 min	15,293.69	3811.48	0.00	0.00
Aug 16	5:00 PM	15 min	15,198.13	3784.02	0.00	0.00
Aug 16	5:15 PM	15 min	15,074.05	3752.06	0.00	0.00
Aug 16	5:30 PM	15 min	14,942.46	3717.12	0.00	0.00
Aug 16	5:45 PM	15 min	14,794.52	3725.91	0.00	0.00
Aug 16	6:00 PM	15 min	15,012.75	3771.46	0.00	0.00
Aug 16	6:15 PM	15 min	15,158.95	3792.93	0.00	0.00
Aug 16	6:30 PM	15 min	15,184.49	3778.47	0.00	0.00
Aug 16	6:45 PM	15 min	15,043.29	3651.65	0.00	0.22
Aug 16	7:00 PM	1 min	14,169.91	282.69	1.75	0.07
Aug 16	7:01 PM	0 min	14,098.64		5.09	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 23	7:32 AM	13 min	12,861.93	632.60	0.00	0.00
Aug 23	7:45 AM	15 min	12,442.24	3061.45	0.00	0.00
Aug 23	8:00 AM	15 min	12,049.33	3005.93	0.00	0.00
Aug 23	8:15 AM	15 min	11,998.08	3086.70	0.00	0.00
Aug 23	8:30 AM	15 min	12,695.53	3233.18	0.00	0.00
Aug 23	8:45 AM	15 min	13,169.90	3340.63	0.00	0.00
Aug 23	9:00 AM	15 min	13,555.13	3428.27	0.00	0.00
Aug 23	9:15 AM	15 min	13,871.04	3499.96	0.00	0.00
Aug 23	9:30 AM	15 min	14,128.65	3558.56	0.00	0.00
Aug 23	9:45 AM	15 min	14,339.83	3608.78	0.00	0.00
Aug 23	10:00 AM	15 min	14,530.42	3654.20	0.00	0.00
Aug 23	10:15 AM	15 min	14,703.16	3695.07	0.00	0.00
Aug 23	10:30 AM	15 min	14,857.43	3731.12	0.00	0.00
Aug 23	10:45 AM	15 min	14,991.52	3762.17	0.00	0.00
Aug 23	11:00 AM	15 min	15,105.84	3788.71	0.00	0.00
Aug 23	11:15 AM	15 min	15,203.85	3811.88	0.00	0.00
Aug 23	11:30 AM	15 min	15,291.22	3832.17	0.00	0.00
Aug 23	11:45 AM	15 min	15,366.17	3849.59	0.00	0.00
Aug 23	12:00 PM	15 min	15,430.51	3864.28	0.00	0.00
Aug 23	12:15 PM	15 min	15,483.76	3876.42	0.00	0.00
Aug 23	12:30 PM	15 min	15,527.56	3886.30	0.00	0.00
Aug 23	12:45 PM	15 min	15,562.86	3894.12	0.00	0.00
Aug 23	1:00 PM	15 min	15,590.07	3900.66	0.00	0.00
Aug 23	1:15 PM	5 min	15,615.23	3904.69	0.00	0.00
Aug 23	1:20 PM	24 min	15,622.26	3909.13	0.00	0.00
Aug 23	1:45 PM	15 min	15,650.82	3915.17	0.00	0.00
Aug 23	2:00 PM	15 min	15,670.52	3919.97	0.00	0.00
Aug 23	2:15 PM	15 min	15,689.24	3923.92	0.00	0.00
Aug 23	2:30 PM	15 min	15,702.12	3926.45	0.00	0.00
Aug 23	2:45 PM	15 min	15,709.47	3927.59	0.00	0.00
Aug 23	3:00 PM	15 min	15,711.26	3927.17	0.00	0.00
Aug 23	3:15 PM	15 min	15,706.13	3925.08	0.00	0.00
Aug 23	3:30 PM	15 min	15,694.52	3921.51	0.00	0.00
Aug 23	3:45 PM	15 min	15,677.56	3916.50	0.00	0.00
Aug 23	4:00 PM	15 min	15,654.40	3909.72	0.00	0.00
Aug 23	4:15 PM	15 min	15,623.38	3900.82	0.00	0.00
Aug 23	4:30 PM	15 min	15,583.15	3888.59	0.00	0.00
Aug 23	4:45 PM	15 min	15,525.58	3867.74	0.00	0.00
Aug 23	5:00 PM	15 min	15,416.35	3837.69	0.00	0.00
Aug 23	5:15 PM	15 min	15,285.17	3802.43	0.00	0.00
Aug 23	5:30 PM	15 min	15,134.25	3795.45	0.00	0.00
Aug 23	5:45 PM	15 min	15,229.32	3839.44	0.00	0.00
Aug 23	6:00 PM	15 min	15,486.17	3881.61	0.00	0.00
Aug 23	6:15 PM	15 min	15,566.74	3883.70	0.00	0.00
Aug 23	6:30 PM	15 min	15,502.88	3824.15	0.00	2.72
Aug 23	6:45 PM	6 min	15,090.36	3711.69	21.78	18.80
Aug 23	6:51 PM	0 min	14,603.17		128.60	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Aug 30	7:38 AM	7 min	11,535.62	1389.01	0.00	0.00
Aug 30	7:45 AM	15 min	11,614.57	2895.98	0.00	0.00
Aug 30	8:00 AM	15 min	11,553.25	3011.62	0.00	0.00
Aug 30	8:15 AM	15 min	12,539.69	3216.02	0.00	0.00
Aug 30	8:30 AM	15 min	13,188.46	3355.71	0.00	0.00
Aug 30	8:45 AM	15 min	13,657.19	3461.93	0.00	0.00
Aug 30	9:00 AM	15 min	14,038.28	3545.98	0.00	0.00
Aug 30	9:15 AM	15 min	14,329.58	3611.54	0.00	0.00
Aug 30	9:30 AM	15 min	14,562.72	3666.27	0.00	0.00
Aug 30	9:45 AM	15 min	14,767.47	3714.21	0.00	0.00
Aug 30	10:00 AM	15 min	14,946.24	3755.16	0.00	0.00
Aug 30	10:15 AM	15 min	15,095.06	3790.30	0.00	0.00
Aug 30	10:30 AM	15 min	15,227.32	3821.72	0.00	0.00
Aug 30	10:45 AM	15 min	15,346.41	3850.36	0.00	0.00
Aug 30	11:00 AM	15 min	15,456.49	3875.49	0.00	0.00
Aug 30	11:15 AM	15 min	15,547.40	3896.21	0.00	0.00
Aug 30	11:30 AM	15 min	15,622.29	3913.39	0.00	0.00
Aug 30	11:45 AM	15 min	15,684.86	3927.82	0.00	0.00
Aug 30	12:00 PM	15 min	15,737.70	3939.81	0.00	0.00
Aug 30	12:15 PM	15 min	15,780.78	3949.54	0.00	0.00
Aug 30	12:30 PM	15 min	15,815.56	3957.40	0.00	0.00
Aug 30	12:45 PM	15 min	15,843.67	3963.59	0.00	0.00
Aug 30	1:00 PM	15 min	15,865.04	3968.68	0.00	0.00
Aug 30	1:15 PM	15 min	15,884.40	3972.85	0.00	0.00
Aug 30	1:30 PM	15 min	15,898.42	3976.19	0.00	0.00
Aug 30	1:45 PM	15 min	15,911.12	3979.70	0.00	0.00
Aug 30	2:00 PM	15 min	15,926.47	3983.55	0.00	0.00
Aug 30	2:15 PM	15 min	15,941.91	3986.79	0.00	0.00
Aug 30	2:30 PM	15 min	15,952.41	3988.79	0.00	0.00
Aug 30	2:45 PM	15 min	15,957.89	3989.56	0.00	0.00
Aug 30	3:00 PM	15 min	15,958.60	3988.94	0.00	0.00
Aug 30	3:15 PM	15 min	15,952.89	3986.63	0.00	0.00
Aug 30	3:30 PM	15 min	15,940.14	3982.72	0.00	0.00
Aug 30	3:45 PM	15 min	15,921.62	3977.38	0.00	0.00
Aug 30	4:00 PM	15 min	15,897.41	3970.30	0.00	0.00
Aug 30	4:15 PM	15 min	15,864.96	3960.98	0.00	0.00
Aug 30	4:30 PM	15 min	15,822.85	3945.06	0.00	0.00
Aug 30	4:45 PM	15 min	15,737.63	3918.53	0.00	0.00
Aug 30	5:00 PM	15 min	15,610.64	3882.41	0.00	0.00
Aug 30	5:15 PM	15 min	15,448.64	3848.03	0.00	0.00
Aug 30	5:30 PM	15 min	15,335.62	3866.33	0.00	0.00
Aug 30	5:45 PM	15 min	15,595.00	3927.09	0.00	0.00
Aug 30	6:00 PM	15 min	15,821.69	3953.29	0.00	0.00
Aug 30	6:15 PM	15 min	15,804.61	3924.98	0.00	0.00
Aug 30	6:30 PM	11 min	15,595.26	2903.53	0.00	67.83
Aug 30	6:41 PM	0 min	14,968.19		713.96	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Sep 6	7:44 AM	1 min	10,858.04	217.81	0.00	0.00
Sep 6	7:45 AM	15 min	10,922.95	2900.17	0.00	0.00
Sep 6	8:00 AM	15 min	12,278.38	3190.64	0.00	0.00
Sep 6	8:15 AM	15 min	13,246.78	3386.33	0.00	0.00
Sep 6	8:30 AM	15 min	13,843.89	3516.69	0.00	0.00
Sep 6	8:45 AM	15 min	14,289.67	3612.73	0.00	0.00
Sep 6	9:00 AM	15 min	14,612.16	3684.59	0.00	0.00
Sep 6	9:15 AM	15 min	14,864.54	3742.45	0.00	0.00
Sep 6	9:30 AM	15 min	15,075.09	3791.07	0.00	0.00
Sep 6	9:45 AM	15 min	15,253.44	3831.52	0.00	0.00
Sep 6	10:00 AM	15 min	15,398.74	3864.65	0.00	0.00
Sep 6	10:15 AM	15 min	15,518.45	3894.06	0.00	0.00
Sep 6	10:30 AM	15 min	15,634.01	3922.64	0.00	0.00
Sep 6	10:45 AM	15 min	15,747.14	3948.88	0.00	0.00
Sep 6	11:00 AM	15 min	15,843.89	3970.06	0.00	0.00
Sep 6	11:15 AM	15 min	15,916.57	3986.25	0.00	0.00
Sep 6	11:30 AM	15 min	15,973.42	3999.34	0.00	0.00
Sep 6	11:45 AM	15 min	16,021.31	4010.27	0.00	0.00
Sep 6	12:00 PM	15 min	16,060.84	4019.15	0.00	0.00
Sep 6	12:15 PM	15 min	16,092.39	4026.19	0.00	0.00
Sep 6	12:30 PM	15 min	16,117.16	4031.69	0.00	0.00
Sep 6	12:45 PM	15 min	16,136.36	4035.93	0.00	0.00
Sep 6	1:00 PM	15 min	16,151.05	4039.39	0.00	0.00
Sep 6	1:15 PM	15 min	16,164.07	4042.11	0.00	0.00
Sep 6	1:30 PM	15 min	16,172.81	4044.17	0.00	0.00
Sep 6	1:45 PM	15 min	16,180.57	4046.43	0.00	0.00
Sep 6	2:00 PM	15 min	16,190.84	4049.15	0.00	0.00
Sep 6	2:15 PM	15 min	16,202.38	4051.51	0.00	0.00
Sep 6	2:30 PM	15 min	16,209.68	4052.72	0.00	0.00
Sep 6	2:45 PM	15 min	16,212.06	4052.80	0.00	0.00
Sep 6	3:00 PM	15 min	16,210.36	4051.61	0.00	0.00
Sep 6	3:15 PM	15 min	16,202.49	4048.77	0.00	0.00
Sep 6	3:30 PM	15 min	16,187.67	4044.22	0.00	0.00
Sep 6	3:45 PM	15 min	16,166.08	4037.75	0.00	0.00
Sep 6	4:00 PM	15 min	16,135.88	4028.13	0.00	0.00
Sep 6	4:15 PM	15 min	16,089.12	4012.17	0.00	0.00
Sep 6	4:30 PM	15 min	16,008.22	3983.58	0.00	0.00
Sep 6	4:45 PM	15 min	15,860.40	3941.03	0.00	0.00
Sep 6	5:00 PM	15 min	15,667.88	3886.76	0.00	0.00
Sep 6	5:15 PM	15 min	15,426.24	3877.87	0.00	0.00
Sep 6	5:30 PM	15 min	15,596.70	3934.04	0.00	0.00
Sep 6	5:45 PM	15 min	15,875.60	3977.65	0.00	0.00
Sep 6	6:00 PM	15 min	15,945.60	3980.66	0.00	0.00
Sep 6	6:15 PM	15 min	15,899.68	3922.16	0.00	139.48
Sep 6	6:30 PM	1 min	15,477.56	308.81	1,115.81	23.70
Sep 6	6:31 PM	0 min	15,403.40		1,254.01	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Sep 13	7:50 AM	10 min	12,498.70	2199.53	0.00	0.00
Sep 13	8:00 AM	15 min	13,378.07	3445.21	0.00	0.00
Sep 13	8:15 AM	15 min	14,183.59	3606.38	0.00	0.00
Sep 13	8:30 AM	15 min	14,667.44	3711.15	0.00	0.00
Sep 13	8:45 AM	15 min	15,021.74	3786.66	0.00	0.00
Sep 13	9:00 AM	15 min	15,271.53	3843.14	0.00	0.00
Sep 13	9:15 AM	15 min	15,473.58	3889.52	0.00	0.00
Sep 13	9:30 AM	15 min	15,642.61	3927.42	0.00	0.00
Sep 13	9:45 AM	15 min	15,776.74	3957.88	0.00	0.00
Sep 13	10:00 AM	15 min	15,886.31	3984.22	0.00	0.00
Sep 13	10:15 AM	15 min	15,987.47	4009.50	0.00	0.00
Sep 13	10:30 AM	15 min	16,088.50	4033.53	0.00	0.00
Sep 13	10:45 AM	15 min	16,179.76	4053.83	0.00	0.00
Sep 13	11:00 AM	15 min	16,250.88	4068.86	0.00	0.00
Sep 13	11:15 AM	15 min	16,300.01	4079.75	0.00	0.00
Sep 13	11:30 AM	15 min	16,338.00	4088.43	0.00	0.00
Sep 13	11:45 AM	15 min	16,369.47	4095.46	0.00	0.00
Sep 13	12:00 PM	15 min	16,394.24	4100.88	0.00	0.00
Sep 13	12:15 PM	15 min	16,412.83	4105.01	0.00	0.00
Sep 13	12:30 PM	15 min	16,427.23	4107.88	0.00	0.00
Sep 13	12:45 PM	15 min	16,435.84	4109.87	0.00	0.00
Sep 13	1:00 PM	15 min	16,443.15	4111.51	0.00	0.00
Sep 13	1:15 PM	15 min	16,448.90	4112.53	0.00	0.00
Sep 13	1:30 PM	15 min	16,451.30	4113.08	0.00	0.00
Sep 13	1:45 PM	15 min	16,453.32	4113.86	0.00	0.00
Sep 13	2:00 PM	15 min	16,457.58	4115.13	0.00	0.00
Sep 13	2:15 PM	15 min	16,463.47	4116.08	0.00	0.00
Sep 13	2:30 PM	15 min	16,465.17	4115.89	0.00	0.00
Sep 13	2:45 PM	15 min	16,461.97	4114.58	0.00	0.00
Sep 13	3:00 PM	15 min	16,454.67	4111.69	0.00	0.00
Sep 13	3:15 PM	15 min	16,438.82	4105.78	0.00	0.00
Sep 13	3:30 PM	15 min	16,407.41	4095.36	0.00	0.00
Sep 13	3:45 PM	15 min	16,355.44	4079.00	0.00	0.00
Sep 13	4:00 PM	15 min	16,276.59	4055.30	0.00	0.00
Sep 13	4:15 PM	15 min	16,165.77	4019.97	0.00	0.00
Sep 13	4:30 PM	15 min	15,994.03	3970.41	0.00	0.00
Sep 13	4:45 PM	15 min	15,769.28	3907.49	0.00	0.00
Sep 13	5:00 PM	15 min	15,490.67	3863.93	0.00	0.00
Sep 13	5:15 PM	15 min	15,420.78	3881.71	0.00	0.00
Sep 13	5:30 PM	15 min	15,632.87	3924.53	0.00	0.00
Sep 13	5:45 PM	15 min	15,763.40	3941.59	0.00	0.00
Sep 13	6:00 PM	15 min	15,769.28	3926.16	0.00	91.22
Sep 13	6:15 PM	5 min	15,640.02	1400.36	729.78	111.12
Sep 13	6:20 PM	0 min	15,479.11		1,739.44	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Sep 20	7:56 AM	5 min	14,611.76	1176.90	0.00	0.00
Sep 20	8:00 AM	15 min	14,810.63	3763.62	0.00	0.00
Sep 20	8:15 AM	15 min	15,298.31	3866.07	0.00	0.00
Sep 20	8:30 AM	15 min	15,630.26	3934.11	0.00	0.00
Sep 20	8:45 AM	15 min	15,842.62	3981.56	0.00	0.00
Sep 20	9:00 AM	15 min	16,009.88	4020.01	0.00	0.00
Sep 20	9:15 AM	15 min	16,150.19	4050.92	0.00	0.00
Sep 20	9:30 AM	15 min	16,257.15	4075.32	0.00	0.00
Sep 20	9:45 AM	15 min	16,345.44	4096.80	0.00	0.00
Sep 20	10:00 AM	15 min	16,428.93	4116.44	0.00	0.00
Sep 20	10:15 AM	15 min	16,502.57	4133.65	0.00	0.00
Sep 20	10:30 AM	15 min	16,566.62	4148.81	0.00	0.00
Sep 20	10:45 AM	15 min	16,623.85	4161.19	0.00	0.00
Sep 20	11:00 AM	15 min	16,665.67	4169.48	0.00	0.00
Sep 20	11:15 AM	15 min	16,690.14	4174.76	0.00	0.00
Sep 20	11:30 AM	15 min	16,707.90	4178.60	0.00	0.00
Sep 20	11:45 AM	15 min	16,720.88	4181.27	0.00	0.00
Sep 20	12:00 PM	15 min	16,729.32	4182.87	0.00	0.00
Sep 20	12:15 PM	15 min	16,733.61	4183.63	0.00	0.00
Sep 20	12:30 PM	15 min	16,735.44	4183.49	0.00	0.00
Sep 20	12:45 PM	15 min	16,732.47	4182.83	0.00	0.00
Sep 20	1:00 PM	15 min	16,730.19	4182.03	0.00	0.00
Sep 20	1:15 PM	15 min	16,726.02	4180.63	0.00	0.00
Sep 20	1:30 PM	15 min	16,718.99	4178.82	0.00	0.00
Sep 20	1:45 PM	15 min	16,711.54	4177.26	0.00	0.00
Sep 20	2:00 PM	15 min	16,706.53	4176.37	0.00	0.00
Sep 20	2:15 PM	15 min	16,704.46	4175.07	0.00	0.00
Sep 20	2:30 PM	15 min	16,696.07	4171.45	0.00	0.00
Sep 20	2:45 PM	15 min	16,675.53	4164.40	0.00	0.00
Sep 20	3:00 PM	15 min	16,639.65	4151.23	0.00	0.00
Sep 20	3:15 PM	15 min	16,570.20	4131.16	0.00	0.00
Sep 20	3:30 PM	15 min	16,479.05	4105.13	0.00	0.00
Sep 20	3:45 PM	15 min	16,362.01	4072.35	0.00	0.00
Sep 20	4:00 PM	15 min	16,216.81	4029.73	0.00	0.00
Sep 20	4:15 PM	15 min	16,021.06	3974.80	0.00	0.00
Sep 20	4:30 PM	15 min	15,777.33	3906.53	0.00	0.00
Sep 20	4:45 PM	15 min	15,474.88	3830.00	0.00	0.00
Sep 20	5:00 PM	15 min	15,165.13	3804.48	0.00	0.00
Sep 20	5:15 PM	15 min	15,270.69	3819.23	0.00	0.00
Sep 20	5:30 PM	15 min	15,283.13	3815.03	0.00	0.00
Sep 20	5:45 PM	15 min	15,237.08	3820.23	0.00	17.39
Sep 20	6:00 PM	9 min	15,324.73	2297.89	139.08	152.41
Sep 20	6:09 PM	0 min	15,313.86		1,893.06	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Sep 27	8:02 AM	13 min	16,517.80	3643.07	0.00	0.00
Sep 27	8:15 AM	15 min	16,601.06	4163.16	0.00	0.00
Sep 27	8:30 AM	15 min	16,704.19	4185.92	0.00	0.00
Sep 27	8:45 AM	15 min	16,783.15	4203.05	0.00	0.00
Sep 27	9:00 AM	15 min	16,841.25	4215.59	0.00	0.00
Sep 27	9:15 AM	15 min	16,883.47	4226.59	0.00	0.00
Sep 27	9:30 AM	15 min	16,929.24	4237.61	0.00	0.00
Sep 27	9:45 AM	15 min	16,971.65	4246.87	0.00	0.00
Sep 27	10:00 AM	15 min	17,003.28	4253.16	0.00	0.00
Sep 27	10:15 AM	15 min	17,021.99	4257.63	0.00	0.00
Sep 27	10:30 AM	15 min	17,039.06	4262.37	0.00	0.00
Sep 27	10:45 AM	15 min	17,059.92	4266.45	0.00	0.00
Sep 27	11:00 AM	15 min	17,071.69	4267.93	0.00	0.00
Sep 27	11:15 AM	15 min	17,071.74	4267.35	0.00	0.00
Sep 27	11:30 AM	15 min	17,067.04	4265.81	0.00	0.00
Sep 27	11:45 AM	15 min	17,059.40	4263.61	0.00	0.00
Sep 27	12:00 PM	15 min	17,049.49	4260.93	0.00	0.00
Sep 27	12:15 PM	15 min	17,037.91	4257.83	0.00	0.00
Sep 27	12:30 PM	15 min	17,024.74	4254.27	0.00	0.00
Sep 27	12:45 PM	15 min	17,009.40	4250.60	0.00	0.00
Sep 27	1:00 PM	15 min	16,995.39	4247.13	0.00	0.00
Sep 27	1:15 PM	15 min	16,981.67	4243.44	0.00	0.00
Sep 27	1:30 PM	15 min	16,965.85	4239.05	0.00	0.00
Sep 27	1:45 PM	15 min	16,946.51	4233.56	0.00	0.00
Sep 27	2:00 PM	15 min	16,921.95	4224.93	0.00	0.00
Sep 27	2:15 PM	15 min	16,877.52	4211.58	0.00	0.00
Sep 27	2:30 PM	15 min	16,815.13	4194.30	0.00	0.00
Sep 27	2:45 PM	15 min	16,739.28	4173.30	0.00	0.00
Sep 27	3:00 PM	15 min	16,647.13	4146.78	0.00	0.00
Sep 27	3:15 PM	15 min	16,527.14	4113.15	0.00	0.00
Sep 27	3:30 PM	15 min	16,378.06	4071.40	0.00	0.00
Sep 27	3:45 PM	15 min	16,193.11	4019.53	0.00	0.00
Sep 27	4:00 PM	15 min	15,963.17	3955.10	0.00	0.00
Sep 27	4:15 PM	15 min	15,677.65	3874.02	0.00	0.00
Sep 27	4:30 PM	15 min	15,314.51	3767.73	0.00	0.00
Sep 27	4:45 PM	15 min	14,827.29	3687.10	0.00	0.00
Sep 27	5:00 PM	15 min	14,669.50	3650.51	0.00	0.00
Sep 27	5:15 PM	15 min	14,534.54	3600.66	0.00	0.00
Sep 27	5:30 PM	15 min	14,270.72	3565.35	0.00	7.91
Sep 27	5:45 PM	13 min	14,252.10	3209.35	63.30	202.50
Sep 27	5:58 PM	0 min	14,923.81		1,777.61	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Oct 4	8:08 AM	7 min	18,387.09	2195.78	0.00	0.00
Oct 4	8:15 AM	15 min	18,209.19	4521.27	0.00	0.00
Oct 4	8:30 AM	15 min	17,960.94	4471.67	0.00	0.00
Oct 4	8:45 AM	15 min	17,812.44	4441.53	0.00	0.00
Oct 4	9:00 AM	15 min	17,719.80	4424.51	0.00	0.00
Oct 4	9:15 AM	15 min	17,676.26	4414.35	0.00	0.00
Oct 4	9:30 AM	15 min	17,638.55	4404.76	0.00	0.00
Oct 4	9:45 AM	15 min	17,599.51	4395.15	0.00	0.00
Oct 4	10:00 AM	15 min	17,561.73	4385.88	0.00	0.00
Oct 4	10:15 AM	15 min	17,525.29	4377.77	0.00	0.00
Oct 4	10:30 AM	15 min	17,496.83	4372.34	0.00	0.00
Oct 4	10:45 AM	15 min	17,481.90	4368.05	0.00	0.00
Oct 4	11:00 AM	15 min	17,462.49	4362.20	0.00	0.00
Oct 4	11:15 AM	15 min	17,435.12	4355.06	0.00	0.00
Oct 4	11:30 AM	15 min	17,405.38	4347.77	0.00	0.00
Oct 4	11:45 AM	15 min	17,376.75	4340.72	0.00	0.00
Oct 4	12:00 PM	15 min	17,349.05	4334.02	0.00	0.00
Oct 4	12:15 PM	15 min	17,323.12	4327.49	0.00	0.00
Oct 4	12:30 PM	15 min	17,296.81	4320.89	0.00	0.00
Oct 4	12:45 PM	15 min	17,270.35	4313.99	0.00	0.00
Oct 4	1:00 PM	15 min	17,241.59	4304.55	0.00	0.00
Oct 4	1:15 PM	15 min	17,194.85	4290.39	0.00	0.00
Oct 4	1:30 PM	15 min	17,128.28	4272.90	0.00	0.00
Oct 4	1:45 PM	15 min	17,054.91	4253.46	0.00	0.00
Oct 4	2:00 PM	15 min	16,972.76	4231.54	0.00	0.00
Oct 4	2:15 PM	15 min	16,879.53	4205.94	0.00	0.00
Oct 4	2:30 PM	15 min	16,768.00	4175.44	0.00	0.00
Oct 4	2:45 PM	15 min	16,635.53	4138.44	0.00	0.00
Oct 4	3:00 PM	15 min	16,472.02	4092.36	0.00	0.00
Oct 4	3:15 PM	15 min	16,266.84	4036.21	0.00	0.00
Oct 4	3:30 PM	15 min	16,022.81	3969.28	0.00	0.00
Oct 4	3:45 PM	15 min	15,731.39	3888.83	0.00	0.00
Oct 4	4:00 PM	15 min	15,379.22	3790.23	0.00	0.00
Oct 4	4:15 PM	15 min	14,942.61	3666.35	0.00	0.00
Oct 4	4:30 PM	15 min	14,388.19	3542.32	0.00	0.00
Oct 4	4:45 PM	15 min	13,950.34	3462.38	0.00	0.00
Oct 4	5:00 PM	15 min	13,748.71	3398.26	0.00	0.00
Oct 4	5:15 PM	15 min	13,437.38	3327.43	0.00	0.00
Oct 4	5:30 PM	15 min	13,182.06	3319.43	0.00	87.29
Oct 4	5:45 PM	3 min	13,373.40	672.51	698.34	44.70
Oct 4	5:48 PM	0 min	13,527.16		1,089.65	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Oct 11	8:15 AM	15 min	19,098.54	4734.65	0.00	0.00
Oct 11	8:30 AM	15 min	18,778.69	4670.97	0.00	0.00
Oct 11	8:45 AM	15 min	18,589.10	4632.26	0.00	0.00
Oct 11	9:00 AM	15 min	18,468.99	4603.63	0.00	0.00
Oct 11	9:15 AM	15 min	18,360.06	4577.32	0.00	0.00
Oct 11	9:30 AM	15 min	18,258.51	4553.26	0.00	0.00
Oct 11	9:45 AM	15 min	18,167.58	4529.91	0.00	0.00
Oct 11	10:00 AM	15 min	18,071.72	4506.91	0.00	0.00
Oct 11	10:15 AM	15 min	17,983.57	4486.65	0.00	0.00
Oct 11	10:30 AM	15 min	17,909.61	4471.19	0.00	0.00
Oct 11	10:45 AM	15 min	17,859.90	4459.31	0.00	0.00
Oct 11	11:00 AM	15 min	17,814.58	4447.17	0.00	0.00
Oct 11	11:15 AM	15 min	17,762.76	4434.26	0.00	0.00
Oct 11	11:30 AM	15 min	17,711.31	4421.92	0.00	0.00
Oct 11	11:45 AM	15 min	17,664.08	4410.49	0.00	0.00
Oct 11	12:00 PM	15 min	17,619.84	4397.14	0.00	0.00
Oct 11	12:15 PM	15 min	17,557.26	4379.87	0.00	0.00
Oct 11	12:30 PM	15 min	17,481.74	4359.92	0.00	0.00
Oct 11	12:45 PM	15 min	17,397.63	4337.06	0.00	0.00
Oct 11	1:00 PM	15 min	17,298.81	4311.31	0.00	0.00
Oct 11	1:15 PM	15 min	17,191.67	4281.51	0.00	0.00
Oct 11	1:30 PM	15 min	17,060.44	4247.11	0.00	0.00
Oct 11	1:45 PM	15 min	16,916.44	4209.76	0.00	0.00
Oct 11	2:00 PM	15 min	16,761.60	4170.13	0.00	0.00
Oct 11	2:15 PM	15 min	16,599.46	4127.21	0.00	0.00
Oct 11	2:30 PM	15 min	16,418.25	4078.91	0.00	0.00
Oct 11	2:45 PM	15 min	16,213.03	4024.13	0.00	0.00
Oct 11	3:00 PM	15 min	15,980.04	3961.93	0.00	0.00
Oct 11	3:15 PM	15 min	15,715.36	3889.82	0.00	0.00
Oct 11	3:30 PM	15 min	15,403.22	3803.58	0.00	0.00
Oct 11	3:45 PM	15 min	15,025.42	3697.98	0.00	0.00
Oct 11	4:00 PM	15 min	14,558.40	3565.20	0.00	0.00
Oct 11	4:15 PM	15 min	13,963.18	3402.46	0.00	0.00
Oct 11	4:30 PM	15 min	13,256.49	3280.45	0.00	0.00
Oct 11	4:45 PM	15 min	12,987.07	3208.35	0.00	0.00
Oct 11	5:00 PM	15 min	12,679.72	3113.23	0.00	0.00
Oct 11	5:15 PM	15 min	12,226.10	3030.65	0.00	3.81
Oct 11	5:30 PM	7 min	12,019.09	1459.13	30.45	30.14
Oct 11	5:37 PM	0 min	12,299.66		471.82	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Oct 18	8:21 AM	9 min	19,306.05	3074.68	0.00	0.00
Oct 18	8:30 AM	15 min	19,127.51	4739.00	0.00	0.00
Oct 18	8:45 AM	15 min	18,784.52	4672.82	0.00	0.00
Oct 18	9:00 AM	15 min	18,598.01	4632.21	0.00	0.00
Oct 18	9:15 AM	15 min	18,459.70	4602.09	0.00	0.00
Oct 18	9:30 AM	15 min	18,357.05	4577.86	0.00	0.00
Oct 18	9:45 AM	15 min	18,265.83	4555.78	0.00	0.00
Oct 18	10:00 AM	15 min	18,180.43	4534.80	0.00	0.00
Oct 18	10:15 AM	15 min	18,097.99	4514.59	0.00	0.00
Oct 18	10:30 AM	15 min	18,018.77	4497.09	0.00	0.00
Oct 18	10:45 AM	15 min	17,957.98	4479.99	0.00	0.00
Oct 18	11:00 AM	15 min	17,881.92	4458.29	0.00	0.00
Oct 18	11:15 AM	15 min	17,784.40	4433.04	0.00	0.00
Oct 18	11:30 AM	15 min	17,679.93	4406.66	0.00	0.00
Oct 18	11:45 AM	15 min	17,573.37	4379.79	0.00	0.00
Oct 18	12:00 PM	15 min	17,464.97	4352.27	0.00	0.00
Oct 18	12:15 PM	15 min	17,353.20	4323.54	0.00	0.00
Oct 18	12:30 PM	15 min	17,235.15	4293.10	0.00	0.00
Oct 18	12:45 PM	15 min	17,109.64	4260.83	0.00	0.00
Oct 18	1:00 PM	15 min	16,976.98	4226.67	0.00	0.00
Oct 18	1:15 PM	15 min	16,836.36	4190.04	0.00	0.00
Oct 18	1:30 PM	15 min	16,683.96	4150.22	0.00	0.00
Oct 18	1:45 PM	15 min	16,517.78	4106.95	0.00	0.00
Oct 18	2:00 PM	15 min	16,337.78	4060.47	0.00	0.00
Oct 18	2:15 PM	15 min	16,146.01	4009.91	0.00	0.00
Oct 18	2:30 PM	15 min	15,933.24	3953.07	0.00	0.00
Oct 18	2:45 PM	15 min	15,691.33	3887.57	0.00	0.00
Oct 18	3:00 PM	15 min	15,409.23	3810.81	0.00	0.00
Oct 18	3:15 PM	15 min	15,077.22	3719.48	0.00	0.00
Oct 18	3:30 PM	15 min	14,678.62	3608.20	0.00	0.00
Oct 18	3:45 PM	15 min	14,186.96	3468.75	0.00	0.00
Oct 18	4:00 PM	15 min	13,563.03	3291.33	0.00	0.00
Oct 18	4:15 PM	15 min	12,767.61	3129.38	0.00	0.00
Oct 18	4:30 PM	15 min	12,267.42	3024.77	0.00	0.00
Oct 18	4:45 PM	15 min	11,930.72	2925.90	0.00	0.00
Oct 18	5:00 PM	15 min	11,476.49	2793.47	0.00	0.00
Oct 18	5:15 PM	13 min	10,871.26	2409.44	0.00	9.78
Oct 18	5:28 PM	0 min	11,032.78		88.93	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Oct 25	8:28 AM	2 min	19,059.13	761.88	0.00	0.00
Oct 25	8:30 AM	15 min	19,034.97	4685.74	0.00	0.00
Oct 25	8:45 AM	15 min	18,450.99	4578.54	0.00	0.00
Oct 25	9:00 AM	15 min	18,177.35	4532.82	0.00	0.00
Oct 25	9:15 AM	15 min	18,085.18	4510.03	0.00	0.00
Oct 25	9:30 AM	15 min	17,995.10	4489.71	0.00	0.00
Oct 25	9:45 AM	15 min	17,922.59	4471.67	0.00	0.00
Oct 25	10:00 AM	15 min	17,850.81	4452.65	0.00	0.00
Oct 25	10:15 AM	15 min	17,770.41	4431.37	0.00	0.00
Oct 25	10:30 AM	15 min	17,680.58	4410.80	0.00	0.00
Oct 25	10:45 AM	15 min	17,605.81	4392.32	0.00	0.00
Oct 25	11:00 AM	15 min	17,532.72	4371.65	0.00	0.00
Oct 25	11:15 AM	15 min	17,440.51	4347.19	0.00	0.00
Oct 25	11:30 AM	15 min	17,337.04	4320.80	0.00	0.00
Oct 25	11:45 AM	15 min	17,229.39	4293.51	0.00	0.00
Oct 25	12:00 PM	15 min	17,118.66	4265.06	0.00	0.00
Oct 25	12:15 PM	15 min	17,001.80	4234.79	0.00	0.00
Oct 25	12:30 PM	15 min	16,876.50	4202.23	0.00	0.00
Oct 25	12:45 PM	15 min	16,741.35	4167.26	0.00	0.00
Oct 25	1:00 PM	15 min	16,596.73	4129.71	0.00	0.00
Oct 25	1:15 PM	15 min	16,440.98	4088.87	0.00	0.00
Oct 25	1:30 PM	15 min	16,269.96	4043.86	0.00	0.00
Oct 25	1:45 PM	15 min	16,080.96	3994.06	0.00	0.00
Oct 25	2:00 PM	15 min	15,871.49	3940.51	0.00	0.00
Oct 25	2:15 PM	15 min	15,652.57	3882.24	0.00	0.00
Oct 25	2:30 PM	15 min	15,405.33	3814.74	0.00	0.00
Oct 25	2:45 PM	15 min	15,112.59	3734.81	0.00	0.00
Oct 25	3:00 PM	15 min	14,765.88	3639.38	0.00	0.00
Oct 25	3:15 PM	15 min	14,349.18	3523.66	0.00	0.00
Oct 25	3:30 PM	15 min	13,840.13	3380.01	0.00	0.00
Oct 25	3:45 PM	15 min	13,199.93	3200.71	0.00	0.00
Oct 25	4:00 PM	15 min	12,405.74	3001.38	0.00	0.00
Oct 25	4:15 PM	15 min	11,605.34	2854.75	0.00	0.00
Oct 25	4:30 PM	15 min	11,232.66	2744.40	0.00	0.00
Oct 25	4:45 PM	15 min	10,722.54	2594.73	0.00	0.00
Oct 25	5:00 PM	15 min	10,035.31	2472.59	0.00	0.00
Oct 25	5:15 PM	4 min	9,745.42	686.16	0.00	0.00
Oct 25	5:19 PM	0 min	9,859.10		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 1	8:35 AM	10 min	18,602.88	3132.97	0.00	0.00
Nov 1	8:45 AM	15 min	18,255.60	4498.08	0.00	0.00
Nov 1	9:00 AM	15 min	17,729.03	4406.29	0.00	0.00
Nov 1	9:15 AM	15 min	17,521.28	4375.23	0.00	0.00
Nov 1	9:30 AM	15 min	17,480.60	4363.93	0.00	0.00
Nov 1	9:45 AM	15 min	17,430.81	4351.79	0.00	0.00
Nov 1	10:00 AM	15 min	17,383.52	4340.04	0.00	0.00
Nov 1	10:15 AM	15 min	17,336.83	4326.24	0.00	0.00
Nov 1	10:30 AM	15 min	17,273.07	4310.43	0.00	0.00
Nov 1	10:45 AM	15 min	17,210.35	4295.06	0.00	0.00
Nov 1	11:00 AM	15 min	17,150.12	4277.19	0.00	0.00
Nov 1	11:15 AM	15 min	17,067.42	4254.24	0.00	0.00
Nov 1	11:30 AM	15 min	16,966.48	4228.17	0.00	0.00
Nov 1	11:45 AM	15 min	16,858.92	4200.70	0.00	0.00
Nov 1	12:00 PM	15 min	16,746.70	4171.49	0.00	0.00
Nov 1	12:15 PM	15 min	16,625.19	4139.72	0.00	0.00
Nov 1	12:30 PM	15 min	16,492.56	4105.01	0.00	0.00
Nov 1	12:45 PM	15 min	16,347.50	4067.19	0.00	0.00
Nov 1	1:00 PM	15 min	16,190.01	4026.17	0.00	0.00
Nov 1	1:15 PM	15 min	16,019.33	3981.49	0.00	0.00
Nov 1	1:30 PM	15 min	15,832.56	3931.47	0.00	0.00
Nov 1	1:45 PM	15 min	15,619.18	3873.61	0.00	0.00
Nov 1	2:00 PM	15 min	15,369.72	3810.87	0.00	0.00
Nov 1	2:15 PM	15 min	15,117.22	3743.58	0.00	0.00
Nov 1	2:30 PM	15 min	14,831.42	3663.75	0.00	0.00
Nov 1	2:45 PM	15 min	14,478.56	3566.55	0.00	0.00
Nov 1	3:00 PM	15 min	14,053.88	3448.51	0.00	0.00
Nov 1	3:15 PM	15 min	13,534.17	3303.39	0.00	0.00
Nov 1	3:30 PM	15 min	12,892.97	3125.86	0.00	0.00
Nov 1	3:45 PM	15 min	12,113.92	2912.70	0.00	0.00
Nov 1	4:00 PM	15 min	11,187.70	2724.78	0.00	0.00
Nov 1	4:15 PM	15 min	10,610.53	2586.63	0.00	0.00
Nov 1	4:30 PM	15 min	10,082.47	2424.56	0.00	0.00
Nov 1	4:45 PM	15 min	9,313.98	2241.07	0.00	0.00
Nov 1	5:00 PM	11 min	8,614.55	1633.41	0.00	0.00
Nov 1	5:11 PM	0 min	8,579.20		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 8	7:43 AM	2 min	18,074.01	721.83	0.00	0.00
Nov 8	7:45 AM	15 min	18,017.68	4433.74	0.00	0.00
Nov 8	8:00 AM	15 min	17,452.24	4313.26	0.00	0.00
Nov 8	8:15 AM	15 min	17,053.83	4245.27	0.00	0.00
Nov 8	8:30 AM	15 min	16,908.32	4225.30	0.00	0.00
Nov 8	8:45 AM	15 min	16,894.11	4222.16	0.00	0.00
Nov 8	9:00 AM	15 min	16,883.20	4217.34	0.00	0.00
Nov 8	9:15 AM	15 min	16,855.51	4209.86	0.00	0.00
Nov 8	9:30 AM	15 min	16,823.39	4200.33	0.00	0.00
Nov 8	9:45 AM	15 min	16,779.24	4189.53	0.00	0.00
Nov 8	10:00 AM	15 min	16,737.02	4175.89	0.00	0.00
Nov 8	10:15 AM	15 min	16,670.13	4155.61	0.00	0.00
Nov 8	10:30 AM	15 min	16,574.74	4130.52	0.00	0.00
Nov 8	10:45 AM	15 min	16,469.39	4103.24	0.00	0.00
Nov 8	11:00 AM	15 min	16,356.54	4073.49	0.00	0.00
Nov 8	11:15 AM	15 min	16,231.34	4040.43	0.00	0.00
Nov 8	11:30 AM	15 min	16,092.14	4004.05	0.00	0.00
Nov 8	11:45 AM	15 min	15,940.30	3964.34	0.00	0.00
Nov 8	12:00 PM	15 min	15,774.39	3920.63	0.00	0.00
Nov 8	12:15 PM	15 min	15,590.65	3871.73	0.00	0.00
Nov 8	12:30 PM	15 min	15,383.17	3815.47	0.00	0.00
Nov 8	12:45 PM	15 min	15,140.62	3748.78	0.00	0.00
Nov 8	1:00 PM	15 min	14,849.62	3675.11	0.00	0.00
Nov 8	1:15 PM	15 min	14,551.29	3596.52	0.00	0.00
Nov 8	1:30 PM	15 min	14,220.84	3502.97	0.00	0.00
Nov 8	1:45 PM	15 min	13,802.92	3386.63	0.00	0.00
Nov 8	2:00 PM	15 min	13,290.13	3243.88	0.00	0.00
Nov 8	2:15 PM	15 min	12,660.88	3071.81	0.00	0.00
Nov 8	2:30 PM	15 min	11,913.58	2868.14	0.00	0.00
Nov 8	2:45 PM	15 min	11,031.50	2638.11	0.00	0.00
Nov 8	3:00 PM	15 min	10,073.39	2450.78	0.00	0.00
Nov 8	3:15 PM	15 min	9,532.83	2286.17	0.00	0.00
Nov 8	3:30 PM	15 min	8,756.55	2089.37	0.00	0.00
Nov 8	3:45 PM	15 min	7,958.42	1987.57	0.00	0.00
Nov 8	4:00 PM	4 min	7,942.15	572.26	0.00	0.00
Nov 8	4:04 PM	0 min	8,408.26		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 15	7:50 AM	10 min	17,816.11	2982.38	0.00	0.00
Nov 15	8:00 AM	15 min	17,270.67	4250.37	0.00	0.00
Nov 15	8:15 AM	15 min	16,732.26	4144.79	0.00	0.00
Nov 15	8:30 AM	15 min	16,426.09	4095.73	0.00	0.00
Nov 15	8:45 AM	15 min	16,339.72	4084.70	0.00	0.00
Nov 15	9:00 AM	15 min	16,337.86	4087.37	0.00	0.00
Nov 15	9:15 AM	15 min	16,361.10	4089.23	0.00	0.00
Nov 15	9:30 AM	15 min	16,352.77	4084.71	0.00	0.00
Nov 15	9:45 AM	15 min	16,324.89	4078.32	0.00	0.00
Nov 15	10:00 AM	15 min	16,301.67	4069.77	0.00	0.00
Nov 15	10:15 AM	15 min	16,256.49	4053.57	0.00	0.00
Nov 15	10:30 AM	15 min	16,172.05	4030.52	0.00	0.00
Nov 15	10:45 AM	15 min	16,072.09	4004.35	0.00	0.00
Nov 15	11:00 AM	15 min	15,962.73	3975.22	0.00	0.00
Nov 15	11:15 AM	15 min	15,839.00	3942.22	0.00	0.00
Nov 15	11:30 AM	15 min	15,698.74	3904.81	0.00	0.00
Nov 15	11:45 AM	15 min	15,539.76	3862.66	0.00	0.00
Nov 15	12:00 PM	15 min	15,361.53	3815.35	0.00	0.00
Nov 15	12:15 PM	15 min	15,161.25	3761.74	0.00	0.00
Nov 15	12:30 PM	15 min	14,932.67	3699.44	0.00	0.00
Nov 15	12:45 PM	15 min	14,662.88	3624.22	0.00	0.00
Nov 15	1:00 PM	15 min	14,330.91	3538.33	0.00	0.00
Nov 15	1:15 PM	15 min	13,975.71	3446.31	0.00	0.00
Nov 15	1:30 PM	15 min	13,594.78	3338.79	0.00	0.00
Nov 15	1:45 PM	15 min	13,115.53	3203.83	0.00	0.00
Nov 15	2:00 PM	15 min	12,515.10	3041.21	0.00	0.00
Nov 15	2:15 PM	15 min	11,814.58	2849.77	0.00	0.00
Nov 15	2:30 PM	15 min	10,983.61	2621.34	0.00	0.00
Nov 15	2:45 PM	15 min	9,987.13	2385.22	0.00	0.00
Nov 15	3:00 PM	15 min	9,094.67	2196.50	0.00	0.00
Nov 15	3:15 PM	15 min	8,477.37	2041.31	0.00	0.00
Nov 15	3:30 PM	15 min	7,853.12	1916.94	0.00	0.00
Nov 15	3:45 PM	13 min	7,482.37	1836.90	0.00	0.00
Nov 15	3:58 PM	0 min	9,216.69		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 22	7:58 AM	2 min	17,735.82	706.33	0.00	0.00
Nov 22	8:00 AM	15 min	17,580.64	4260.62	0.00	0.00
Nov 22	8:15 AM	15 min	16,504.29	4072.49	0.00	0.00
Nov 22	8:30 AM	15 min	16,075.65	3993.57	0.00	0.00
Nov 22	8:45 AM	15 min	15,872.94	3962.75	0.00	0.00
Nov 22	9:00 AM	15 min	15,829.05	3958.31	0.00	0.00
Nov 22	9:15 AM	15 min	15,837.41	3965.29	0.00	0.00
Nov 22	9:30 AM	15 min	15,884.88	3971.73	0.00	0.00
Nov 22	9:45 AM	15 min	15,888.97	3970.14	0.00	0.00
Nov 22	10:00 AM	15 min	15,872.15	3964.91	0.00	0.00
Nov 22	10:15 AM	15 min	15,847.15	3953.54	0.00	0.00
Nov 22	10:30 AM	15 min	15,781.16	3934.21	0.00	0.00
Nov 22	10:45 AM	15 min	15,692.49	3910.19	0.00	0.00
Nov 22	11:00 AM	15 min	15,589.03	3881.95	0.00	0.00
Nov 22	11:15 AM	15 min	15,466.59	3848.74	0.00	0.00
Nov 22	11:30 AM	15 min	15,323.35	3810.09	0.00	0.00
Nov 22	11:45 AM	15 min	15,157.38	3765.69	0.00	0.00
Nov 22	12:00 PM	15 min	14,968.15	3715.15	0.00	0.00
Nov 22	12:15 PM	15 min	14,753.08	3657.21	0.00	0.00
Nov 22	12:30 PM	15 min	14,504.60	3589.60	0.00	0.00
Nov 22	12:45 PM	15 min	14,212.22	3506.84	0.00	0.00
Nov 22	1:00 PM	15 min	13,842.53	3408.47	0.00	0.00
Nov 22	1:15 PM	15 min	13,425.21	3302.54	0.00	0.00
Nov 22	1:30 PM	15 min	12,995.09	3182.33	0.00	0.00
Nov 22	1:45 PM	15 min	12,463.57	3035.43	0.00	0.00
Nov 22	2:00 PM	15 min	11,819.88	2859.80	0.00	0.00
Nov 22	2:15 PM	15 min	11,058.56	2650.45	0.00	0.00
Nov 22	2:30 PM	15 min	10,145.02	2398.31	0.00	0.00
Nov 22	2:45 PM	15 min	9,041.44	2163.63	0.00	0.00
Nov 22	3:00 PM	15 min	8,267.56	1992.44	0.00	0.00
Nov 22	3:15 PM	15 min	7,671.99	1848.49	0.00	0.00
Nov 22	3:30 PM	15 min	7,115.92	1903.22	0.00	0.00
Nov 22	3:45 PM	9 min	8,109.88	1437.14	0.00	0.00
Nov 22	3:54 PM	0 min	11,051.96		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Nov 29	8:05 AM	10 min	17,654.67	2907.55	0.00	0.00
Nov 29	8:15 AM	15 min	16,551.80	4060.83	0.00	0.00
Nov 29	8:30 AM	15 min	15,934.88	3939.71	0.00	0.00
Nov 29	8:45 AM	15 min	15,582.78	3874.90	0.00	0.00
Nov 29	9:00 AM	15 min	15,416.44	3853.11	0.00	0.00
Nov 29	9:15 AM	15 min	15,408.43	3855.11	0.00	0.00
Nov 29	9:30 AM	15 min	15,432.47	3864.93	0.00	0.00
Nov 29	9:45 AM	15 min	15,486.95	3872.75	0.00	0.00
Nov 29	10:00 AM	15 min	15,495.03	3872.29	0.00	0.00
Nov 29	10:15 AM	15 min	15,483.27	3864.11	0.00	0.00
Nov 29	10:30 AM	15 min	15,429.65	3847.20	0.00	0.00
Nov 29	10:45 AM	15 min	15,347.94	3824.82	0.00	0.00
Nov 29	11:00 AM	15 min	15,250.60	3797.69	0.00	0.00
Nov 29	11:15 AM	15 min	15,130.93	3764.71	0.00	0.00
Nov 29	11:30 AM	15 min	14,986.77	3725.45	0.00	0.00
Nov 29	11:45 AM	15 min	14,816.81	3679.47	0.00	0.00
Nov 29	12:00 PM	15 min	14,618.94	3626.47	0.00	0.00
Nov 29	12:15 PM	15 min	14,392.81	3565.19	0.00	0.00
Nov 29	12:30 PM	15 min	14,128.69	3493.44	0.00	0.00
Nov 29	12:45 PM	15 min	13,818.85	3405.01	0.00	0.00
Nov 29	1:00 PM	15 min	13,421.24	3295.75	0.00	0.00
Nov 29	1:15 PM	15 min	12,944.78	3176.68	0.00	0.00
Nov 29	1:30 PM	15 min	12,468.68	3049.85	0.00	0.00
Nov 29	1:45 PM	15 min	11,930.15	2897.40	0.00	0.00
Nov 29	2:00 PM	15 min	11,249.08	2710.79	0.00	0.00
Nov 29	2:15 PM	15 min	10,437.28	2489.35	0.00	0.00
Nov 29	2:30 PM	15 min	9,477.55	2222.10	0.00	0.00
Nov 29	2:45 PM	15 min	8,299.27	1982.50	0.00	0.00
Nov 29	3:00 PM	15 min	7,560.76	1810.62	0.00	0.00
Nov 29	3:15 PM	15 min	6,924.21	1757.49	0.00	0.00
Nov 29	3:30 PM	15 min	7,135.72	2115.07	0.00	0.00
Nov 29	3:45 PM	6 min	9,784.86	1116.47	0.00	0.00
Nov 29	3:51 PM	0 min	12,544.48		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Dec 6	8:11 AM	5 min	17,599.76	1387.82	0.00	0.00
Dec 6	8:15 AM	15 min	17,095.66	4134.22	0.00	0.00
Dec 6	8:30 AM	15 min	15,978.13	3923.07	0.00	0.00
Dec 6	8:45 AM	15 min	15,406.43	3818.03	0.00	0.00
Dec 6	9:00 AM	15 min	15,137.82	3773.92	0.00	0.00
Dec 6	9:15 AM	15 min	15,053.55	3767.51	0.00	0.00
Dec 6	9:30 AM	15 min	15,086.51	3776.06	0.00	0.00
Dec 6	9:45 AM	15 min	15,121.97	3786.23	0.00	0.00
Dec 6	10:00 AM	15 min	15,167.85	3793.80	0.00	0.00
Dec 6	10:15 AM	15 min	15,182.54	3791.50	0.00	0.00
Dec 6	10:30 AM	15 min	15,149.49	3777.37	0.00	0.00
Dec 6	10:45 AM	15 min	15,069.43	3755.53	0.00	0.00
Dec 6	11:00 AM	15 min	14,974.78	3729.26	0.00	0.00
Dec 6	11:15 AM	15 min	14,859.26	3697.08	0.00	0.00
Dec 6	11:30 AM	15 min	14,717.40	3658.01	0.00	0.00
Dec 6	11:45 AM	15 min	14,546.68	3611.43	0.00	0.00
Dec 6	12:00 PM	15 min	14,344.72	3557.12	0.00	0.00
Dec 6	12:15 PM	15 min	14,112.22	3493.90	0.00	0.00
Dec 6	12:30 PM	15 min	13,838.96	3419.39	0.00	0.00
Dec 6	12:45 PM	15 min	13,516.19	3327.86	0.00	0.00
Dec 6	1:00 PM	15 min	13,106.71	3213.08	0.00	0.00
Dec 6	1:15 PM	15 min	12,597.94	3085.90	0.00	0.00
Dec 6	1:30 PM	15 min	12,089.24	2953.03	0.00	0.00
Dec 6	1:45 PM	15 min	11,535.04	2797.89	0.00	0.00
Dec 6	2:00 PM	15 min	10,848.06	2608.89	0.00	0.00
Dec 6	2:15 PM	15 min	10,023.03	2380.54	0.00	0.00
Dec 6	2:30 PM	15 min	9,021.32	2101.59	0.00	0.00
Dec 6	2:45 PM	15 min	7,791.38	1852.00	0.00	0.00
Dec 6	3:00 PM	15 min	7,024.60	1693.08	0.00	0.00
Dec 6	3:15 PM	15 min	6,520.00	1746.29	0.00	0.00
Dec 6	3:30 PM	15 min	7,450.35	2329.39	0.00	0.00
Dec 6	3:45 PM	6 min	11,184.75	1278.08	0.00	0.00
Dec 6	3:51 PM	0 min	14,376.94		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Dec 13	8:17 AM	13 min	17,464.31	3692.64	0.00	0.00
Dec 13	8:30 AM	15 min	16,105.18	3948.19	0.00	0.00
Dec 13	8:45 AM	15 min	15,480.35	3809.63	0.00	0.00
Dec 13	9:00 AM	15 min	14,996.72	3728.15	0.00	0.00
Dec 13	9:15 AM	15 min	14,828.46	3709.24	0.00	0.00
Dec 13	9:30 AM	15 min	14,845.45	3715.39	0.00	0.00
Dec 13	9:45 AM	15 min	14,877.69	3725.17	0.00	0.00
Dec 13	10:00 AM	15 min	14,923.64	3735.76	0.00	0.00
Dec 13	10:15 AM	15 min	14,962.44	3739.91	0.00	0.00
Dec 13	10:30 AM	15 min	14,956.81	3730.61	0.00	0.00
Dec 13	10:45 AM	15 min	14,888.06	3710.55	0.00	0.00
Dec 13	11:00 AM	15 min	14,796.35	3684.89	0.00	0.00
Dec 13	11:15 AM	15 min	14,682.76	3653.36	0.00	0.00
Dec 13	11:30 AM	15 min	14,544.12	3615.06	0.00	0.00
Dec 13	11:45 AM	15 min	14,376.33	3568.99	0.00	0.00
Dec 13	12:00 PM	15 min	14,175.63	3514.68	0.00	0.00
Dec 13	12:15 PM	15 min	13,941.83	3451.09	0.00	0.00
Dec 13	12:30 PM	15 min	13,666.88	3375.95	0.00	0.00
Dec 13	12:45 PM	15 min	13,340.69	3284.28	0.00	0.00
Dec 13	1:00 PM	15 min	12,933.58	3169.16	0.00	0.00
Dec 13	1:15 PM	15 min	12,419.67	3037.77	0.00	0.00
Dec 13	1:30 PM	15 min	11,882.53	2901.18	0.00	0.00
Dec 13	1:45 PM	15 min	11,326.95	2747.96	0.00	0.00
Dec 13	2:00 PM	15 min	10,656.72	2560.86	0.00	0.00
Dec 13	2:15 PM	15 min	9,830.19	2330.69	0.00	0.00
Dec 13	2:30 PM	15 min	8,815.35	2047.11	0.00	0.00
Dec 13	2:45 PM	15 min	7,561.52	1789.06	0.00	0.00
Dec 13	3:00 PM	15 min	6,750.94	1642.71	0.00	0.00
Dec 13	3:15 PM	15 min	6,390.76	1739.26	0.00	0.00
Dec 13	3:30 PM	15 min	7,523.35	2392.86	0.00	0.00
Dec 13	3:45 PM	6 min	11,619.51	1323.00	0.00	0.00
Dec 13	3:51 PM	0 min	14,840.42		0.00	

SOMA WEST SKATE PARK

F2

Quantitative Shading Calculations for SOMA West Skate Park

Analysis Run: 5/4/2015

Data Color Key

Technician: AP

EXAMPLE

No new shading from proposed project

EXAMPLE

No new shading from project + cumulative

EXAMPLE

Existing Shading

EXAMPLE

New Shading

Date	Start Time	Duration	Current Park Shading		New Shading from Project	
			Shadow Area (sf)	Shading (sfh)	Shadow Area (sf)	Shading (sfh)
Dec 21	8:22 AM	8 min	17,404.57	2375.90	0.00	0.00
Dec 21	8:30 AM	15 min	16,536.79	4024.70	0.00	0.00
Dec 21	8:45 AM	15 min	15,660.77	3832.25	0.00	0.00
Dec 21	9:00 AM	15 min	14,997.24	3721.71	0.00	0.00
Dec 21	9:15 AM	15 min	14,776.43	3687.39	0.00	0.00
Dec 21	9:30 AM	15 min	14,722.65	3685.65	0.00	0.00
Dec 21	9:45 AM	15 min	14,762.55	3696.20	0.00	0.00
Dec 21	10:00 AM	15 min	14,807.07	3707.44	0.00	0.00
Dec 21	10:15 AM	15 min	14,852.44	3715.30	0.00	0.00
Dec 21	10:30 AM	15 min	14,869.94	3711.19	0.00	0.00
Dec 21	10:45 AM	15 min	14,819.60	3694.26	0.00	0.00
Dec 21	11:00 AM	15 min	14,734.52	3670.05	0.00	0.00
Dec 21	11:15 AM	15 min	14,625.85	3639.80	0.00	0.00
Dec 21	11:30 AM	15 min	14,492.57	3602.92	0.00	0.00
Dec 21	11:45 AM	15 min	14,330.79	3558.46	0.00	0.00
Dec 21	12:00 PM	15 min	14,136.88	3505.72	0.00	0.00
Dec 21	12:15 PM	15 min	13,908.91	3443.76	0.00	0.00
Dec 21	12:30 PM	15 min	13,641.19	3370.54	0.00	0.00
Dec 21	12:45 PM	15 min	13,323.10	3282.44	0.00	0.00
Dec 21	1:00 PM	15 min	12,936.39	3171.55	0.00	0.00
Dec 21	1:15 PM	15 min	12,436.03	3039.58	0.00	0.00
Dec 21	1:30 PM	15 min	11,880.63	2902.48	0.00	0.00
Dec 21	1:45 PM	15 min	11,339.24	2755.34	0.00	0.00
Dec 21	2:00 PM	15 min	10,703.46	2575.50	0.00	0.00
Dec 21	2:15 PM	15 min	9,900.53	2352.34	0.00	0.00
Dec 21	2:30 PM	15 min	8,918.17	2075.19	0.00	0.00
Dec 21	2:45 PM	15 min	7,683.31	1804.15	0.00	0.00
Dec 21	3:00 PM	15 min	6,749.87	1629.59	0.00	0.00
Dec 21	3:15 PM	15 min	6,286.86	1691.14	0.00	0.00
Dec 21	3:30 PM	15 min	7,242.26	2240.19	0.00	0.00
Dec 21	3:45 PM	10 min	10,679.29	2254.94	0.00	0.00
Dec 21	3:55 PM	0 min	15,849.47		0.00	

HALF/FULL YEAR AGGRAGATED SUMMARY

Half-Year Totals For Project (sfh)

Annual Totals For Project (sfh)

Shading as a % of Total Annual Available Sunlight (TAAS)

Current Conditions

27,854,423

55,277,651

70.65%

New/Added

7,077

14,124

0.02%



1067 Market Street, Suite 4006
San Francisco, CA 94103

tel 415.498.0141
fax 415.493.0141

www.previsiondesign.com
info@previsiondesign.com

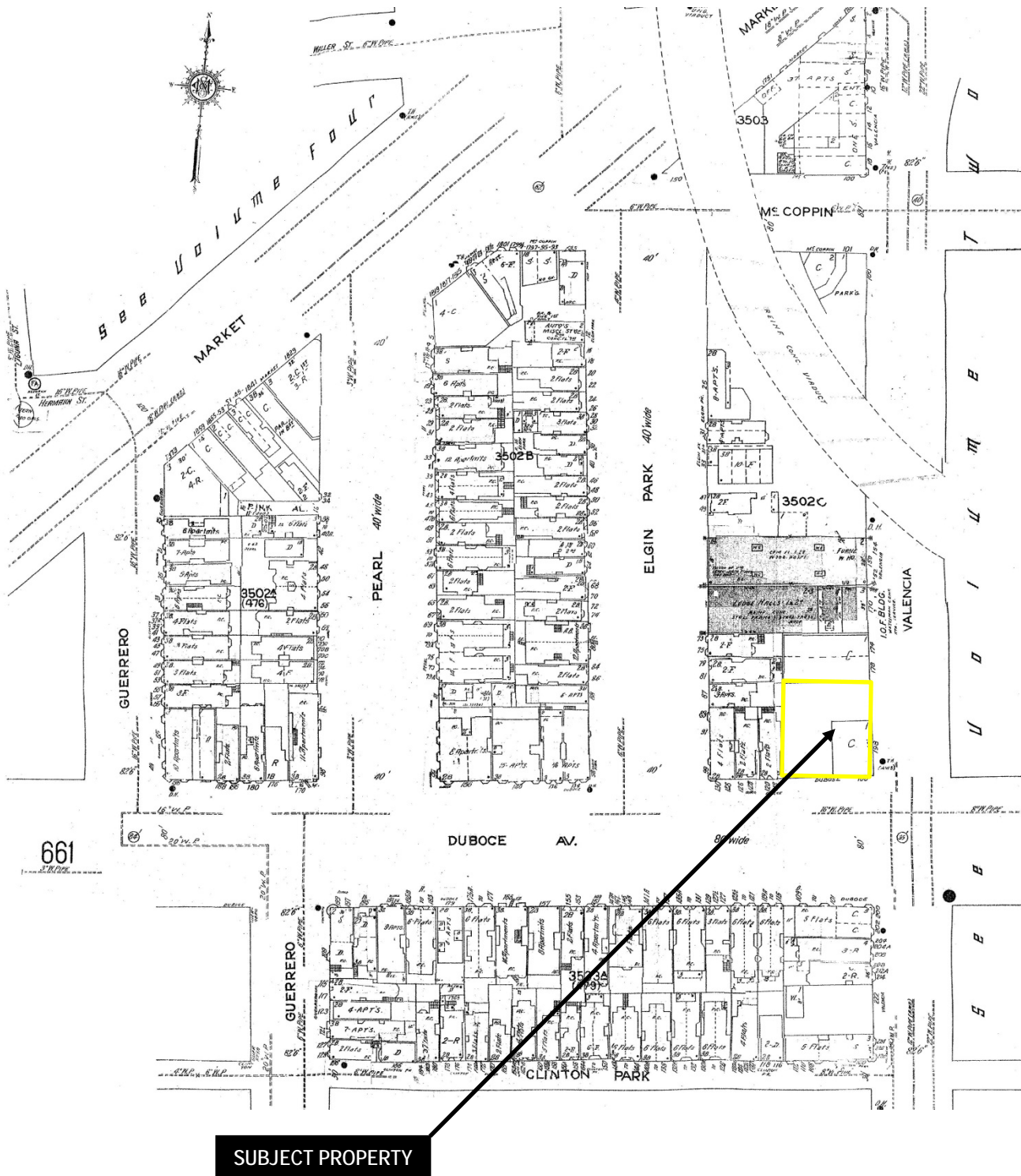
Block Book Map



SUBJECT PROPERTY

Discretionary Review Hearing
Case Number 2013.1458DRP, DRP-02
198 Valencia Street

Sanborn Map*

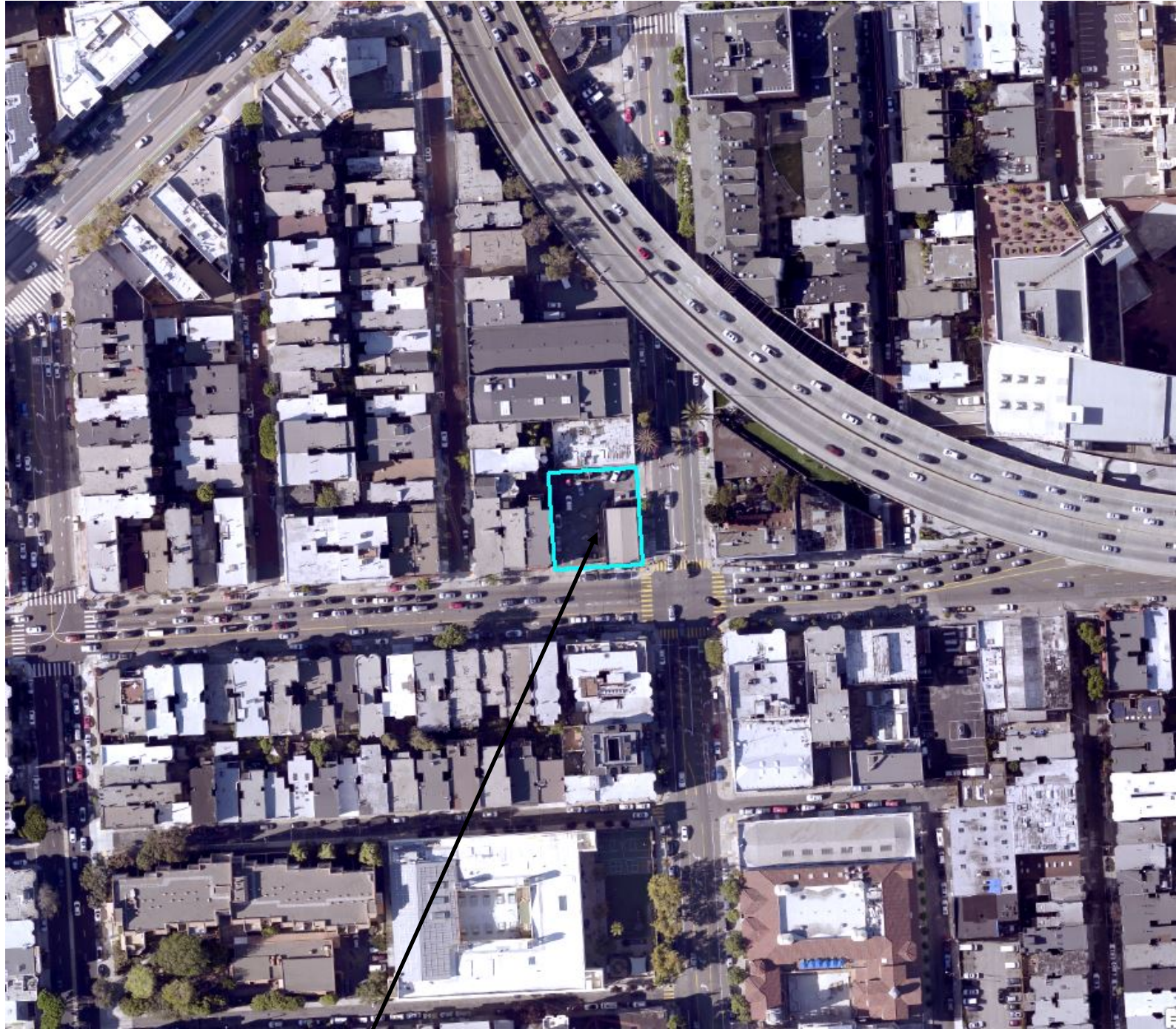


*The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.



Discretionary Review Hearing
Case Number 2013.1458DRP, DRP-02
198 Valencia Street

Aerial Photo

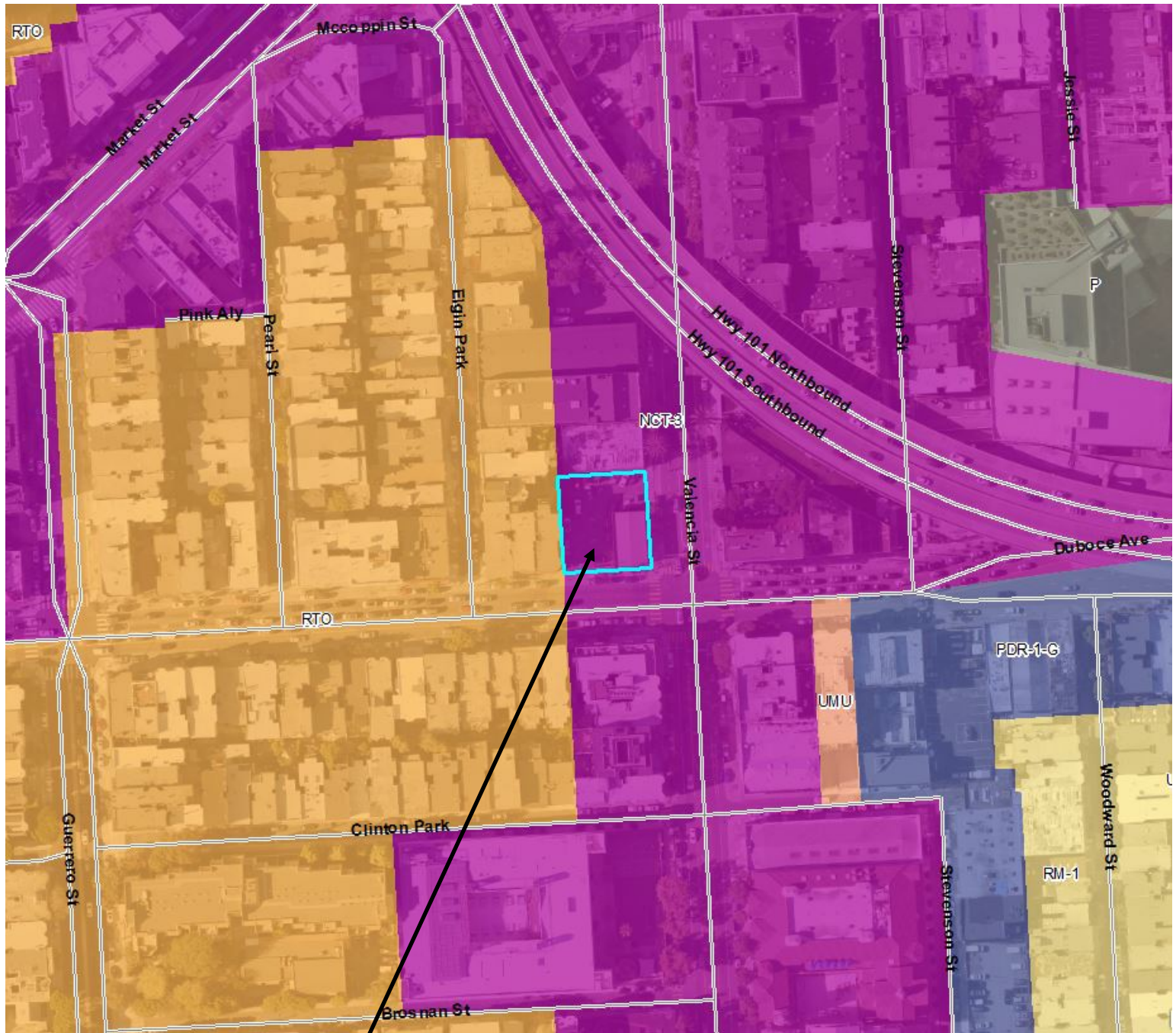


SUBJECT PROPERTY



Discretionary Review Hearing
Case Number 2013.1458DRP, DRP-02
198 Valencia Street

Zoning Map



SUBJECT PROPERTY



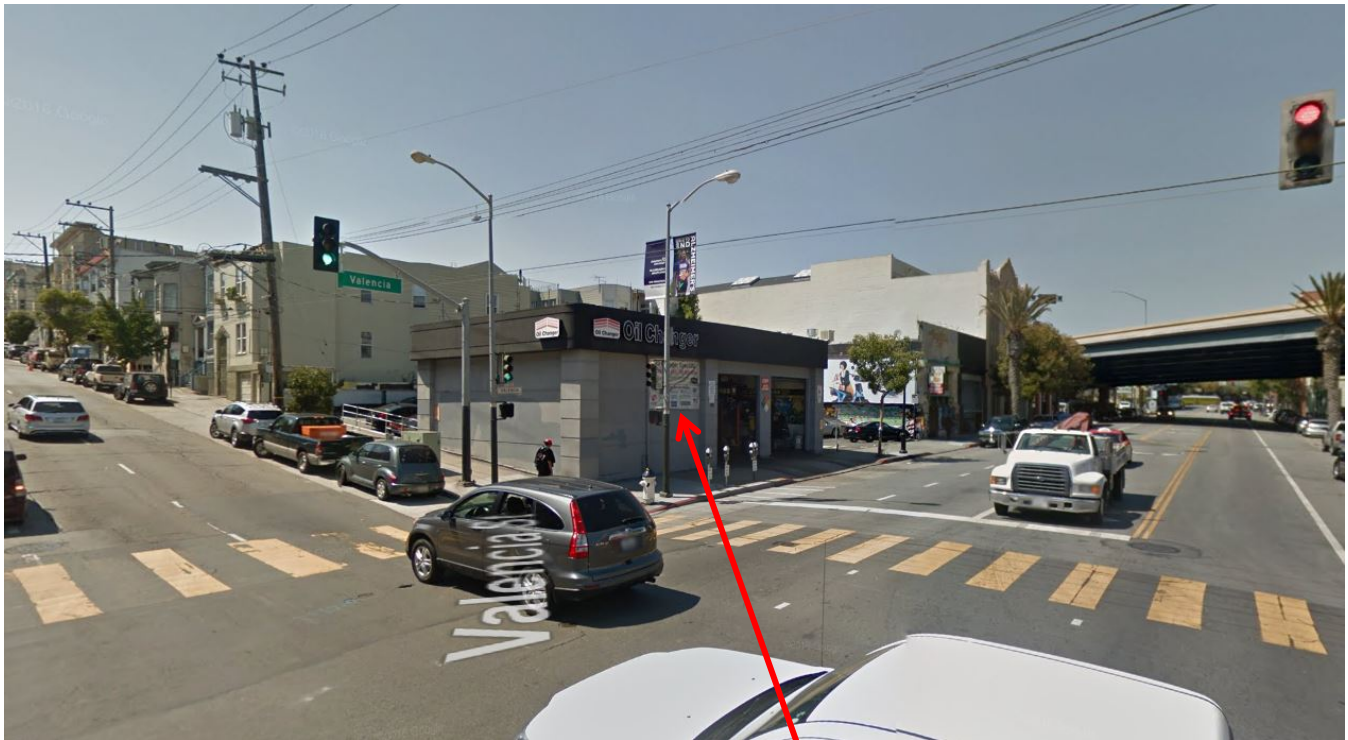
Discretionary Review Hearing
Case Number 2013.1458DRP, DRP-02
198 Valencia Street

Height and Bulk Map

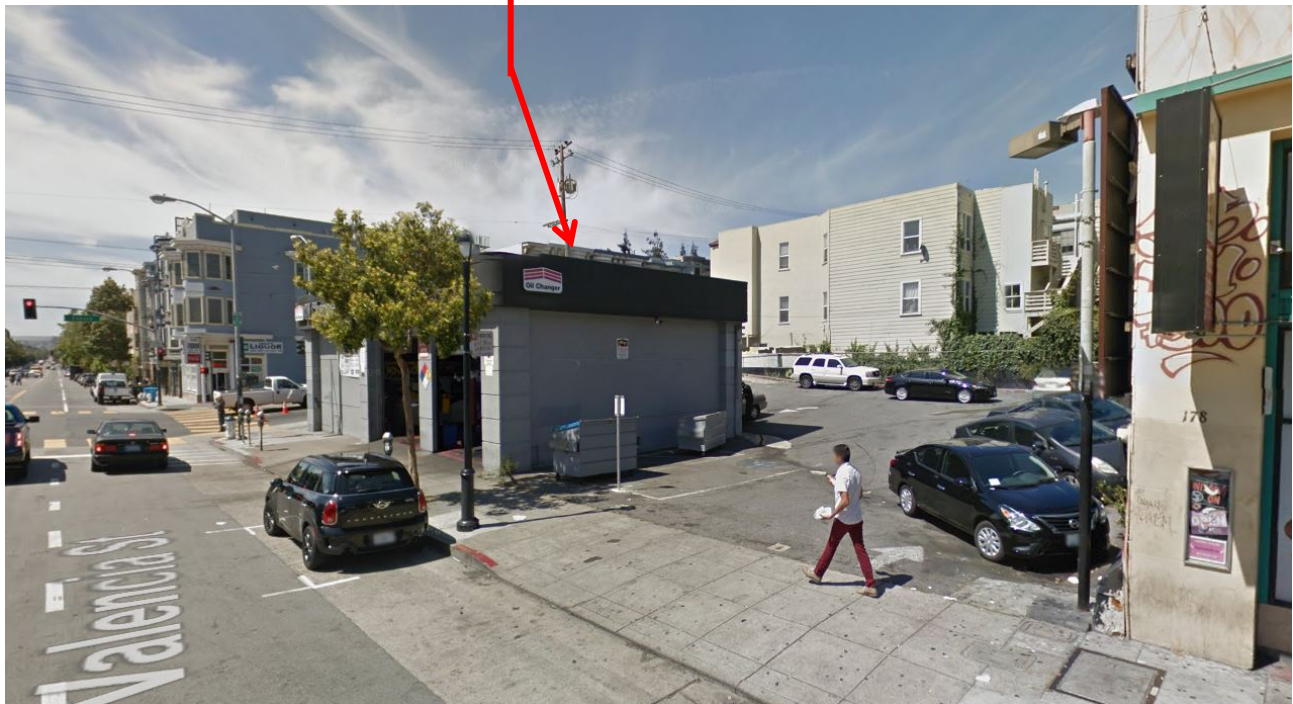


Discretionary Review Hearing
Case Number 2013.1458DRP, DRP-02
198 Valencia Street

Site Photo



SUBJECT PROPERTY
(VALENCIA STREET)



Discretionary Review Hearing
Case Number 2013.1458DRP, DRP-02
198 Valencia Street

Site Photo



SUBJECT PROPERTY
(DUBOCE AVENUE)



Discretionary Review Hearing
Case Number 2013.1458DRP, DRP-02
198 Valencia Street



SAN FRANCISCO PLANNING DEPARTMENT

1650 Mission Street Suite 400 San Francisco, CA 94103

NOTICE OF BUILDING PERMIT APPLICATION (SECTION 312)

On **August 6, 2014**, the Applicant named below filed Building Permit Application No. **2014.08.05.3094** with the City and County of San Francisco.

PROPERTY INFORMATION		APPLICANT INFORMATION	
Project Address:	198 Valencia Street	Applicant:	David Sternberg
Cross Street(s):	Duboce Ave	Address:	1331 Harrison Street
Block/Lot No.:	3502/108	City, State:	San Francisco, CA 94114
Zoning District(s):	NCT-3 / 50-X	Telephone:	(415) 531-8311

You are receiving this notice as a property owner or resident within 150 feet of the proposed project. You are not required to take any action. For more information about the proposed project, or to express concerns about the project, please contact the Applicant listed above or the Planner named below as soon as possible. If you believe that there are exceptional or extraordinary circumstances associated with the project, you may request the Planning Commission to use its discretionary powers to review this application at a public hearing. Applications requesting a Discretionary Review hearing must be filed during the 30-day review period, prior to the close of business on the Expiration Date shown below, or the next business day if that date is on a week-end or a legal holiday. If no Requests for Discretionary Review are filed, this project will be approved by the Planning Department after the Expiration Date.

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.

PROJECT SCOPE		
<input checked="" type="checkbox"/> Demolition	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Alteration
<input checked="" type="checkbox"/> Change of Use	<input type="checkbox"/> Façade Alteration(s)	<input type="checkbox"/> Front Addition
<input type="checkbox"/> Rear Addition	<input type="checkbox"/> Side Addition	<input type="checkbox"/> Vertical Addition
PROJECT FEATURES	EXISTING	PROPOSED
Building Use	Automotive Service Station	Residential and Commercial Retail
Front Setback	Approximately 1.75 feet (Valencia Street)	None
Side Setbacks	See Plans	None
Building Depth	Approximately 35 feet	90 feet
Rear Yard	Approximately 54 feet	22.5 feet
Building Height	Approximately 20 feet	55 feet
Number of Stories	1	5
Number of Dwelling Units	0	28
Number of Parking Spaces	6	19

PROJECT DESCRIPTION

The proposed project would demolish the existing one-story, 1,877 square foot automotive service station (dba Oil Changer) and construct a five-story, 55 foot tall, 33,795 gross square foot mixed-use building that includes two retail spaces totaling 6,269 square feet at the ground story and 28 residential units on the second through fifth stories. The proposed building would also include an approximately 16 foot tall elevator penthouse above roof, complies with all other applicable provisions of the Planning Code that includes the Market & Octavia Area Plan, and is consistent with the size and scale of the surrounding properties in the neighborhood. Please see attached plans.

The issuance of the building permit by the Department of Building Inspection or the Planning Commission project approval at a discretionary review hearing would constitute as the Approval Action for the project for the purposes of CEQA, pursuant to Section 31.04(h) of the San Francisco Administrative Code.

For more information, please contact Planning Department staff:

Planner: Jonathan DiSalvo
Telephone: (415) 575-9182
E-mail: jonathan.disalvo@sfgov.org

Notice Date: 7/26/16
Expiration Date: 8/24/16

APPLICATION FOR Discretionary Review

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
P/C

1. Owner/Applicant Information

DR APPLICANT'S NAME:
R.B.C.C., Inc. (dba Zeitgeist)

DR APPLICANT'S ADDRESS: 199 Valencia St. ZIP CODE: 94103 TELEPHONE: (415) 431-6891

PROPERTY OWNER WHO IS DOING THE PROJECT ON WHICH YOU ARE REQUESTING DISCRETIONARY REVIEW NAME:
David Sternberg for 198 Valencia St

ADDRESS: 1331 Harrison St. ZIP CODE: 94114 TELEPHONE: (415) 531-8311

CONTACT FOR DR APPLICATION:

Same as Above ☒

ADDRESS: ZIP CODE: TELEPHONE: ()

E-MAIL ADDRESS:

2. Location and Classification

STREET ADDRESS OF PROJECT: 198 Valencia St. ZIP CODE: 94103

CROSS STREETS: Duboce

ASSESSORS BLOCK/LOT:	LOT DIMENSIONS:	LOT AREA (SQ FT):	ZONING DISTRICT:	HEIGHT/BULK DISTRICT:
3502 / 108	100'X90'	9000	NCT-3/50-X	55'

3. Project Description

Please check all that apply

Change of Use ☒ Change of Hours ☐ New Construction ☐ Alterations ☐ Demolition ☒ Other ☐

Additions to Building: Rear ☐ Front ☐ Height ☐ Side Yard ☐
Oil Changer

Present or Previous Use: New Retail & Residential

Proposed Use: Building Permit Application No. 2014.08.05.3094

Date Filed: 8/6/14

4. Actions Prior to a Discretionary Review Request

Prior Action	YES	NO
Have you discussed this project with the permit applicant?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you discuss the project with the Planning Department permit review planner?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you participate in outside mediation on this case?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5. Changes Made to the Project as a Result of Mediation

If you have discussed the **project with the applicant, planning staff** or gone through mediation, please summarize the result, including **any changes there were made to the proposed project.**

n/a

Discretionary Review Request

In the space below and on separate paper, if necessary, please present facts sufficient to answer each question.

1. What are the reasons for requesting Discretionary Review? The project meets the minimum standards of the Planning Code. What are the exceptional and extraordinary circumstances that justify Discretionary Review of the project? How does the project conflict with the City's General Plan or the Planning Code's Priority Policies or Residential Design Guidelines? Please be specific and cite specific sections of the Residential Design Guidelines.

Please see attached pages.

2. The Residential Design Guidelines assume some impacts to be reasonable and expected as part of construction. Please explain how this project would cause unreasonable impacts. If you believe your property, the property of others or the neighborhood would be adversely affected, please state who would be affected, and how:

Please see attached pages.

3. What alternatives or changes to the proposed project, beyond the changes (if any) already made would respond to the exceptional and extraordinary circumstances and reduce the adverse effects noted above in question #1?

Please see attached pages.

1. What are the reasons for requesting DR? The project meets the minimum standards of the building code. What are the exceptional and extraordinary circumstances that justify DR of the project? How does the project conflict with the City's General Plan or the Planning Code's Priority Policies or Residential Design Guidelines? Please be specific and site specific sections of the residential design guidelines.

Reason for Discretionary Review: Zeitgeist dba RBCC Inc. at 199 Valencia Street (located directly east of subject site, on the NE corner of Valencia and Dubose) is requesting a discretionary review of the proposed development plans for the 198 Valencia Street site for the following reasons:

1) *Shading of Legacy Business' Unique Open Space for SF Residents:* Due to the height and size of the building, the proposed plan will negatively impact the Zeitgeist business (incorporated in 1977) through shadowing Zeitgeist's historic and cherished beer garden. The developers' shading study (conducted by PreVision Design in May of 2015) shows that the proposed building, designed at 5 stories and 55+ feet (71 feet height at the Valencia-street side), will shade our existing outdoor space for over 9 months of year (see Appendix B for exhibits of shading study). The beer garden at Zeitgeist is 2/3 of the total sq. ft. area of the business. Given the due West location of the 198 Valencia subject site to Zeitgeist, the shading coincides with our busiest hours (mid to late afternoon) of our busiest seasons (summer/fall), which will negatively impact the environment and experience of our large customer base. Currently, our sales drop precipitously as shade enters into the beer garden because without the sunshine the exterior temperatures become unpleasant. Thus, beyond diminishing the experience for our loyal customers, the new shading will impact 30% of our annual sales. This impact will result in a short run reduction of staff, but in the long run is highly likely to ultimately shutter the business as the sunny beer garden, its prime asset, will be lost.

2) *Shading of Public Park Spaces (SOMA West Dog Park and Skateboarding Park):* The shading studies of the 198 Valencia proposed building demonstrate that the building will additionally shade the two public park spaces, built in 2014. We believe the City spent millions of Dollars on the development of these parks. As the park parcels are owned by the State of California/Caltrain, a CEQA exemption was allowed. Regardless of technical property ownership (whether it belongs to the City, the State or a private entity), these areas are essential public open spaces for the residents within the vicinity of the 198 Valencia Property and they deserve to be protected as such.

Exceptional and Extraordinary Circumstances:

Zeitgeist's beer garden is a world famous San Francisco destination as numerous articles can attest (list attached as an Appendix C). Incorporated in 1977, Zeitgeist is a legacy business in San Francisco and is in the process of becoming part of the city's Legacy Business Registry – an outcome of Proposition J which passed by public vote in Nov 2015. In the ride-sharing company's 2015 Lyftie awards, Lyft listed Zeitgeist as its #1 bar drop-off location in San Francisco. As all of these factors can attest, San Franciscans, both current and past residents, and tourists from across the world love and cherish this unique open space and cultural relic. Although we understand and support the addition of more housing in SF, we believe this situation is exceptional and extraordinary – and measures should be taken to achieve a compromise to both allow for some new housing, but also to protect this cultural institution. It is up to city officials to make decisions that best match the public interest. We believe deeply - and are willing to show - that it is in San Francisco's public interest to protect the Zeitgeist business by reducing the height of this subject site by 2 stories rather than allowing this project to go through as proposed.

Conflicts with the City General Plan or the Planning Code's Priority Policies:

According to the City General Plan's stated objectives, the Planning Department is obligated to protect our business as a legacy institution in San Francisco while addressing the housing deficit. The following sections of the General Plan and Priority Policies require the Planning Commission to protect Zeitgeist and its open space and community facility that Zeitgeist provides for the residents of San Francisco:

Goals of the General Plan:

- *protection, preservation, and enhancement of the economic, social, cultural and esthetic values that establish the desirable quality and unique character of the city.*
- *improvement of the city as a place for living... by providing adequate open spaces and appropriate community facilities*

Priority Policies:

1. *That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such*

businesses enhanced: The 198 Valencia development would reduce employment at Zeitgeist (which currently employs nearly 50 people) and will not preserve Zeitgeist as a neighborhood-serving small business.

2. *That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods:* Zeitgeist's punk beer garden has unique character that should be conserved in order to preserve the cultural diversity of the Mission district.

More specifically, as part of the City's General Plan (Objective 4, Commerce and Industry Element Objective 4, Policy 4.5 states "*Care should be taken, however, to permit residential expansion in a way that will **not** cause eventual large scale displacement of the existing viable businesses whenever feasible.*" The 198 Valencia subject site directly violates this as it is likely to shutter the Zeitgeist business. The City's General Plan wishes to encourage development that manages, "*economic growth and change to ensure enhancement of the total city environment, maintaining a sound and diverse economic base and fiscal structure, and providing expanded employment opportunities for city residents, particularly those that are unemployed*" as a part of the Commerce and Industry. Our business contributes to the city plan in all of these ways; we are a viable, ever-changing business that adds to the financial success and cultural image of San Francisco that, of course, employs a variety of San Franciscans. In fact, many of these San Franciscans have worked here for more than 20 years.

Conflicts with Residential Design Guidelines:

The subject site sits in a Neighborhood Commercial District and therefore is not required to adhere to Residential Guidelines. If it were subject to the guidelines, the building would be violating the Residential Design Guidelines under 9 guidelines:

1. "Maintain light to adjacent properties by providing adequate setbacks (page 5)
2. "Treat the front setback so that it provides a pedestrian scale and enhances the street" (page 12).
3. "Design the scale of the building to be compatible with the height and depth of surrounding buildings" (page 23)
4. "Design the height and depth of the building to be compatible with the existing building scale at the street" (page 24).

5. "Design the building's proportions to be compatible with those found on surrounding buildings" (page 29)
6. "Design the building's architectural features to enhance the visual and architectural character of the neighborhood (page 31)
7. "Design stair penthouses to minimize their visibility from the street" (page 38)
8. "The type, finish and quality of a building's materials must be compatible with those used in the surrounding area" (page 47)
9. "All exposed walls must be covered and finished with quality materials that are compatible with the front façade and adjacent buildings" (page 48)

2. The residential design guidelines assume that all impacts are reasonable and expected as part of construction. Please explain how this project will not cause unreasonable impacts. If you believe your property, the property of others, is adversely affected, please state who would be adversely affected and how.

The construction process of 198 Valencia will impact our business as the noise creation from the building construction from 8:00 – 5:00 pm M-F will impact our early afternoon customer's experience of the beer garden. We anticipate a reduction in sales between 2 and 5 pm due to the construction activity.

3. What alternatives or changes to the proposed project, beyond the changes (if any) already made would respond to the exceptional and extraordinary circumstances and reduce the adverse effect, noted above in question #1?

Amendment to overall height: While the Notice of Building Permit Application received from the San Francisco Planning department lists that the proposed height of the building at 198 Valencia will be 55 feet, it is notable that the height of the building continues past the 55 feet to include a 16 foot elevator penthouse, for a total of 71 feet in height. We are concerned about the overall height and shadow cast and the privacy issues associated with the roof deck for our patrons.

We request that the developer and the planning department, not only consider a reduction in size and higher set-back for the roof-top deck, but also place limit on the overall height of the building. A reasonable compromise should be found to protect the viability of our business, the jobs of the people we employ, and a business that San Franciscans and visitors patronize. Our request is that the height limit be reduced to a

3-story building (which would match the height of the existing buildings in the neighborhood). Although a 3-story building will still have some shading on the beer garden, the impacts would be far less severe than currently proposed plan while still providing housing.

Interactions with the Building Planners thus far:

Members of our management team have reached out to the developers and the Planning Department regarding this project. A private meeting with the developers in our office May of 2016 to express our concerns about height and privacy issues. At that point, it was suggested that the access on the roof deck and the elevator penthouse would be pushed back to accommodate some of our concerns.

On July 6, 2016 we attended a community meeting at the Pizza Zone. We were able to view a new set of plans at that point. It did not appear that the changes discussed had been made.

A letter from the President and CEO of our company has been sent to Jonathan DiSalvo of the SF Planning Department regarding the project (Appendix A). Additionally, we have discussed the project with our district supervisor, David Campos, regarding the project. We are also reaching out to Scott Wiener, in whose district the proposed development is located.

RBCC Inc. dba "Zeitgeist"

199 Valencia Street
San Francisco, CA 94103

San Francisco Planning Department
Attn: Jonathan DiSalvo, Planner
1660 Mission Street
San Francisco, CA 94103

Email: Jonathan.Disalvo@sfgov.org
Ph: 415-575-9182

Date: August 1, 2016

**RE: Building Permit Application 2014.08.05.3094 – 198 Valencia Street
Planning Department Notice, dated July 26, 2016**

Dear Mr. DiSalvo,

I am the owner of Zeitgeist, the popular outdoor beer garden on 199 Valencia Street. We are located directly across Valencia Street east of the proposed development project at 198 Valencia Street.

I've been running Zeitgeist since the untimely 1998 death of its former owner, who first opened the bar the early 1970s. For nearly 5 decades, Zeitgeist has been an open, safe, and welcoming meeting place and cultural institution for all residents of San Francisco, regardless of their age, income level, or other characteristics. Zeitgeist has frequently been voted one of the best bars, not only at home in San Francisco, but throughout California and the USA. Ride sharing companies, including Lyft and Uber, recently identified Zeitgeist as their #1 rider destination in San Francisco. It deserves to be protected by the city as a legacy business. For your information, we include a few articles written by others about us.

Zeitgeist is one of the few locations where San Franciscans are allowed to drink alcohol outdoors in a protected private-public garden setting. Its success is based mostly on the long sun-exposure enjoyed by its customers in an environment they prize, one that has remained, as so many others have vanished.

Zeitgeist's very loyal customer community, its nearly 50 employees, and I as Zeitgeist's owner are gravely concerned that the proposed development project, as currently designed, will substantially and adversely affect Zeitgeist's operation and atmosphere. Consequently, we request that the project not be permitted without substantial modifications in order to mitigate the severe impacts on the neighborhood, Zeitgeist and its customers.

Most importantly, the building must not be approved at the proposed height, in order to **avoid shading** across the street. Per the developer's plans, the highest point of the building is more than 70 feet. tall, towering 2 stories above all of the other buildings within its vicinity. The developer recently shared their shading studies of the building with us. As the development is directly due west of Zeitgeist, it will effectively overshadow the beer garden for a significant amount of our late afternoon / early evening period across the year (see exhibits from the developer's shading study attached to this letter).

As you can imagine, our business is heavily weather and sunlight dependent. When the sun goes down, the temperature in our beer garden decreases substantially, which causes many visitors to leave soon

thereafter. We have analyzed the prospective shading impact to Zeitgeist's occupancy and business. The sales period impacted by the prospective shading currently represents 30% of our sales. In the short run, this shading would likely lead to an unavoidable reduction in our staff. In the long run, we may even have to shutter the business, if we can't make up those sales losses.

Beyond our business interests, we believe that many San Franciscans will stand behind us in our appeal to keep the sunshine in the beer garden. As one of the oldest communities in San Francisco, our support base is far-reaching and deeply committed. Our customers have expressed concerns about our **their loss of privacy** due to possible "roof-top gawkers" on the large deck facing Valencia Street, potential **noise, nuisance or other claims** against Zeitgeist by future owners/tenants of the new high-end residential units, and the entirely **inadequate parking** places offered by the proposed development. We share these concerns.

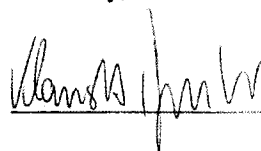
We understand the need for more housing within the city of San Francisco. Nonetheless, the plans for the 198 Valencia Street project represent a monstrously over-sized building, one that does not reference the other buildings in its vicinity, neither in proportion nor in aesthetic. In a community meeting on July 6, 2016, the project architect represented that several aspects of concern were dictated by the SF Planning Department, such as the size of the roof-top deck, including 2 elevator shafts, and the minimal parking places. He also acknowledged that his design goals were to maximize profitability to the real-estate investors rather than any neighborhood integration.

This letter is written to you per item 3. of the July 26, 2016 Notice's "General Information about Procedures", and we may consider it necessary to request a Discretionary Review by the Planning Commission. Planning principles require you to consider Zeitgeist a critical stakeholder within the negotiation of the final planning of this building. We would appreciate it if you would meet with us such that we explain our concerns in greater detail. Perhaps, an afternoon site visit at Zeitgeist would help clarify our concerns.

Concurrently to this request, we will be making our client base aware of the currently proposed building development and its impact to Zeitgeist and their beloved beer garden. This will allow for the residents of San Francisco the chance to understand the current proposal and express their support of our requests.

We look forward to working with you and performing our part in the planning and approval process. Thank you for your consideration.

Sincerely,



Klaus Burmeister
President
RBCC, Inc. d/b/a "Zeitgeist"
Email: Klaus@zeitgeistsf.com
Ph. 510-693-0069

Enclosures: Shading Study Excerpts
 Articles on Zeitgeist

APPENDIX – SHADING STUDY EXHIBITS OF 198 VALENCIA STREET PROJECT PROVIDED BY PREVISION DESIGN

Note that the shading studies were prepared on May 20, 2015 (but not provided to the Zeitgeist Management until June 2016 by Architect)

Exhibit A: Cover Page of STUDY. Rendering of the new building.

As you can see, the proposed building sits due west of the Zeitgeist property (ground level outlined in yellow, existing fence line and north wall outlined in orange). As you can see from this rendering alone, the new development's shadow will largely impact the beer garden.

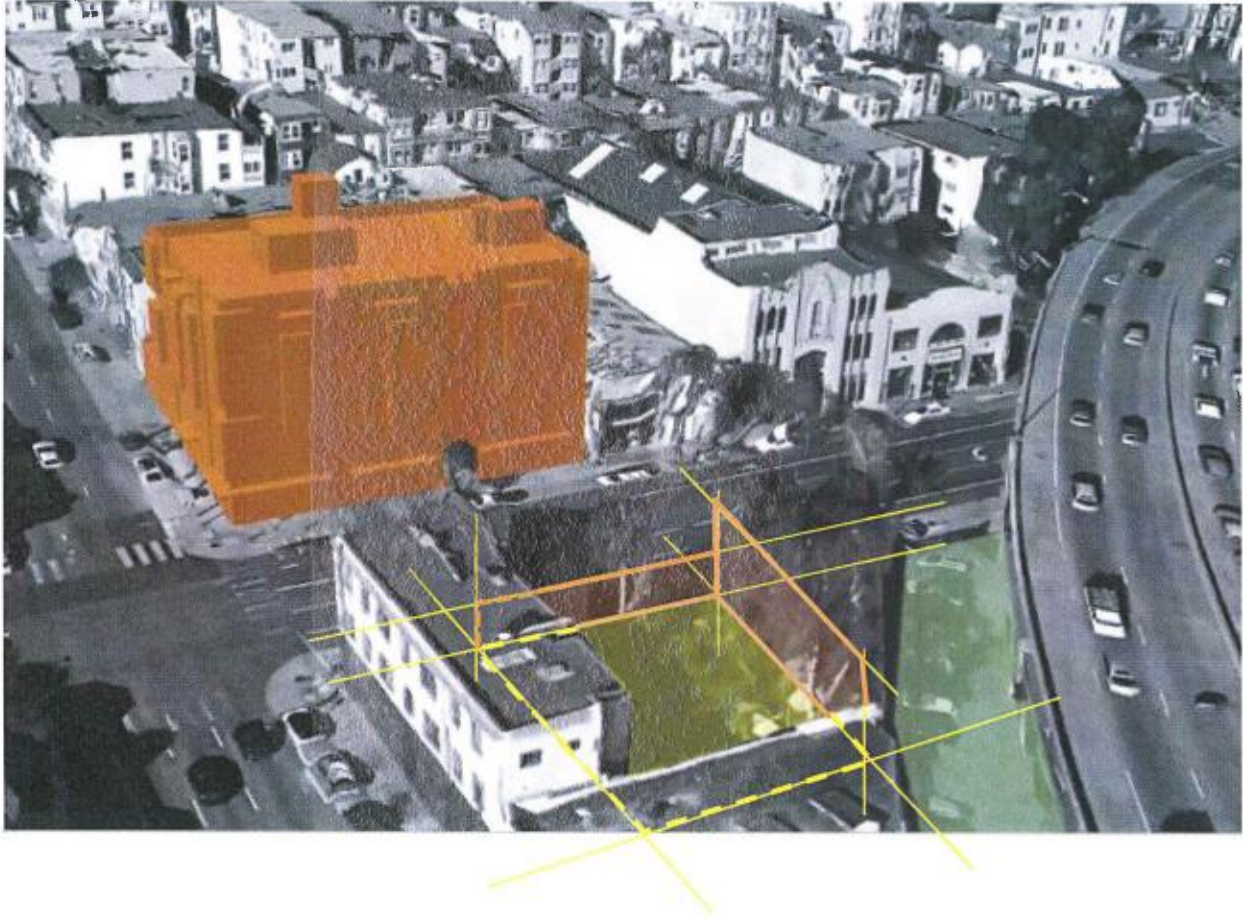


Exhibit B: Page 5 of Study. Plan View

Below, the beer garden area is highlighted in yellow for reference and the proposed development in orange.



Exhibit C: Page 19 of 3rd party Shading Study. As you can see, as outlined in red, the new development will add an entirely new shaded area covering 100% of the Zeitgeist beer garden area over the year.

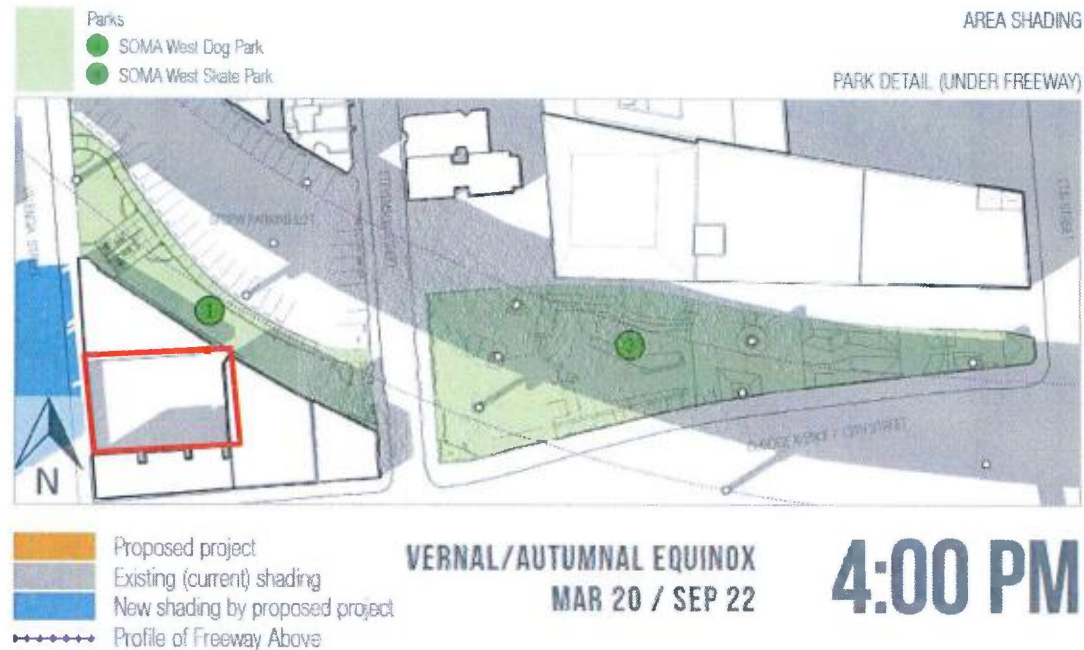
A1.1 198 VALENCIA SHADOW STUDY

Cumulative Extents of New Shading from Project



LOCATION/EXTENTS OF NEW SHADING
CAST BY PROJECT ON PARK ANNUALLY **FULL YEAR**

Exhibit D: Pages 46, 47, 48 and 49 of Shading Study. Autumn/Spring Impacts. As you see outlined in red, between 4 pm and 6:06 there is significant extra shading on the beer garden. This timing coincides with our peak business hours during the weekdays and weekends. August and September are Zeitgeist's peak business months of the year, thus this shading is highly problematic.



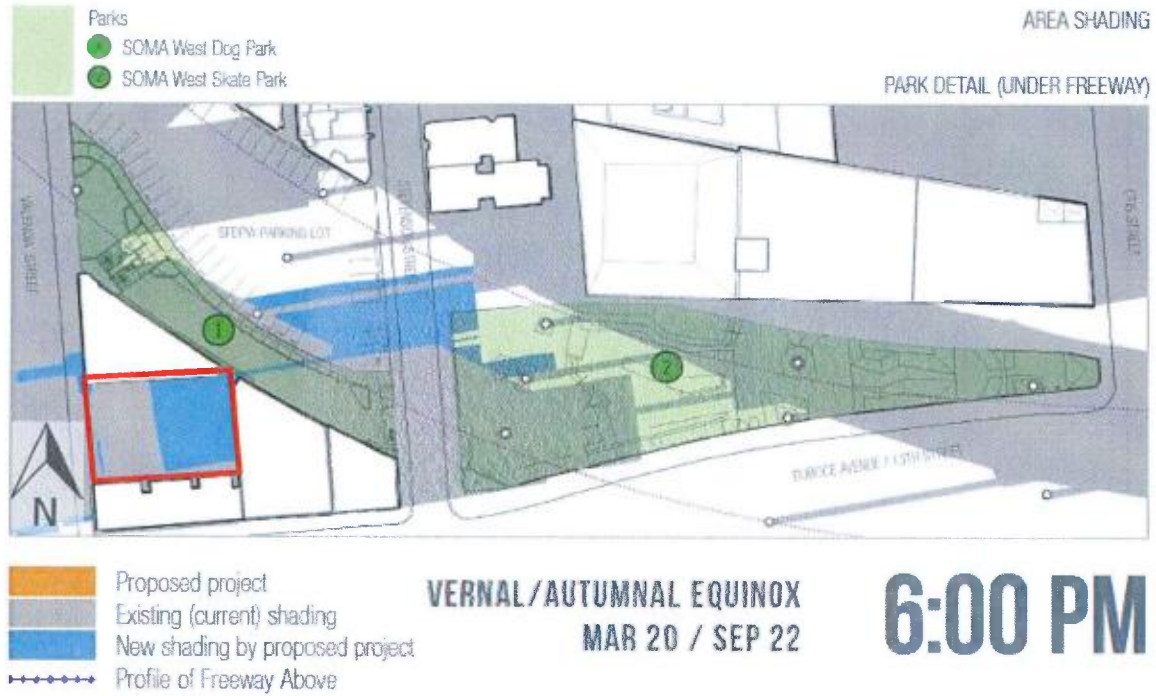
PREVISION DESIGN | 198 VALENCIA STREET SHADOW ANALYSIS REPORT | AD1 | MAY 20, 2015

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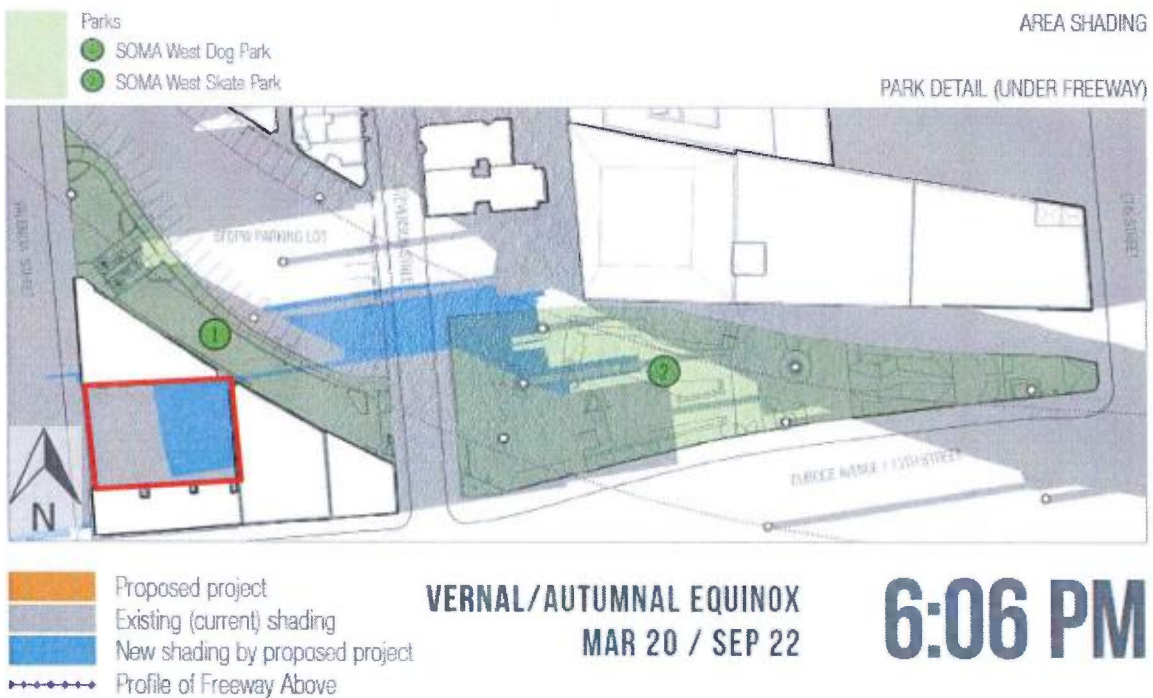
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Exhibit E: Reference Pages 33 – 34 of Shading Study. Summer Solstice. Note that on simulated date 6/21 the building will add additional shadowing to Zeitgeist from 6:00 through 7:35.

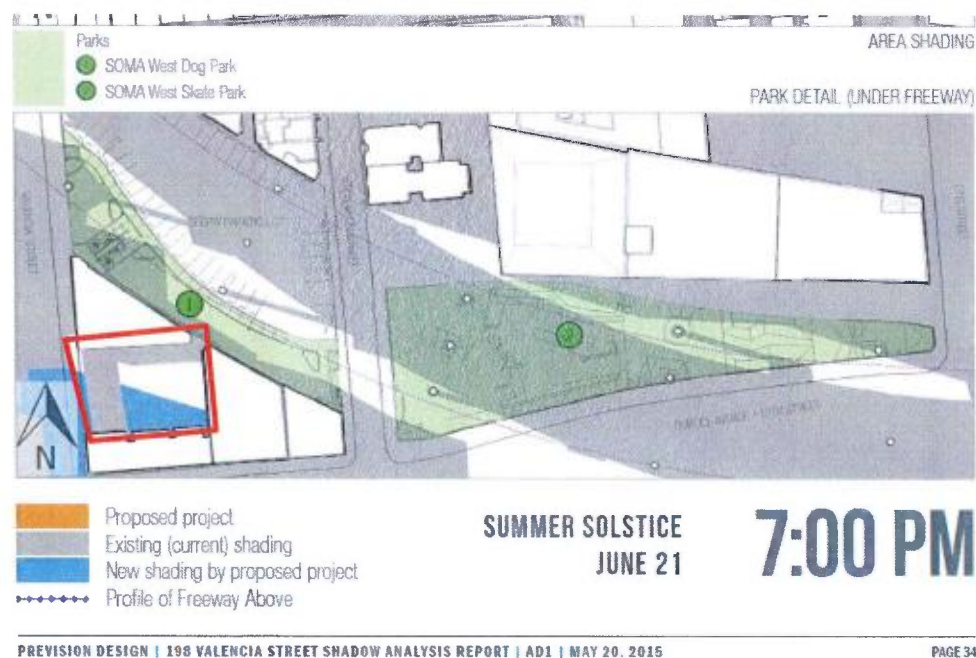
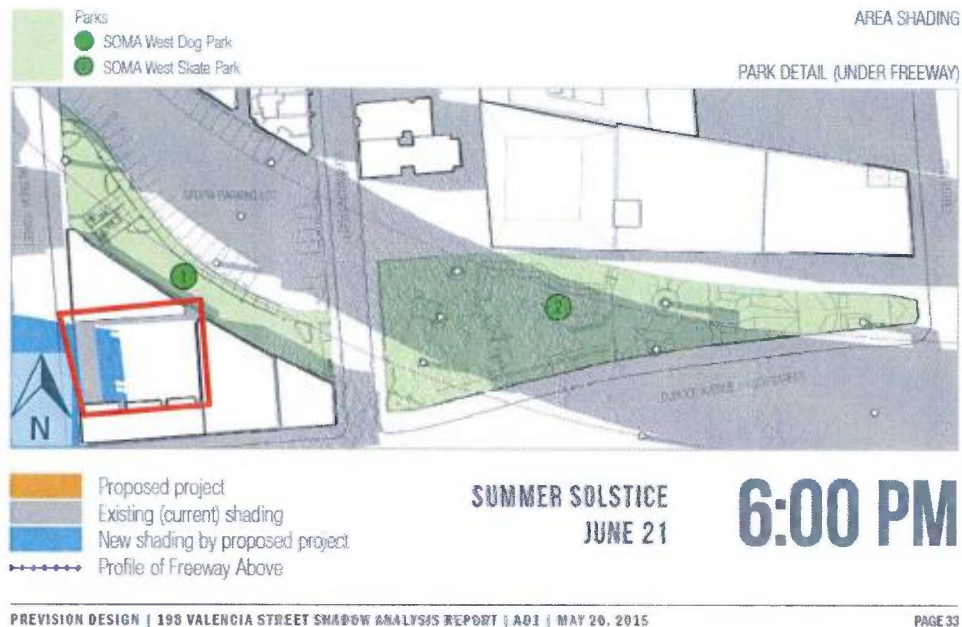


Exhibit F: Reference pages 58 and 59. Winter Solstice. Note that on simulated date 12/21 the building does not directly impact Zeitgeist. However, we do anticipate that given the movement of the sun's position, in both November and January, the small triangle at the 3 pm shading rendering below will be fully shaded. Winter is also the lowest sales period for Zeitgeist during the year.



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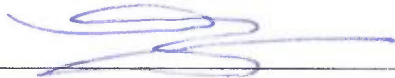
Beeradvocate. Zeitgeist. Aug 18 2016. <https://www.beeradvocate.com/beer/profile/10935/>

Applicant's Affidavit

Under penalty of perjury the following declarations are made:

- a: The undersigned is the owner or authorized agent of the owner of this property.
- b: The information presented is true and correct to the best of my knowledge.
- c: The other information or applications may be required.

Signature: _____



Date: _____

8/18/2016

Print name, and indicate whether owner, or authorized agent:

LARA BURMEISTER - V.P. of RBCC Inc.

Owner ☒ Authorized Agent (circle one)

Discretionary Review Application Submittal Checklist

Applications submitted to the Planning Department must be accompanied by this checklist and all required materials. The checklist is to be completed and **signed by the applicant or authorized agent**.

REQUIRED MATERIALS (please check correct column)	DR APPLICATION
Application, with all blanks completed	<input checked="" type="checkbox"/>
Address labels (original), if applicable	<input checked="" type="checkbox"/>
Address labels (copy of the above), if applicable	<input checked="" type="checkbox"/>
Photocopy of this completed application	<input checked="" type="checkbox"/>
Photographs that illustrate your concerns	<input checked="" type="checkbox"/>
Covenant or Deed Restrictions	<input checked="" type="checkbox"/>
Check payable to Planning Dept.	<input checked="" type="checkbox"/>
Letter of authorization for agent	<input checked="" type="checkbox"/>
Other: Section Plan, Detail drawings (i.e. windows, door entries, trim), Specifications (for cleaning, repair, etc.) and/or Product cut sheets for new elements (i.e. windows, doors)	<input checked="" type="checkbox"/>

NOTES:

☐ Required Material.

☒ Optional Material.

☐ Two sets of original labels and one copy of addresses of adjacent property owners and owners of property across street.

For Department Use Only

Application received by Planning Department:

By: N. Kline

Date: 8/18/16

RECEIVED

APPLICATION FOR
Discretionary Review

AUG 19 2016

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
P.O.

1. Owner/Applicant Information

DR APPLICANT'S NAME: Richard Krooth		
DR APPLICANT'S ADDRESS: 2518 Hill Court, Berkeley, CA.	ZIP CODE: 94708	TELEPHONE: (510) 841-4418
PROPERTY OWNER WHO IS DOING THE PROJECT ON WHICH YOU ARE REQUESTING DISCRETIONARY REVIEW NAME: David Sternberg		
ADDRESS: 1331 Harrison Street, San Francisco	ZIP CODE: 94114	TELEPHONE: (415) 531-8311
CONTACT FOR DR APPLICATION: Same as Above <input checked="" type="checkbox"/> AND		
ADDRESS: R Krooth Box 9515 Berkeley, CA.	ZIP CODE: 94709	TELEPHONE: () None
E-MAIL ADDRESS: RKrooth@GMAIL.COM		

2. Location and Classification

STREET ADDRESS OF PROJECT: 198 Valencia Street, San Francisco		ZIP CODE: 94103
CROSS STREETS: Duboce Avenue		
ASSESSORS BLOCK/LOT: 35021/08	LOT DIMENSIONS: 90' X Approx 37' X	LOT AREA (SQ FT): 33,745
ZONING DISTRICT: NCT-3/50X	HEIGHT/BULK DISTRICT: Approx. 20 Feet	

3. Project Description

Please check all that apply

Change of Use ☒ Change of Hours ☐ New Construction ☒ Alterations ☐ Demolition ☒ Other ☐Additions to Building: Rear ☐ Front ☐ Height ☒ Side Yard ☐

Present or Previous Use: Automotive Service Station

Proposed Use: Residential AND Commercial Retail

Building Permit Application No. 2014.08.05.3094

Date Filed: August 6, 2014

Discretionary Review Request

In the space below and on separate paper, if necessary, please present facts sufficient to answer each question.

1. What are the reasons for requesting Discretionary Review? The project meets the minimum standards of the Planning Code. What are the exceptional and extraordinary circumstances that justify Discretionary Review of the project? How does the project conflict with the City's General Plan or the Planning Code's Priority Policies or Residential Design Guidelines? Please be specific and site specific sections of the Residential Design Guidelines.

Please See Attached: 198 Valencia Street, S.F.
Pages 1 to 8

2. The Residential Design Guidelines assume some impacts to be reasonable and expected as part of construction. Please explain how this project would cause unreasonable impacts. If you believe your property, the property of others or the neighborhood would be adversely affected, please state who would be affected, and how:

Please See Attached: 198 Valencia Street, S.F.
Pages 9 to 10

3. What alternatives or changes to the proposed project, beyond the changes (if any) already made would respond to the exceptional and extraordinary circumstances and reduce the adverse effects noted above in question #1?

Please See Attached: 198 Valencia Street, S.F.
Pages 11 to 12

4. Actions Prior to a Discretionary Review Request

Prior Action	YES	NO
Have you discussed this project with the permit applicant?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you discuss the project with the Planning Department permit review planner?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did you participate in outside mediation on this case?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Date to Be Set by Mediator

5. Changes Made to the Project as a Result of Mediation

If you have discussed the project with the applicant, planning staff or gone through mediation, please summarize the result, including any changes there were made to the proposed project.

- ① No changes yet made to proposed project
- ③ DR changes proposed by DR Applicant Richard Krooth
at Attached 198 Valencia Street, S.F.
Pages 8 to 10 Rejected by Applicant David Sternberg
For Building Permit No. 2014.08.05.3094

Applicant's Affidavit

Under penalty of perjury the following declarations are made:

- a: The undersigned is the owner or authorized agent of the owner of this property.
- b: The information presented is true and correct to the best of my knowledge.
- c: The other information or applications may be required.

Signature: *Richard Krooth*
Juris Doctor, PhD, Research Assoc
University of CA, Santa Cruz

Date: *August 19, 2016*

Print name, and indicate whether owner, or authorized agent:

Richard Krooth
☒ Owner ☐ Authorized Agent (circle one)

Discretionary Review Application Submittal Checklist

Applications submitted to the Planning Department must be accompanied by this checklist and all required materials. The checklist is to be completed and **signed by the applicant or authorized agent.**

REQUIRED MATERIALS (please check correct column)	DR APPLICATION
Application, with all blanks completed	<input checked="" type="checkbox"/>
Address labels (original), if applicable	<input checked="" type="checkbox"/>
Address labels (copy of the above), if applicable	<input type="checkbox"/>
Photocopy of this completed application	<input checked="" type="checkbox"/>
Photographs that illustrate your concerns	<input checked="" type="checkbox"/>
Covenant or Deed Restrictions	<input checked="" type="checkbox"/>
Check payable to Planning Dept.	<input checked="" type="checkbox"/>
Letter of authorization for agent	<input type="checkbox"/>
Other: Section Plan, Detail drawings (i.e. windows, door entries, trim), Specifications (for cleaning, repair, etc.) and/or Product cut sheets for new elements (i.e. windows, doors)	<input checked="" type="checkbox"/>

NOTES:
☐ Required Material.
☒ Optional Material.
☐ Two sets of original labels and one copy of addresses of adjacent property owners and owners of property across street.

Richard Roth August 19, 2016

For Department Use Only
Application received by Planning Department:

By: _____ Date: _____

198 Valencia Street, San Francisco

#1 Facts and Building Code Provisions Justifying
Discretionary Review

(a) The proposed project is to be located on a tightly-packed 33,745 square ft. lot area with an upward scale 55.5 ft. high and another 16 ft. elevator penthouse above roof level. It is not consistent with the visible character of the size of the neighborhood houses and lots. The project violates the Residential Design Guidelines and CEQA requirements for access to light, air and view by Krooth's 118-120 Duboce Ave. property and other adjacent residential properties. [Planning Code's Priority Policies and Residential Design Guidelines [Sec. 505 [a] [3]. 505 [b] [3] and 505 [c] [3]]; CEQA regulations, section 31.04 (h), impacting the entire Market and Octavia Plan area.] The project thus must be denied approval.

(b) The planned project 55.5 foot high structure with the penthouse will place Krooth's adjacent

198 Valencia Street, San Francisco

two story building located at 118-120 Duboce in permanent shadows, dark and dank; and without a view from any of its east-facing windows, blocking out sunlight and fresh air. As well, to a lesser degree, other adjacent surrounding properties 150-feet away from the planned structure will lose sunlight, fresh air and view. [Planning Code's Priority Policies and Residential Design Guidelines [Sec. 505 [a] [3]. 505 [b] [3] and 505 [c] [3]] Again, the project must be denied approval.

(c) The proposed project provides no stated front setbacks on Eastern side of the structure or on the southern side; and at best will provide a small setback from the western property line with the Krooth's building. These project shortcomings violate the city's General Plan and the Planning Code's Priority Policies and Residential Design Guidelines [Sec. 505 [a] [3]. 505 [b] [3] and 505 [c] [3] emphasizing the intent and policy purpose of

198 Valencia Street, San Francisco

such provisions that today are in force. The Building Department elaborates: "To a large degree, the character of San Francisco is defined by the visual quality of its neighborhoods. A single building out of context with its surroundings can have a remarkably disruptive effect on the visual character of a place. It affects nearby buildings, the streetscape, and, if repeated often enough, the image of the city as a whole." The origin of such a policy came into force 30 years ago. "Concern for the visual quality of the neighborhoods gave rise, in part, to the November 1, 1986 voter initiative known as Proposition M, which among things, established as a priority policy, that existing neighborhood quality be conserved and protected. The Neighborhood Conservation Interim Controls were adopted in September 1988, and require the City Planning Department to use residential design

198 Valencia Street, San Francisco

guidelines in its review of residential building permit applications. The purpose of these Residential Design Guidelines is to assist in determining whether a new building, or the expansion of an existing one, is visually compatible with the character of its neighborhoods". Thus: "The Planning and Building Code establish basic limitations on the size of a building. A building built out of legal limits [of 40 ft. height, that] establishes height and setbacks and yards, may, however, resulting [in] a building which is not compatible with the character of the neighborhood."

(d) This is precisely what the proposed building project does; and Krooth's position is that the Residential Design Guidelines should be strictly enforced. "The interim controls establish a three-tier system of review based on the extent to which the size of a new residential building or an enlargement of an existing building deviates from the size of surrounding buildings, and particularly, the

198 Valencia Street, San Francisco

immediately adjacent buildings. The greater the deviation, the more extensive is the notice that must be given to other property owners, and the greater is the review by the Department of City Planning and the City Planning Commission of the appropriateness of the overall size of the new or enlarged structure. The interim controls are contained in Article 5 of the Planning Code which should be consulted for details.” [Residential Design Guidelines, Section II “neighborhood character”; and Section III “compatibility of elements of design for new buildings compatible with neighborhood character.”]

(e) This means there must be compatibility of the new ~~bus~~ building project with the visual, aesthetic, and scale of the collection of other buildings in the same vicinity on both sides of the street in which the project is located — so that the block-face of the row of front facades facing the street is considered

198 Valencia Street, San Francisco

for the length of one block. [Residential Design Guidelines, Section II. Neighborhood Character, ‘Block-face’] The proposed project does not meet this compatibility standard on the block-face of the 100 block of Duboce Street [photographs to be submitted at hearing]. On the 19th-20th side of the 198 Valencia Street project-address, traffic congestion, rather than block-face design is the major problem of the proposed project’s compatibility with street lights that are not observed during a.m. and p.m. rush-hour — creating dangerous conditions, with at least one accident every week, and dangers at pedestrian crossings. There are profound risks to Krooth’s blind tenant living in an apartment at 118 Duboce Ave. as she walks with assistance from her seeing-eye dog, and Krooth’s other tenants riding their bikes and shopping in the area. The proposed project would only lead to deteriorated conditions by building 19 proposed parking spaces for vehicles entering the street; 28 dwelling units of possible bicycle riders; five stores with no setbacks on the front Valencia Street or on Duboce

198 Valencia Street, San Francisco

Avenue; and 22.5 feet rear yard possibly for parking. Also for all these reasons the project should be denied approval.

(f) Krooth's priorities include mitigation of damage and waste from the proposed project to their building or injury to their tenants. David Sternberg, is the property owner for the project. He also is part of the building financing group, a limited liability corporation composed for four other limited liability corporations. He told Richard Krooth on August 15,

2 0 1 6 a t 9 :

55 a.m. that his group will not provide reimbursement to Richard and Ann Krooth for property damage to their building, including subsidence and collapse, caused by their construction; nor liability to Krooth's tenants for injury or death thereby caused; nor for rents lost if Krooth's tenants under lease are forced to move because of construction impositions. An exceptional burden will accordingly be unjustly

198 Valencia Street, San Francisco

imposed on Krooths and their tenants, whose hardships should be mitigated by denying permits to proceed with the project development. For these and other reasons already stated, the project must be denied approval.

198 Valencia Street, San Francisco

#2. Adverse effects, unreasonably imposed during estimated two-year period of proposed construction, would include:

(a) Losses to Richard and Ann Krooth's residential building, of 1906 vintage, lacking retrofitting for earthquakes, subsidence or liquefaction caused by the Applicant David Sternberg's construction project; by his companies' disturbances driving steel piles into landfill or other subterrains; for damage Krooth's building siding, recent 2014 painting outside and inside; and their fencing, window and for garage damage. No financial bonding or insurance has yet been made for such protection of Krooths by Applicant for building permit.

(b) Potential losses to Krooth tenants include unreasonable decibel levels from construction noise above levels required for tranquil living from 8 a.m. to 5 p.m. or longer; dangers from construction cluttered

198 Valencia, San Francisco

sidewalks for all Krooth tenants, especially Krooth's blind tenant and her guide dog; blockage of garage ingress and egress; unmitigated fouling the air due to gases and debris from construction in violation of CEQA regulations section 31.04 (h), impacting the entire Market and Octavia Plan area.

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#3. Alternatives and Possible Changes to Proposed Project's Adverse Effects listed in #1

- (a) Limit the Applicant's proposed building height to two stories, securing Krooth's two story building; while also maintaining levels of CEQA requirements regard access to United-Nations-requiring oxygenated air quality of 17%-to-20% of air molecules.
- (b) Secure Krooth's right to access to full sunlight without shadows from proposed structure during all seasonal variations.
- (c) Enforcing Applicant's required use of netting and other protective measures as shields from excess construction gasses and particulate matter during demolition and building operations.
- (d) Providing limits on Applicant's construction, blocking windows of any development or door frames of any development overhanging legally-required setback from property line with Krooth's building.

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- (e) Establishing of setback requirements on the Southern Duboce frontage of Applicant's building structure to at least 25 ft.; on the Frontal Eastern side of Applicant's Valencia building structure to 25 ft; and from the property line with Krooth building to 40 feet to secure both the Krooth structure and their tenants.
- (f) City Planning Code Policies need to set-up for police-provided security from Applicant or his agents deploying telephone and other harassments against Krooths or their Tenants; as well as against Applicant's or his agents' threats and injury to Krooths or their Tenants during demolition of the existing one-story Automotive Service Station and the Applicant's construction of a (Krooth demanded) restrictively-sized two-story structure of 33,795 square feet with mixed residential/commercial use.

RESPONSE TO DISCRETIONARY REVIEW (DRP)



**San Francisco
Planning**

SAN FRANCISCO PLANNING DEPARTMENT
1650 MISSION STREET, SUITE 400
SAN FRANCISCO, CA 94103-2479
MAIN: (415) 558-6378 SFPLANNING.ORG

Project Information

Property Address: 198 Valencia

Zip Code: 94103

Building Permit Application(s): 201408053094 (new bldg); 201408113517 (demo)

Record Number: 2013.1458DRP/2013.1458DRP-02 Assigned Planner: Jonathan DiSalvo

Project Sponsor

Name: David Sternberg

Phone: (415) 882-9783

Email: dsternberg@sternbergbenjamin.com

Required Questions

1. Given the concerns of the DR requester and other concerned parties, why do you feel your proposed project should be approved? (If you are not aware of the issues of concern to the DR requester, please meet the DR requester in addition to reviewing the attached DR application.)

See attached.

2. What alternatives or changes to the proposed project are you willing to make in order to address the concerns of the DR requester and other concerned parties? If you have already changed the project to meet neighborhood concerns, please explain those changes and indicate whether they were made before or after filing your application with the City.

See attached.

3. If you are not willing to change the proposed project or pursue other alternatives, please state why you feel that your project would not have any adverse effect on the surrounding properties. Include an explanation of your needs for space or other personal requirements that prevent you from making the changes requested by the DR requester.

See attached.

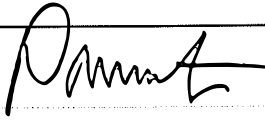
Project Features

Please provide the following information about the project for both the existing and proposed features. **Please attach an additional sheet with project features that are not included in this table.**

	EXISTING	PROPOSED
Dwelling Units (only one kitchen per unit - additional kitchens count as additional units)		28
Occupied Stories (all levels with habitable rooms)	1	5
Basement Levels (may include garage or windowless storage rooms)		1
Parking Spaces (Off-Street)		19
Bedrooms		40
Height		55' + 16' penthouse
Building Depth		90'
Rental Value (monthly)		N/A
Property Value		N/A

I attest that the above information is true to the best of my knowledge.

Signature:



Date:

Printed Name: David Sternberg

- ☐ Property Owner
☒ Authorized Agent

If you have any additional information that is not covered by this application, please feel free to attach additional sheets to this form.

1. Given the concerns of the DR requester and other concerned parties, why do you feel your proposed project should be approved?

The proposed project should be approved because it is consistent with the site's zoning, development standards and height limits. It will provide 28-1 and 2 bedroom units at the corner of Valencia and Duboce including 4 BMR units. Rezoned to NCT-3 and a 50-X height and bulk limit under the Market and Octavia Plan, the project will provide much needed housing in a transit rich neighborhood. Given the proximity to the entrance to I-80, the project also includes 19 off-street parking spaces that are permitted as of right under Table 151.1, including 14 off-street residential parking spaces at a parking ratio of .50, and 5 spaces available for retail use. To encourage bicycles as the primary travel mode, the project provides 28 Class 1 bicycle parking spaces in the parking garage and 4 Class 2 spaces at the corner of Valencia and Duboce. Retaining the ground floor commercial pattern of the Valencia corridor, the project proposes two retail spaces at the ground floor for a total of 6,269 sf.

The DR requester is Zeitgeist, a bar located across the street at the northeast corner of Valencia and Duboce, which is directly across Valencia Street from the proposed project. The property lines of the two buildings are 82.5' apart.

Zeitgeist's DR request is based on an unusual premise. It claims that the project will create significant new shadows on its beer garden¹ at the northwest corner of its site that would shade their "existing outdoor space for over 9 months of the year." As a direct result of that undefined shadow, Zeitgeist claims that 30% of its sales "would be impacted" during the period. It then concludes without any substantiation that a significant number of employees would need to be laid off as a result of this loss of business. Zeitgeist also bases its DR request on a concern that its patrons will experience a loss of privacy from the residents that will be using the roof deck on the new building.

A. There is no direct correlation between the remote possibility of increased shading due solely to the project and the loss or reduction of Zeitgeist's business revenues.

Small, neighborhood businesses throughout the City have weathered the effects of construction on nearby private parcels or the City's ROW for years. Seldom do businesses claim with certainty that they will go out of business before the construction even begins or the building is operational. Yet, that is precisely what Zeitgeist is doing. If every business that was set back from a proposed new building by 4 lanes of traffic and 82.5' sought DR to redesign or reduce the project density or height, there would be many more frivolous DRs filed. That is why the Commission's taking of DR requires a substantial showing of the extraordinary circumstances should be supported by facts that are likely occur, not those that *are speculative*.² Sites along Valencia Street for several blocks are zoned 50' and 55'. There is thus nothing extraordinary or unusual about the site's 50' height.³

¹ According to Zeitgeist, the beer garden is over 2/3 of its business area, or 1,319 sf.

² Here, Zeitgeist asks the Commission to determine both that shadowing from properties which had their height limits increased to enable increased housing production is extraordinary and that, as a result, those increased height limits should be undone through DR.

³ See Exhibit A.

In its DR request, Zeitgeist offers no hard factual data of the correlation between shadow being cast on its beer garden and the resulting “loss of 30% of its business revenue”. That is because there is none to provide, absent a crystal ball or psychic abilities. Zeitgeist is claiming that there is a direct cause and effect between possible new shadows and its business revenues, which requires the DR to be granted to limit the business’ losses. It is seldom that the Commission is asked to evaluate a DR request on facts based on this much uncertainty or difficulty in assessing a cause and effect.

Moreover, there are numerous other bars in the Bay Area with outdoor drinking spaces that thrive in the Bay Area extremes of fog and rain.⁴ Based on these businesses, it is clearly not certain that Zeitgeist will fail because the beer garden is subject to more shadow. Patrons adjust and adapt to changing conditions. If Zeitgeist has the committed following it does, it would take much more than some remotely possible shadows to stop patrons from coming there. There are also other more likely sources of natural and man-made conditions that could result in Zeitgeist’s business failure. If the drought ends and rains fall for 6 months of the year, Zeitgeist would also suffer lost business in the beer garden. Given all the other ways that a business can fail or have to reduce staff-ranging from macroeconomic to business-specific conditions- there is hardly any evidence Zeitgeist can provide to support a link between shadows and “going under” before the building has even been built.

Given this lack of statistical significance, Zeitgeist also fails to mention the site’s existing conditions that currently and have over time contributed to and cause significant shading on the beer garden. There is a large billboard on the building that faces south, thereby blocking most of the southern light onto the site. There are also 2 trees with large canopies facing Valencia which blocks out the western light.⁵ Additional foliage that blocks light to the beer garden includes 2 trees in the beer garden: one in the middle and one at the rear. Taken together, these existing and longstanding features are very likely the primary cause of loss of sunlight in the beer garden.

Based on the vitality and longevity of other beer gardens in the Bay Area, it is hard to imagine how Zeitgeist can justify reducing the height of the building without submitting any credible evidence to show that when the shading occurs, there is a measurable loss of outdoor business. This project will not cause the type of construction impacts on Zeitgeist’s business which may, at worst, result in a temporary loss of business. The project is a mixed use building that is complying with the existing height limit, adopted in 2008. If Zeitgeist owners were concerned about the potential impacts on its business from the right to build to that height limit on the project site, they could have raised those concerns in 2008. Now, most of the sites surrounding Zeitgeist are zoned to 50’ or 55’.

Thus, in light the speculative nature of Zeitgeist’s conclusions, the potential loss of business revenue at some unknown time in the future cannot and should not be the basis for DR. Based on the above, Zeitgeist has not offered any justification for the Planning Commission to exercise its Discretionary Review powers. There is no certainty about either the extent or impact

⁴ See Exhibit B.

⁵ See Exhibit C.

of potential shadowing or that Zeitgeist's business revenues will precipitously drop as a result of that or some other unknown, unforeseen cause related to the building.

B. Why the project should be approved as proposed.

The project site is currently under-utilized. There remains a great demand for higher density, smaller units, especially at transit-rich locations like this (within walking distance of Mission and Market Streets). The redevelopment of the project site from an auto maintenance facility to a 5 story building with 28 units, including 4 BMR units, 2-ground floor retail spaces and 19 off-street parking spaces (14 for residential use and 5 for the retail use). The building meets Planning Code requirements for private open space and rear yard. As such, it is the type of development intended by the Market Octavia Area Plan. The project will activate the street corner and provide numerous buyers/customers for the many nearby small businesses, including Zeitgeist. For these reasons, the project should be approved as proposed.

2. What alternatives or changes to the proposed project are you willing to make in order to address the concerns of the DR requester and other concerned parties?

Zeitgeist is asking the Commission to take DR to remove the top 2 stories of the building. They are also asking that the roof deck be setback further to minimize the loss of privacy to its customers by residents' use of the roof deck. Lastly, it erroneously believes that the Planning Commission has no discretion under the General Plan, and must take DR to reduce the height in order to prevent its displacement because it is a legacy business.⁶

The project sponsor is willing to reduce the 4' parapet on the Valencia elevation by 3.0' subject to the Planning Department's approval of this change to the aesthetics of a prominent corner building. This parapet reduction will seriously affect the design of the building façade. The reduction in shadow would be minimal with the parapet reduction of 3.0', when compared to the huge impact to the design of the Valencia façade. The massing of the façade relies on the 4' tall parapet to help set off the aesthetics of the bay windows. As a result of a May, 2016 meeting with Zeitgeist representatives, the project sponsors set the roof deck back an additional 5' from the eastern edge of the building to address Zeitgeist's height and privacy concerns for a total 8' setback.

A. The Housing Accountability Act prevents the Commission from using DR to reduce the building height by 2 stories.

Government Code Section 65589.5 (known as the Housing Accountability Act, "HAA") provides that the "when a proposed housing development project complies with applicable, objective general plan and zoning standards and criteria . . ." the Commission cannot

⁶ There is no such obligation under either Prop. J, which created legacy businesses or the General Plan. Since the General Plan was adopted years before Prop. J, there was no concept of a legacy business considered in the General Plan. The cited General Plan provision applies only if the business were being physically displaced from their location. That would occur only if its building were being demolished or redeveloped. That is not the case here.

“disapprove the project or [] approve it at a lower density” except by making written findings . . . that both of the following conditions exist”:⁷

- (1) The housing development project would have a specific, adverse impact upon the public health or safety unless the project is disapproved or approved upon the condition that the project be developed at a lower density. As used in this paragraph, a “specific, adverse impact” means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.
- (2) There is no feasible method to satisfactorily mitigate or avoid the adverse impact . . . other than the disapproval of the housing development project or the approval of the project upon the condition that it be developed at a lower density.

Emphases added.

Zeitgeist has requested the Commission take DR to reduce the building to 3 stories. The HAA would prohibit the Commission from reducing the project height and density unless it can make the required findings. In order to reduce the height and density, the Commission would have to find that the proposed height would cause a “specific adverse impact upon the public health or safety.” That term is defined in the HAA as a “significant, quantifiable, direct and unavoidable impact . . . of written public health or safety standards.” Zeitgeist is seeking the height reduction to reduce future shadow impacts on its beer garden. Shadow impacts on a beer garden are not regulated or governed by “public health and safety standards.” There are no public health and safety considerations for City or state regulators for the amount of shadow on private spaces for the consumption of alcohol. Thus, no findings in compliance with the HAA can be made to justify the reduction of the building height.

The HAA makes clear that the Commission may approve the project at 3 stories or disapprove it at 5 stories only in very limited circumstances. None of the facts here fall within the required HAA standards. Accordingly, under the HAA, the Commission is precluded from reducing the project height or disapproving the project by eliminating the top 2 stories.

B. Zeitgeist requests that the roof deck be set back to avoid a “loss of privacy” by its patrons.

The roof deck on the proposed project is set back 8’ from the building’s edge over Valencia Street. With a property line to properly distance of 82.5’, this would put the roof deck at over 100’. Even with a powerful telescope lens and some diligence, it would be extremely difficult for someone to peer into the beer garden at a particular person or persons. There are 2 trees with large canopies facing Valencia which screens views from the roof deck into the beer garden. Moreover, even if there were views into the beer garden, the patrons’ privacy is not protected. After all, they are engaging in very public activities by being at the bar, which is why

⁷ See California Government Code Section 65589.5(j).

people go to bars. This potential concern is without merit. There are no further changes that could be made to the project to make the bar patrons feel more secure about their privacy.

C. The project sponsor is willing to reduce the 4' parapet on the Valencia Street frontage by 3.0'.

The 4' parapet on the Valencia Street elevation can be reduced under the SF Building Code by 3.0', subject to Planning Department review and approval of the effect on the design. While doing so will change the design on the eastern elevation of the building, this may result in lessening unspecified shadows onto the beer garden.

3. *If you are not willing to change the proposed project or pursue other alternatives, please state why you feel that your project would not have any adverse effect on the surrounding properties. Include an explanation of your needs for space or other personal requirements that prevent you from making the changes requested by the DR requester.*

In order to address Zeitgeist's allegations regarding shadow impacts on its beer garden, the project sponsor is willing to reduce the 4' parapet on the Valencia elevation by 3.0' subject to the Planning Department's approval of this change to the aesthetics of a prominent corner building. As a result of a May, 2016 meeting with Zeitgeist representatives, the project sponsors set the roof deck back 8' from the eastern edge of the building in response to Zeitgeist's height and privacy concerns for a total 8' setback. Zeitgeist's request for a 3-story building instead of the proposed 5 stories would result in the loss of 14 1-and 2-bedroom units and 2-on-site BMR units. This reduction is not permitted under the HAA. Zeitgeist has not suggested any additional project modifications or alternatives.

The potential impacts identified by Zeitgeist are inherently speculative. It cannot show a definitive correlation between alleged potential new shadows generated solely by the project and the loss of business revenues or the demise of the business. Given the multiple other possible causes of slow-downs in business or complete failure, it is unreasonable to single out unknown shadow impacts as the primary risk to the business' success ,especially before the building is even built. There is thus is no factual basis for the project sponsor to further modify the project.

For these reasons, there are no additional reasonable means of addressing Zeitgeist's concerns. Their "end goal" of a draconian reduction in height will undermine the intent of the Market Octavia Area Plan, and the site's zoning and height limits, all of which implement the City's housing policies that encourage medium density projects like this at transit-rich locations. As a result of the project's Code compliance, including the Housing Element, the project should be approved "as is". The reduction in shadow would be minimal with the parapet reduction of 3.0', when compared to the huge impact to the design of the Valencia façade. The massing of the façade relies on the 4' tall parapet to help set off the aesthetics of the bay windows.

EXHIBIT A

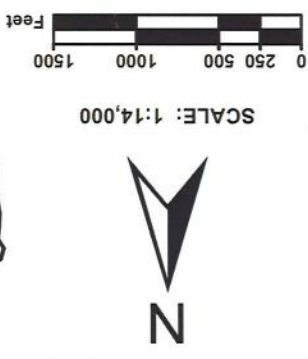
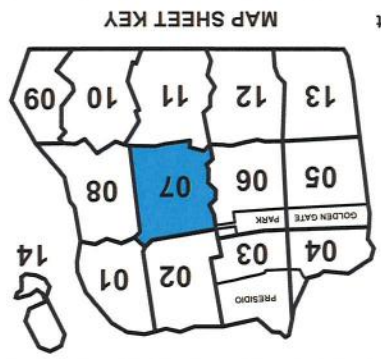
ZONING MAP OF THE CITY AND COUNTY OF SAN FRANCISCO • PLANNING DEPARTMENT

TERMS

HT07

THE ZONING MAP OF THE CITY AND COUNTY OF SAN FRANCISCO IS ESTABLISHED BY SECTIONS 105 AND 106 OF THE PLANNING CODE. A PART OF THE SAN FRANCISCO MUNICIPAL CODE. ZONING ORDINANCES ENACTED THROUGH JULY 2016.

MAP INCORPORATES BOARD OF SUPERVISORS' USE DISTRICTS ARE ESTABLISHED BY SECTIONS 201, 702, 802 AND 902 OF THE PLANNING CODE.



“Numbers” are Height Limits in feet. See Planning Code Section 250 and following.

“Letters” refer to Bulk Limits. See Planning Code Section 270.

“Suffix Numbers” identify districts in which special regulations apply. See Planning Code Sections 263 and following.

OS “Open Space” District

00-Z-1

HEIGHT AND BULK DISTRICTS

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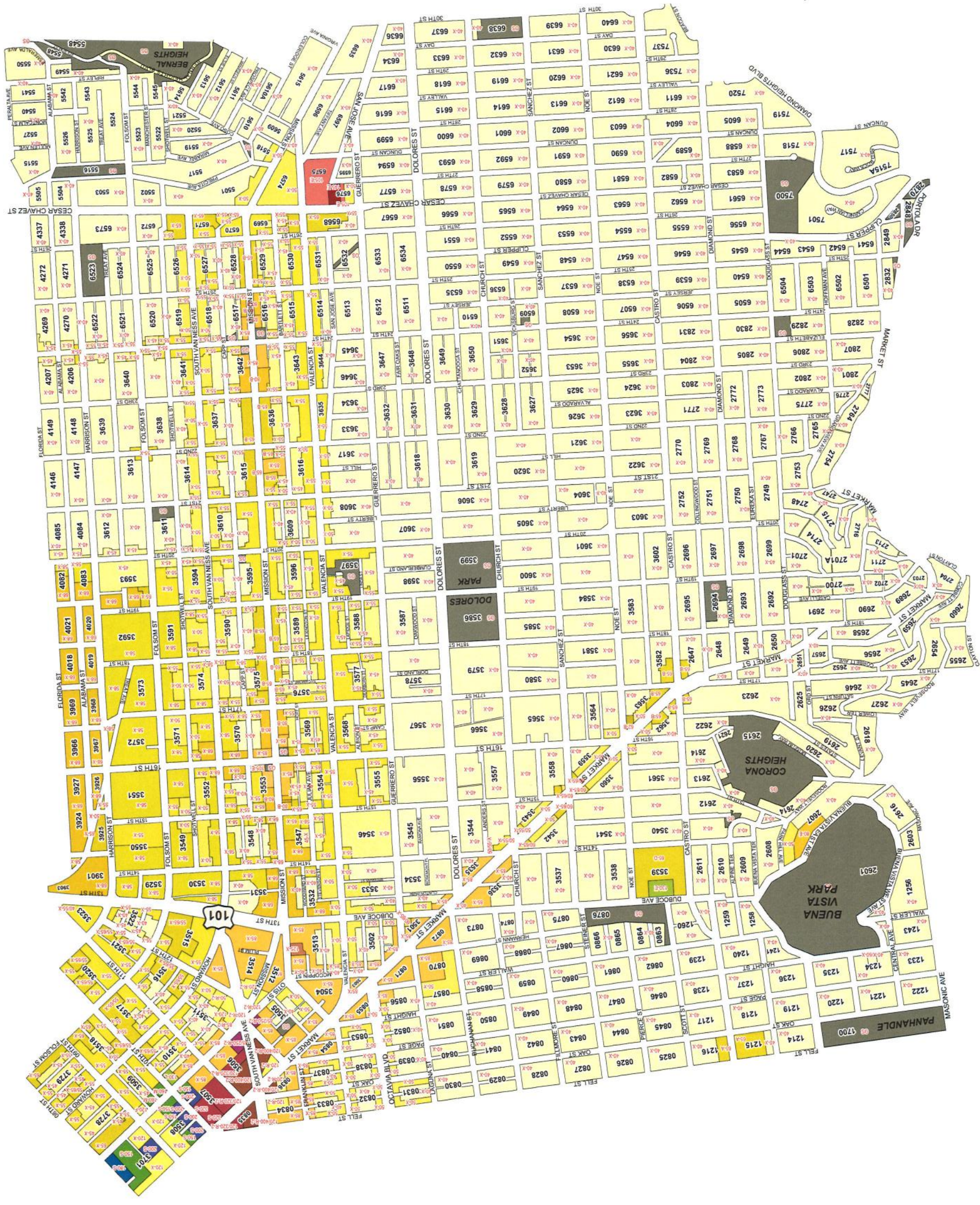


EXHIBIT B

SAN FRANCISCO

SIGN IN OR CREATE ACCOUNT

THINGS TO DO (/SAN-FRANCISCO/THINGS-TO-DO)

RESTAURANTS (/SAN-FRANCISCO/RESTAURANTS)

BARS (/SAN-FRANCISCO/BARS)

MOVIES (/SAN-FRANCISCO/MOVIE)

The best beer garden bars in the Bay

0 ADD COMMENT LOVE IT SAVE IT

It's not always beer garden weather in San Francisco, but when it is, head to these nine outstanding watering holes

f Share Tweet

By Nathan Hurst
Posted: Wednesday March 16 2016

Photograph: Courtesy Park Chalet

Top-notch beer garden spots are few and far between in San Francisco, land of crazy high rent and cold summers. Blame Karl the Fog, or the price of real estate. Those that do exist are often small, tucked away behind a normal-looking beer bar (<http://www.timeout.com/san-francisco/bars/best-craft-beer-bars-in-san-francisco>). If you know where to look, though, you'll find them scattered throughout the Bay from Fisherman's Wharf (<http://www.timeout.com/san-francisco/neighborhoods/north-beach-fishermans-wharf>) to Berkeley; they're quirky, charming and totally unique (and, might we add, perfect for a first date (<http://www.timeout.com/san-francisco/bars/the-best-bars-in-san-francisco-for-a-first-date>)). Not every day here is a beer garden kind of day, so make the most of the ones you get with a trip to one of these fantastic drinking spots.

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The Haight, Western Addition and Hayes Valley neighborhood guide →

SF's best beer garden picks



(/san-francisco/bars/biergarten)

Biergarten (/san-francisco/bars/biergarten)

This Bavarian style beer garden isn't inventing anything, so much as bringing the traditional style of German food and beer to San Francisco. Like its sister establishment, the nearby Suppenküche (<http://www.timeout.com/san-francisco/restaurants/suppenkueche>), Biergarten has rotating taps and Bavarian cuisine. Here, though, you'll find the selection pared down to a few simple go-tos: a light lager; a darker, doppelbock lager; a heffeweizen; and a couple others. The emphasis is on chilling, sitting outside and enjoying the experience—not getting rowdy. Thus, kids are welcome (though no pets), and the alcohol content of the beer is generally a step down from the IPAs you'll see elsewhere. But that's just right for the surroundings; the garden only has outdoor seating (blankets are available when it's chilly) and across the street is a little park known

EXHIBIT C



190 Valencia St

San Francisco, California

Street View - Nov 2007

Google









1. *Given the concerns of the DR requester and other concerned parties, why do you feel your proposed project should be approved?*

Mr. Krooth is the landlord of the building to the east of the project site. He has raised numerous considerations regarding impacts to his building from project construction, most of which will be mitigated by the project sponsor as a result of the CEQA Community Plan Exemption and by compliance with the Planning and Building Codes. As a result, his DR submittal is focused more on process than with the building design and potential impacts to his building.

Mr. Krooth erroneously states that the project does not provide the required front and rear yard setbacks. That is inaccurate. The project is fully Code-compliant. He has stated that roof deck guardrails are going to block windows on the east side of his property. Guardrails are required under the Building Code for safety. Given the distance between the roof deck and the windows, it is highly unlikely that any loss of light would occur. Mr. Krooth also alleges that there will be air quality impacts to his building from the project. The Community Plan Exemption issued for the project on June 1, 2016 found that there were no significant air quality impacts that were not already identified and analyzed in the Program EIR for the Market Octavia Area Plan (“PEIR”) certified in April, 2007.¹ Mitigation measures proposed in the PEIR would be applied to this project to reduce any air quality impacts in the vicinity of the project to less than significant levels. Similarly, Mr. Krooth states that the project design should be subjected to the Residential Design Guidelines. However, those Guidelines are applied only to projects in RH and RM zoning districts. They do not apply in NC districts like the NCT district that regulates development for 198 Valencia.

Mr. Krooth also alleges that his building will be in “permanent shadows, dark and dank” and without a view from its east facing windows. The CPE found that there would be “some additional new shadow on neighbors’ rear yards.” However, shadow impacts on private rear yards are not considered a significant impact under CEQA.² No evidence contrary to the CPE finding has been provided by Mr. Krooth that “permanent shadows” could happen.

Mr. Krooth is also concerned about traffic congestion and an increase in accidents as a result of the 19 cars going in and out of the building. Traffic congestion impacts are no longer required to be analyzed under CEQA. Traffic safety concerns are under the purview of SFPD. Fourteen of the 19 cars will be for residential use and are principally permitted at a ratio of .50 under Table 151.1. The remaining 5 spaces are principally permitted under Table 151.1 for the retail use. Thus, not all building residents will have an off-street parking space. This will thus encourage more residents to use bicycles, MUNI and walking as their primary means of travel, thus minimizing the risks of traffic incidents in the vicinity of the building.

Mr. Krooth is seeking a 40’ setback on the eastern side of his building, which faces numerous openings on the project’s western elevation. Such a setback would be extreme and would dramatically reduce the building’s square footage and thus unit count. He is also asking

¹ See Community Plan Exemption, pp. 26-29.

² *Id.* at p. 34.

for “full sunlight” provided to his building year-round. Project sponsor has no control over that. Lastly, he is asking for a reduction in building height to 2 stories.³

None of Mr. Krooth’s statements provide a factual and reasonable basis for the Commission to take DR. The project provides multiple public benefits. It will revitalize an under-utilized corner site in a transit rich neighborhood with 28 new 1-and 2-bedroom units including 4 BMR units. Nineteen off-street parking spaces are permitted as of right under Table 151.1. The 14 residential spaces are at a parking ratio of .50 and the 5 retail spaces make up the remainder. Twenty-four Class-1 bicycle parking spaces will be provided as an incentive for residents to use bicycles as their primary mode of travel. Lastly, the site is located near the BART and MUNI lines as well as the numerous buses on Mission Street to facilitate travel to and from work and other parts of the City. For these reasons, the project should be approved as proposed.

2. *What alternatives or changes to the proposed project are you willing to make in order to address the concerns of the DR requester and other concerned parties?*

Mr. Krooth’s requested modifications are unreasonable and would drastically limit the density and unit count of the building. The City has a housing shortage which projects like this help address. The 25’ and 40’ setbacks that Mr. Krooth has requested are untenable. Doing so would effectively negate the project’s goal of providing a dense, low-rise project for 1- and 2-bedroom units in a well-situated location for residents to get to their jobs, school and entertainment activities. As noted earlier, the HAA eliminates the option of reducing project height and density from consideration by the Commission.

In an effort to work out acceptable accommodations with Mr. Krooth, the project sponsors initiated contact with Community Boards. While they were willing to participate in the Community Board process, Mr. Krooth suddenly and without explanation stopped speaking to Community Board staff to set up a mediation. To further try to address Mr. Krooth’s concerns, the project sponsor met with Mr. Krooth’s son. He requested that the planters on the podium level be lowered to avoid blocking windows in his father’s building. The planters were lowered to eliminate blockage of the windows.⁴

3. *If you are not willing to change the proposed project or pursue other alternatives, please state why you feel that your project would not have any adverse effect on the surrounding properties. Include an explanation of your needs for space or other personal requirements that prevent you from making the changes requested by the DR requester.*

Because the project is 5 stories tall, it will limit light and air into some adjacent units in Mr. Krooth’s building. According to the property survey, Mr. Krooth’s property line windows are numerous. Some will face the 22.5’ deep rear yard; others will face the new building. As noted above, most of his concerns were process-oriented and thus have no bearing on what

³ As noted in the DR Response to Zeitgeist (2013.1458 DRP), the Commission would be precluded under the Housing Accountability Act from taking such action under these circumstances.

⁴ See Exhibit A. Plan Sheet A2.0

potential physical impacts may occur to his building. Given the distance between the buildings, it is unlikely that there would be any discernible impacts to Mr. Krooth's tenants.

The project site was rezoned and the height limit increased to 50' in 2008. Under the NCT-zoning, the project is Code-compliant with the required development standards and numerous General Plan and City policies encouraging infill development, especially at under-utilized sites like this in transit-rich neighborhoods. The 1- and 2-bedroom units proposed for this project remain in great demand as more singles, couples and families move to the City to take advantage of the City's job creation engine.

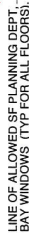
By complying with the required development standards, the project has provided significant common open space in the roof deck. Private open space is also provided in the form of terraces to some of the upper units. Streetscape improvements thoughtfully add a variety of trees and spacing to soften the front façade.

The height limit at this corner and along much of Valencia Street to the south was increased to revitalize the neighborhood by allowing moderately taller mixed-use buildings along the Valencia corridor. Ground floor retail is a common feature along Valencia Street. In keeping with the ground floor commercial and residential use above, this building reflects the overall character and development pattern along much of Valencia Street.

The project satisfies the City's needs for 1-2 bedroom units, including 4 BMRs. It fulfills the City's General plan goals of increasing housing density at infill lots and providing a variety of housing opportunities. It reflects the longstanding character of the surrounding neighborhood by providing ground floor retail and housing above.

For the above reasons, we do not believe that there would be adverse impacts that would result in any loss of light and air in Mr. Krooth's building.

EXHIBIT A





January 3, 2017

Via Messenger

Rodney Fong
President
San Francisco Planning Commission
1650 Mission, Suite 400
San Francisco, CA. 94103

Re: 198 Valencia Street: Discretionary Review Requests
Hearing Date: January 12, 2017

Dear President Fong and Commissioners:

We represent the developers of the above referenced project. The project site is located at the northwest corner of Duboce and Valencia streets. It currently contains a 1-story auto repair building housing an Oil Changer business. The project proposes a 5-story mixed use building containing 28-1 and 2-bedroom units in the top 4 floors and two retail spaces on the ground floor facing Valencia totaling 6,269 sf.¹ Two Discretionary Review ("DR") requests were filed: the owners of the Zeitgeist bar at 199 Valencia Street, directly across Valencia Street (or 82.5') from the project and Mr. Richard Krooth, the owner of the 2-story residential building north of the project at 118-120 Duboce.

Both DR Requesters seek to reduce the height and density of the project. Zeitgeist has an outdoor drinking area ("beer garden") on its premises. It wants this Commission to remove the top 2 stories of the 5-story building, leaving a 3-story building. The basis for this draconian request is that the current proposed building height (which complies with the 50-X height limit under the Planning Code) will create shadow on its outdoor drinking area. Zeitgeist claims without evidence, that such shadow will directly result in the loss of at least 30% of its revenue, resulting in closure of the business. In contrast, Mr. Krooth wants the new building to be 3 stories lower than proposed so that it is no taller than his 2-story building, which has lot line windows along the shared property line with the project.²

Zeitgeist filed its DR request on August 18, 2016. Yet, the shadow study to support its DR request was dated August 12, 2016 and was only recently provided to my clients and

¹ The project sponsors will seek two neighborhood-serving retail businesses to occupy these spaces.

² We will provide elevation plans showing each DR requester's proposed alternative at the hearing.

Planning on December 8, 2016. Even though its DR request was based entirely on the shadow that would detrimentally affect the ongoing success of its business, it held out providing its shadow determinations to the project sponsors and Planning until a few weeks before the scheduled hearing. See Exhibit A. A peer review analysis of Zeitgeist's shadow study was conducted by the project sponsors' shadow consultant, Adam Phillips of Prevision Design. See Exhibit B. His findings are summarized below.

1. The rear yard area of 199 Valencia Street was shaded under current shading conditions 53.34% of the year (as a percentage of the TAAS).³
2. The proposed project, if built as designed, would contribute an additional 2.06% of shade annually (as a percentage of the TAAS).
3. Minimal project shadow (with respect to size and duration) would fall on the space over the winter months, and new shading would not occur earlier than 5:30 pm in the summertime, nor before 3:30 pm in the spring and fall.
4. The duration of time when some new shading would be present would be between zero and about 2 hours, but on average about 90 minutes.
5. Late April and Mid-August would see the most net new project shading, and on the dates of maximum shadow (April 26/August 16), the net new shadow would account for 4.14% of the total available sunlight for that day.

No written or quantitative findings were included by Zeitgeist's shadow study consultants. Thus, Mr. Phillips could only review and assess the shadow study graphics provided by Zeitgeist's consultants in order to assess whether those graphics accurately showed the relative shadow output, timing and impact on the beer garden. Given that the shadow sources or impacts are shown only by gross outlines of the surrounding built environment, this data is not persuasive of the extent of shadow impact alleged by Zeitgeist.

During the last few weeks, Zeitgeist has been actively engaging local print/online media with the story of its possible demise if the project is not reduced in height. Both Hoodline and SF Gate (through Mission Local) ran stories, each of which had numerous comments. Many of these comments provide anecdotal evidence that regardless of the amount of shadow on the beer garden, Zeitgeist's patrons will still come to both enjoy the outdoors – sun, fog or shade – and Zeitgeist's beer and cocktails. See Exhibit C. Rather than the sure and imminent harm that Zeitgeist claims it will face if the building is built as proposed, it is apparent that many of its

³ "TAAS" is the theoretical annual available sunlight (or TAAS) for a space. It is the amount of sun that would fall on a space if there were nothing around it to cast a shadow. As noted in our DR response, the beer garden is blocked from southern sun by a large billboard on its building, several large canopied street trees located in the beer garden which cast large shadows in it, and trees on the Valencia frontage that block sunlight. Also, Zeitgeist provides shade umbrellas at all of its tables in the beer garden.

patrons understand that living in San Francisco means experiencing a variety of microclimates throughout the City and the year.

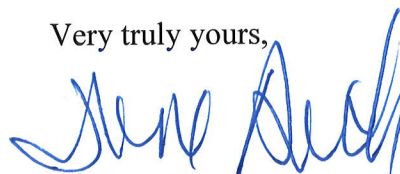
We are not aware whether Zeitgeist has provided to Planning any documentation or shown with a degree of statistical confidence that the proposed shadow has a high probability of reducing its business volume and cause it to close its doors. The Commission should not rely on such a low and unsubstantiated level of certainty of that outcome as a basis for granting DR.

Attached as Exhibit D are letters of support for the project by neighborhood business owners and residents along with a map of their proximity to the project site.

Based on the attached and our DR response to Zeitgeist and Krooth, we urge you to deny both DR requests on the failure of both parties to show any exceptional and extraordinary circumstances. This area was up-zoned under the Market Octavia Area Plan. The height and density was easily anticipated. Granting the DR requests of either party will result in the loss of from 14-21 rental units. Given the current state of the City's housing crisis, such units should be encouraged to be built, especially at such a transit-rich location.

We urge you to deny both DR Requests at the January 12, 2017 hearing.

Very truly yours,



Ilene Dick

ID:id
Attachments

cc: (Via Email w/attachments)
Victor Quan
Urbano Ezquerro
Adam Philips
David Sternberg

EXHIBIT A

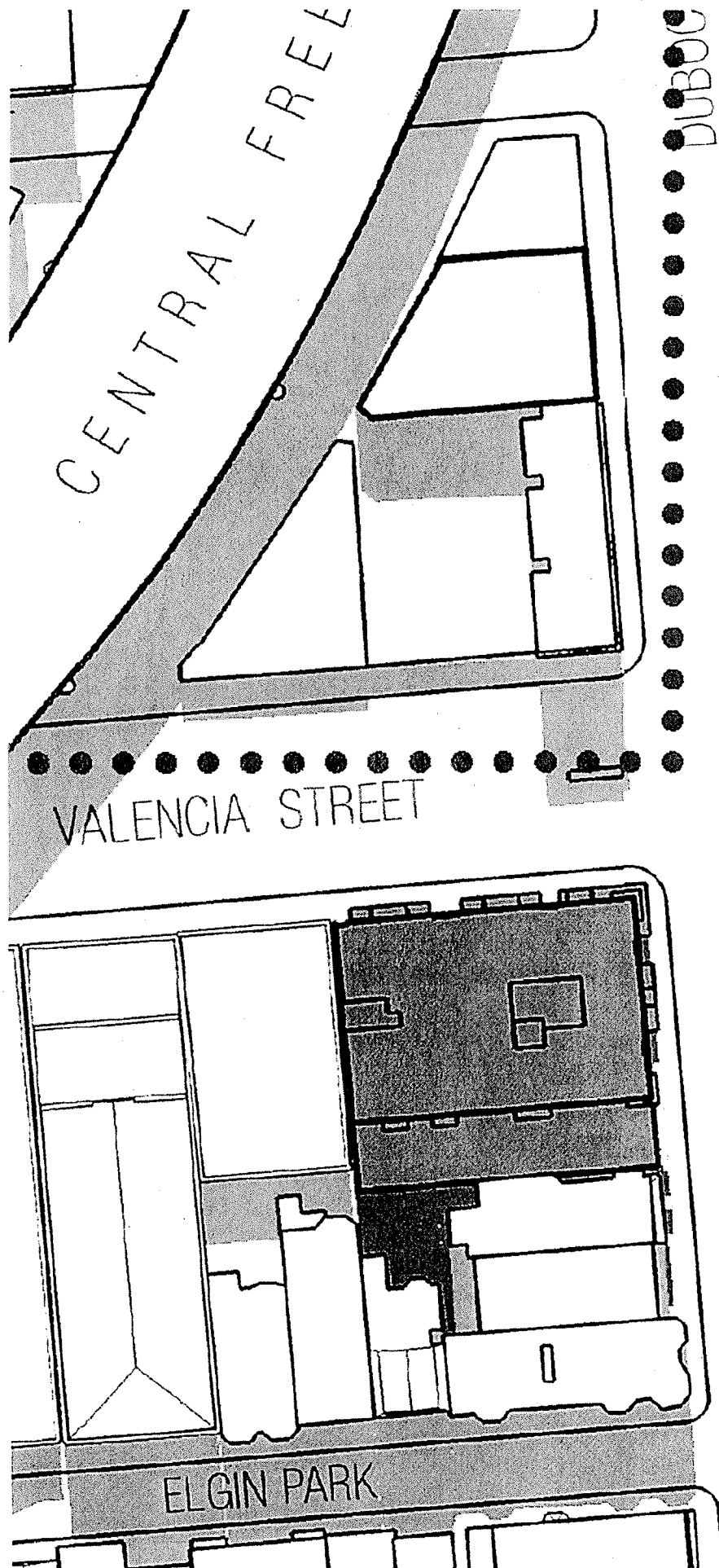
Shading study for new development in Valencia St

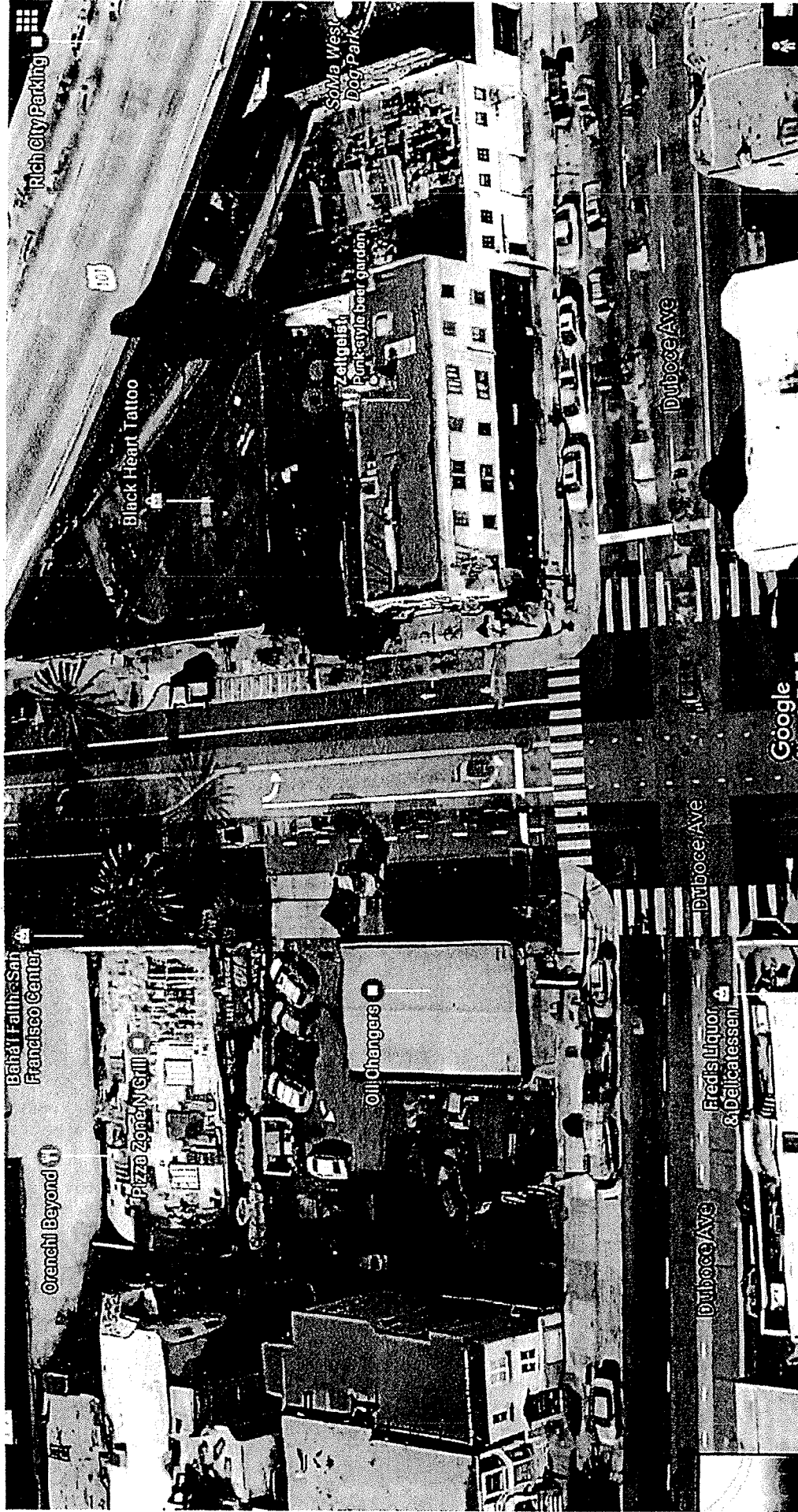
Proposals by Zeitgeist on volumetric options and their impact on the insulation of the beer garden

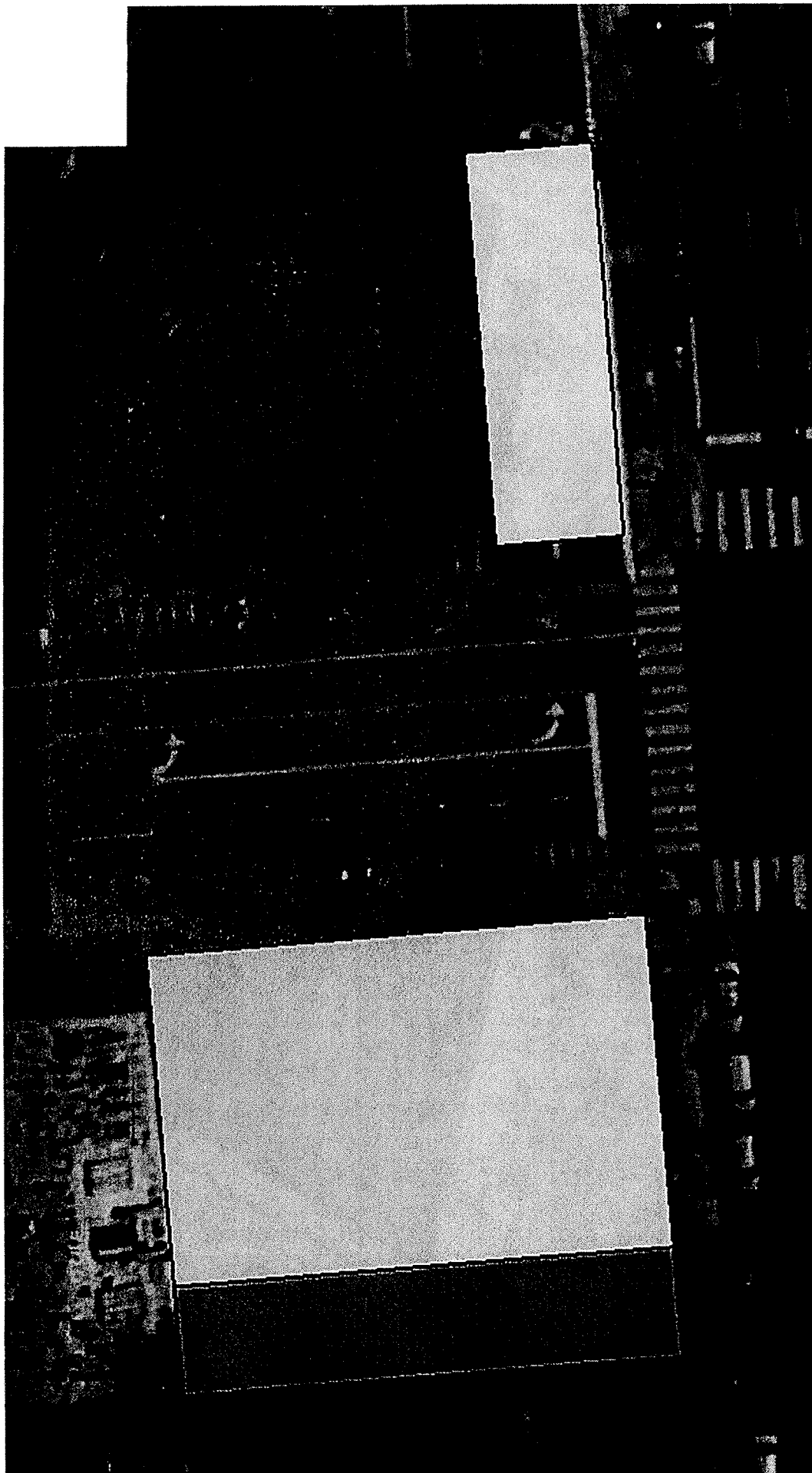
This document contains the shading studies carried out by the management of Zeitgeist with the intention of providing volumetric alternatives to the current proposed development across Valencia St. The scope of this document is to inform the upcoming meeting between Zeitgeist and the developers.

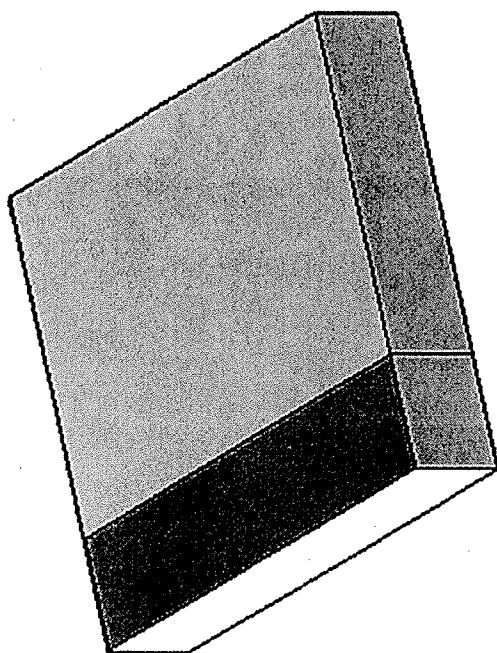
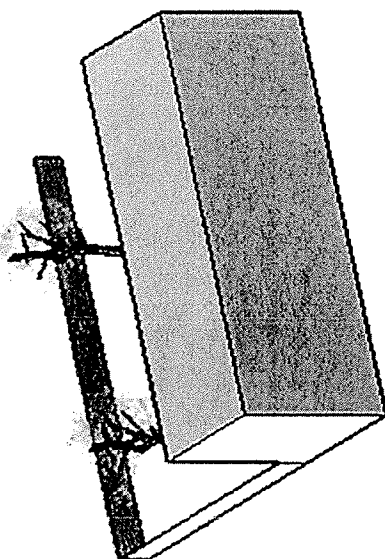
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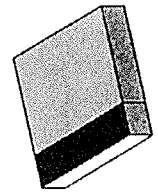
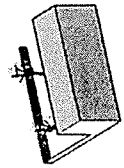
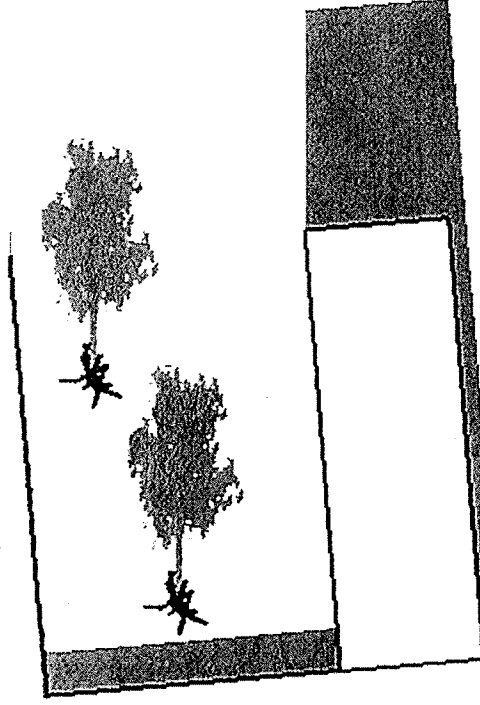
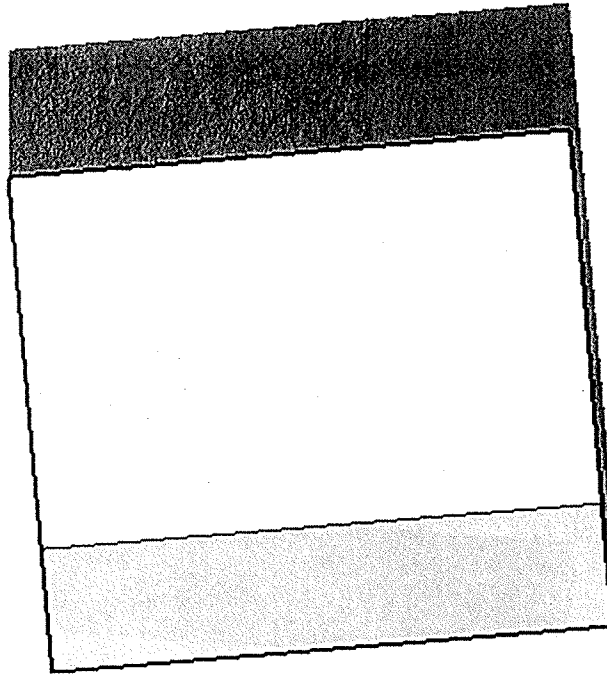






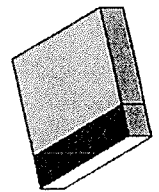
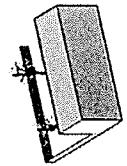
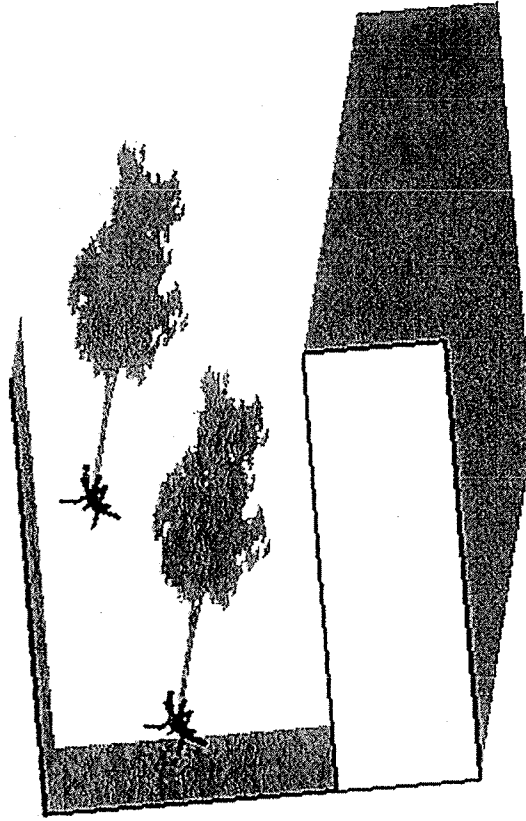
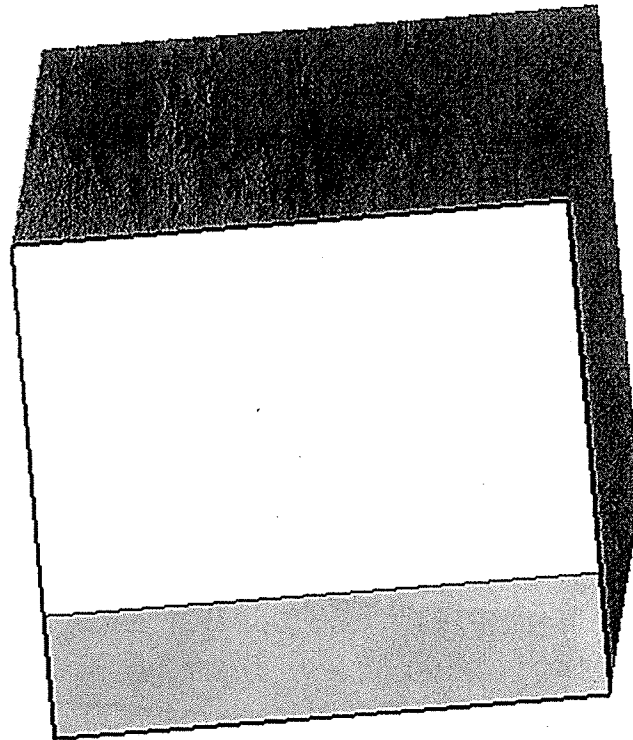
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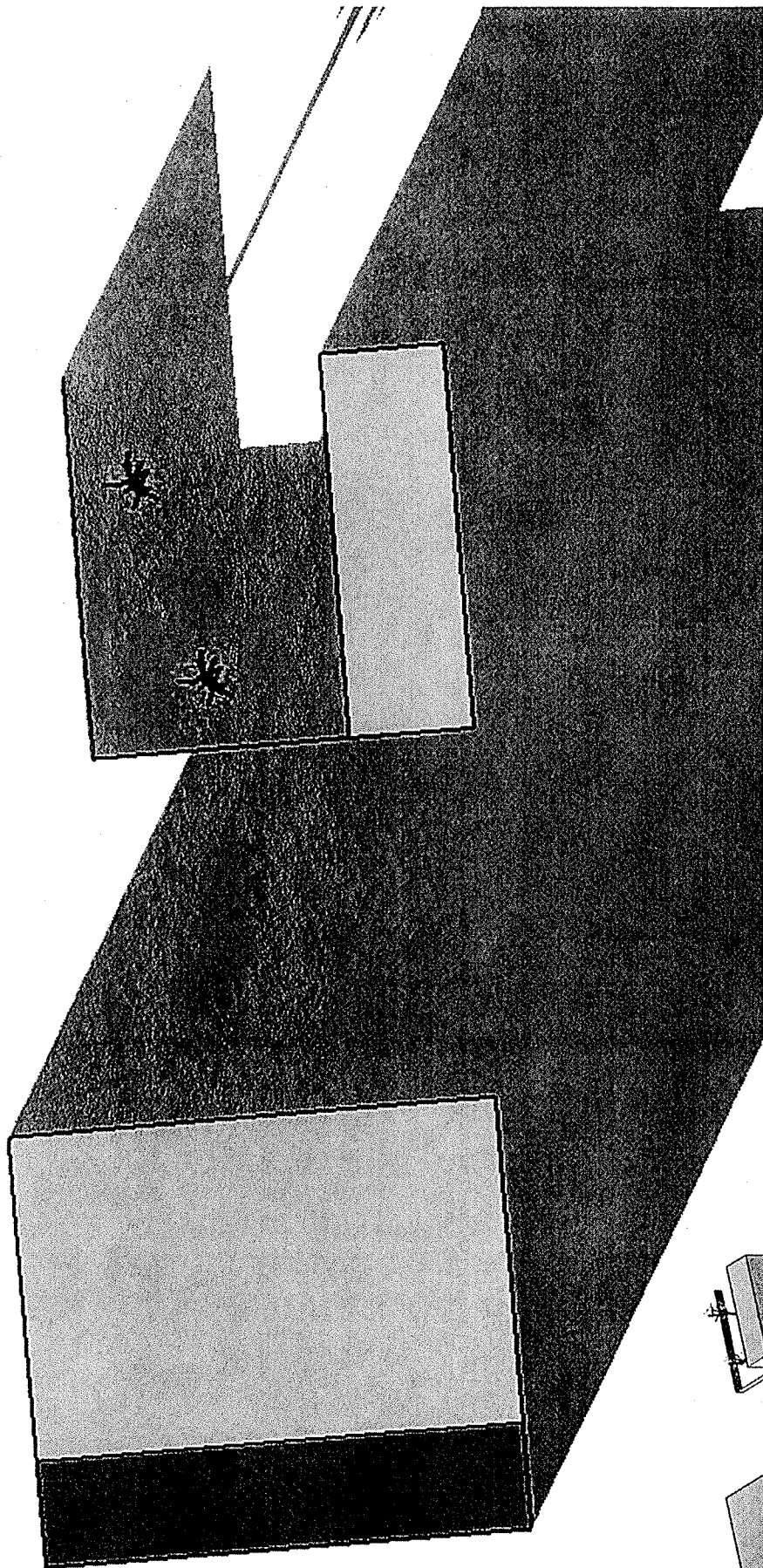
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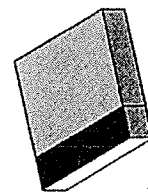
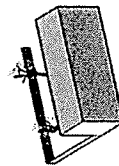


June 21st 7pm

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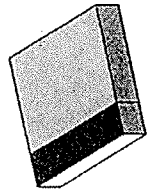
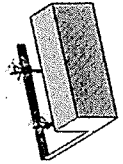
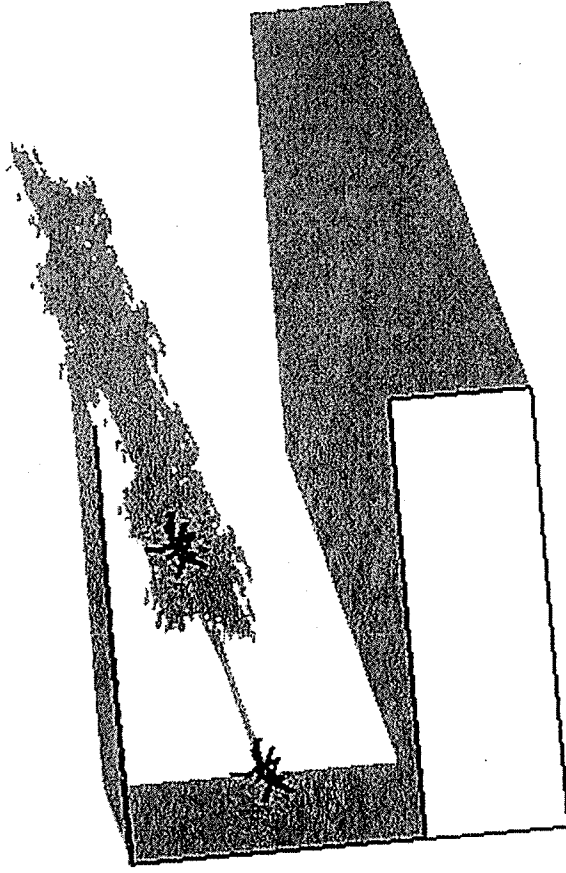
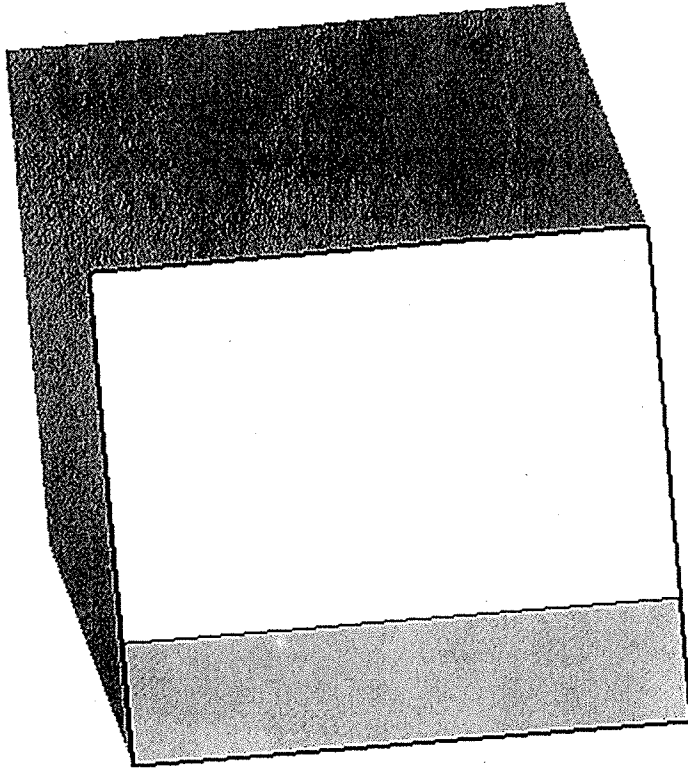


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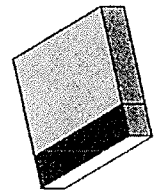
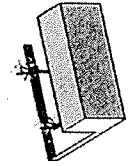
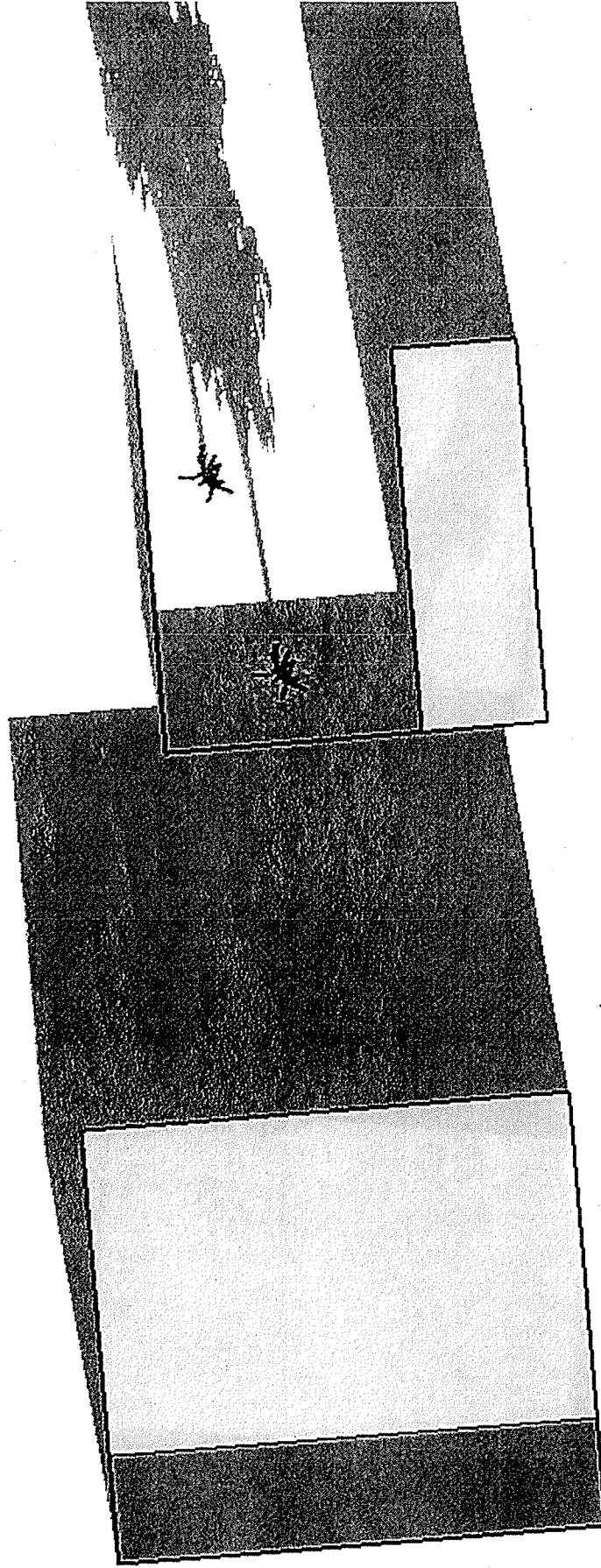
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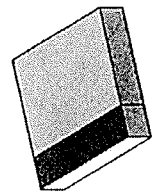
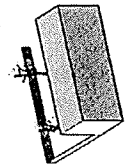
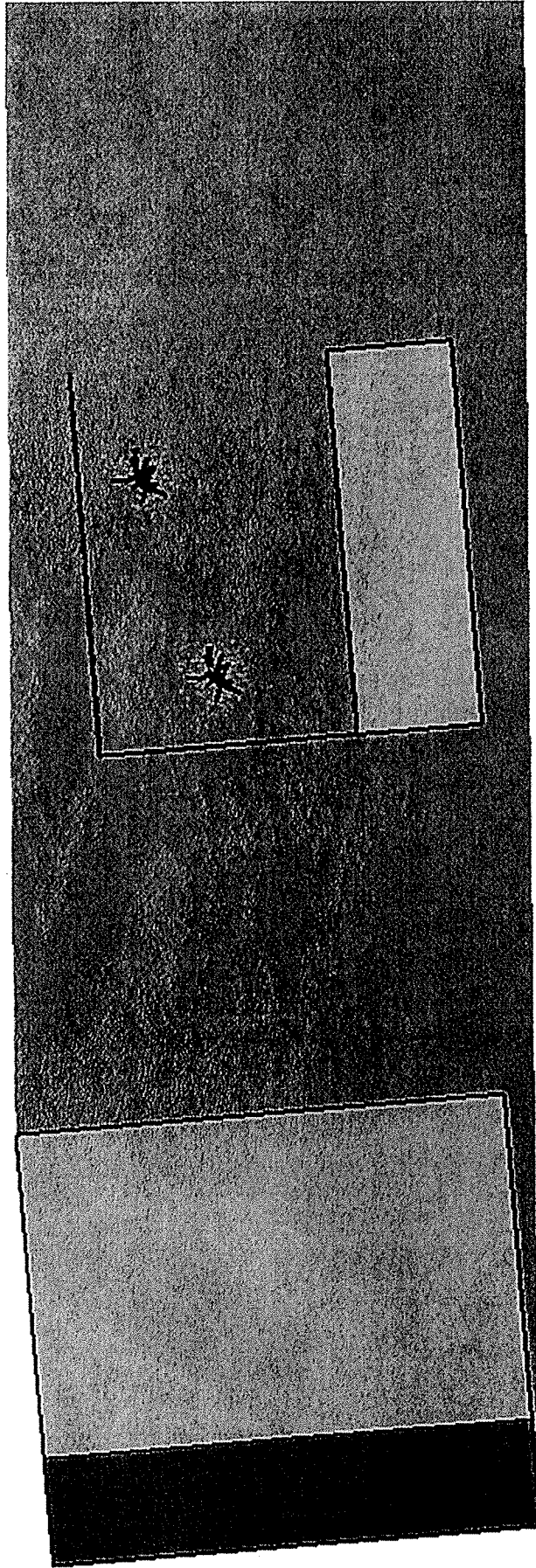
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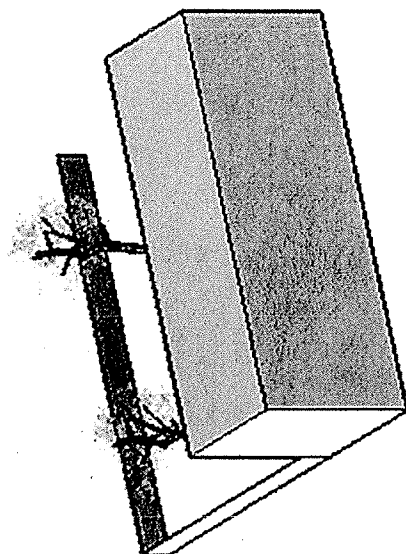
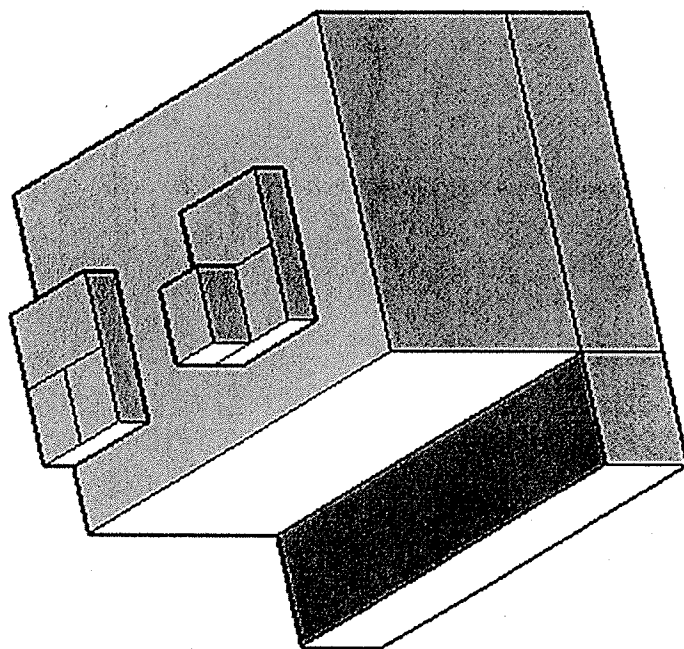
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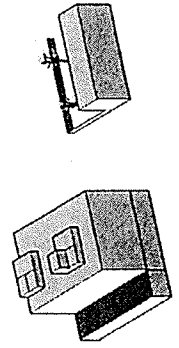
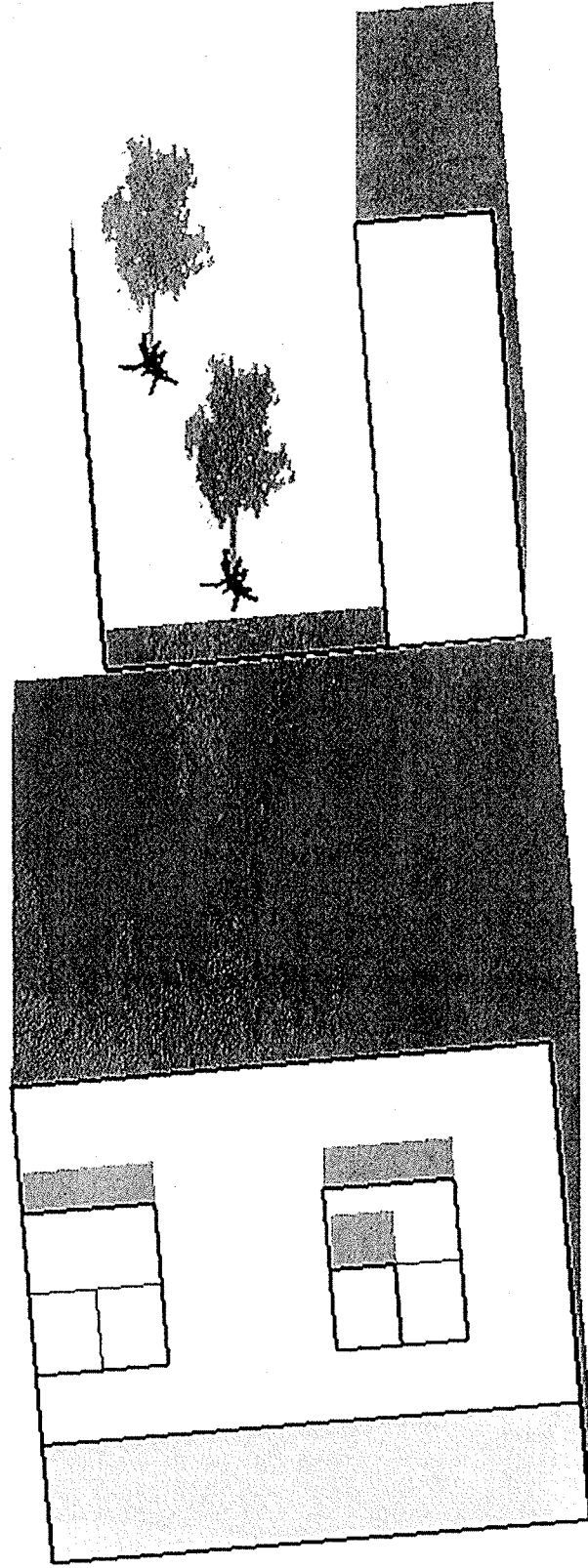
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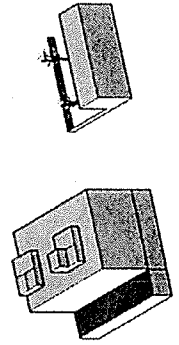
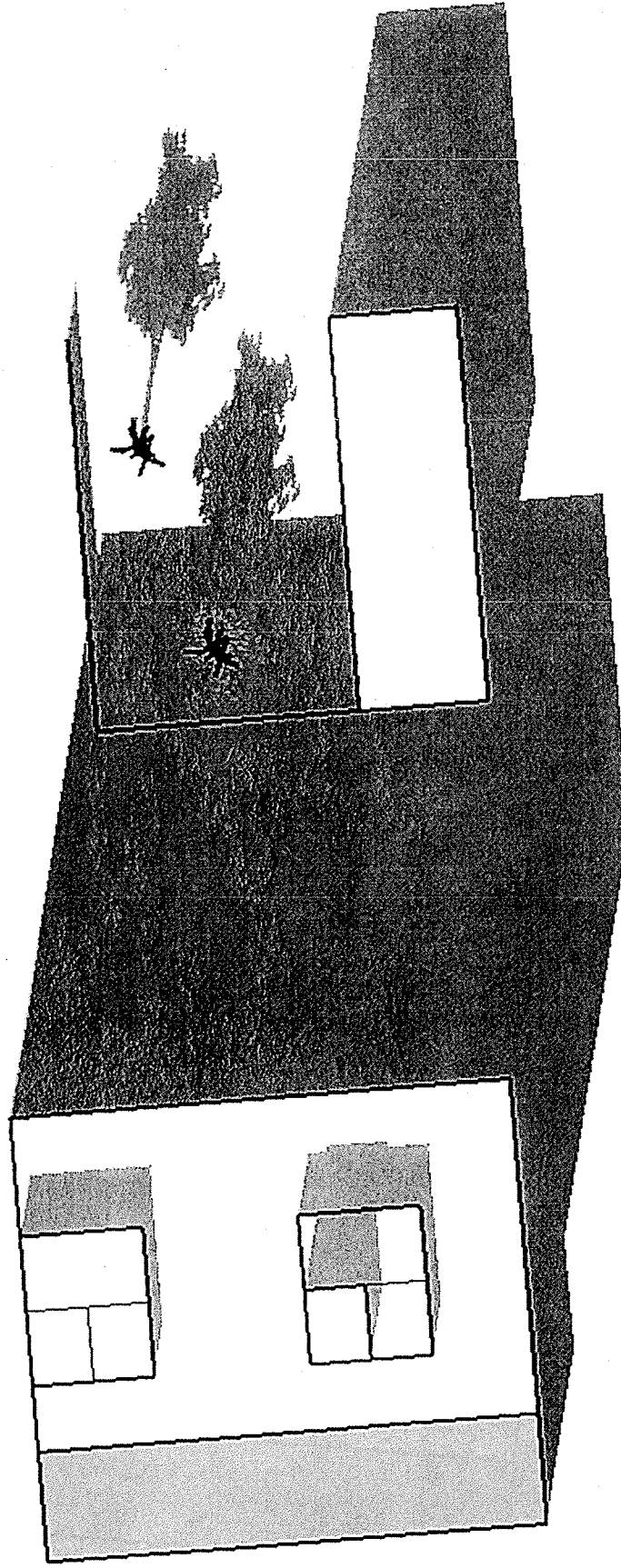
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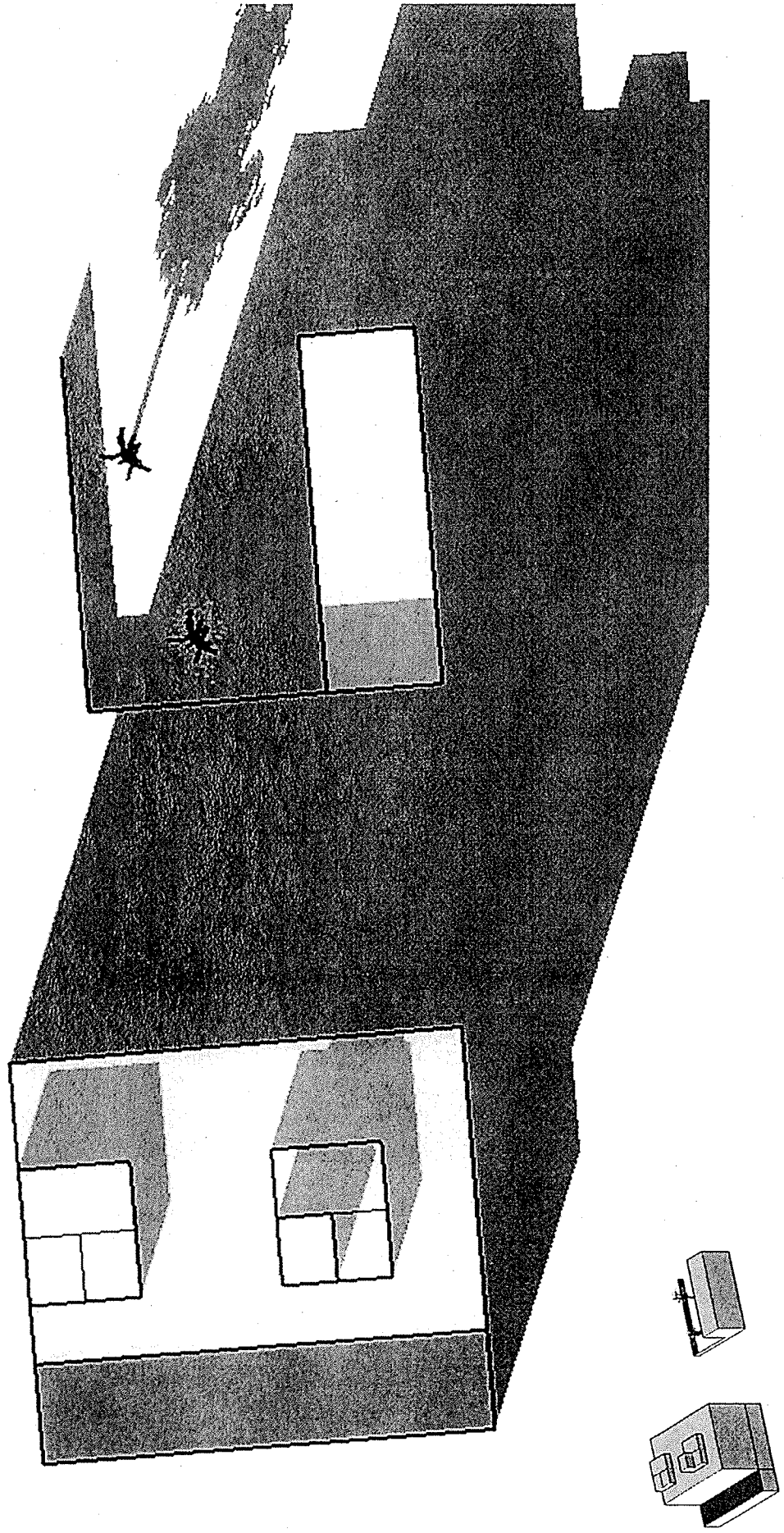
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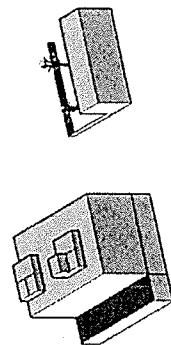
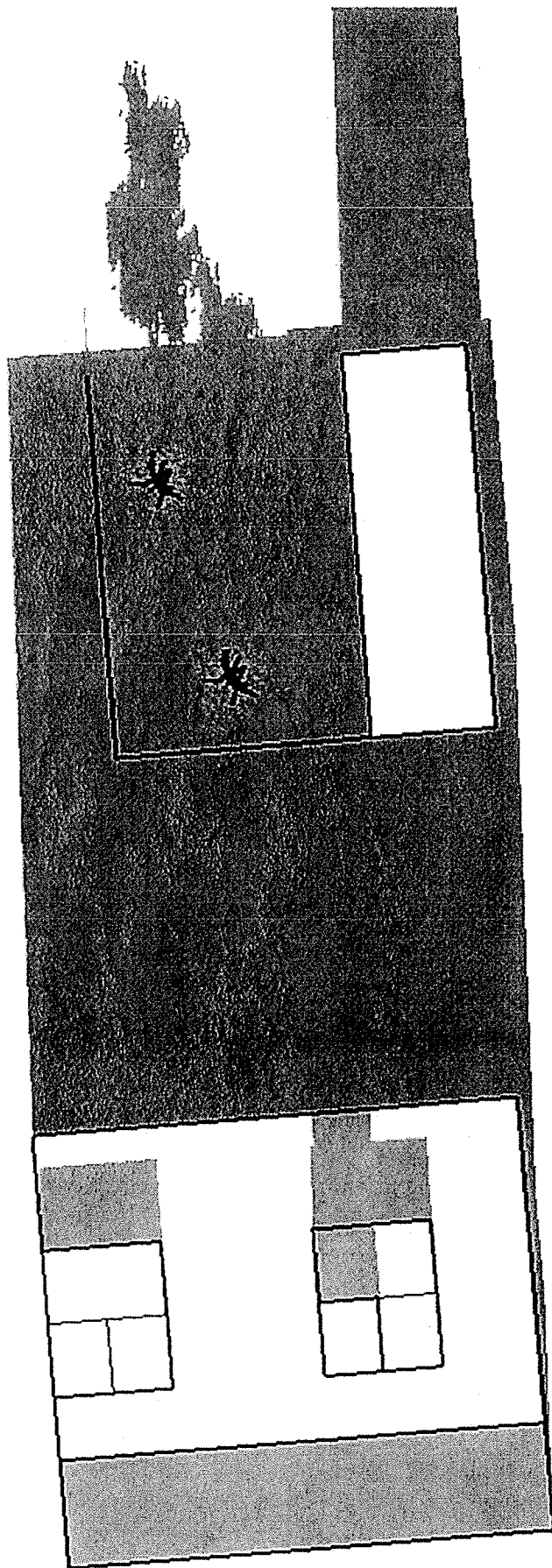
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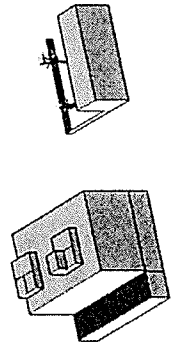
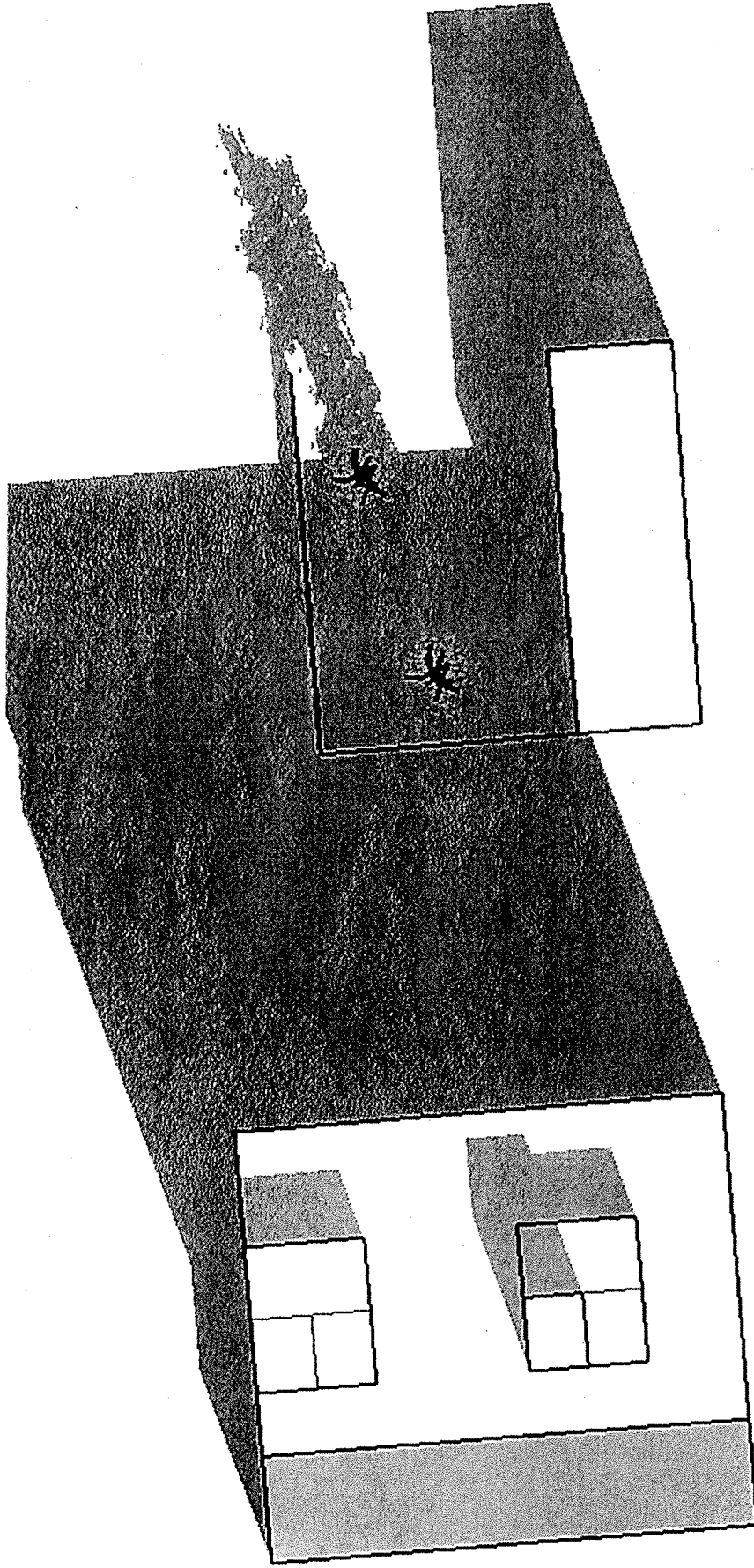
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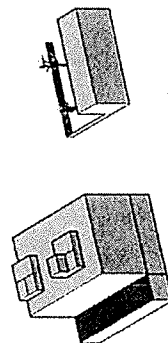
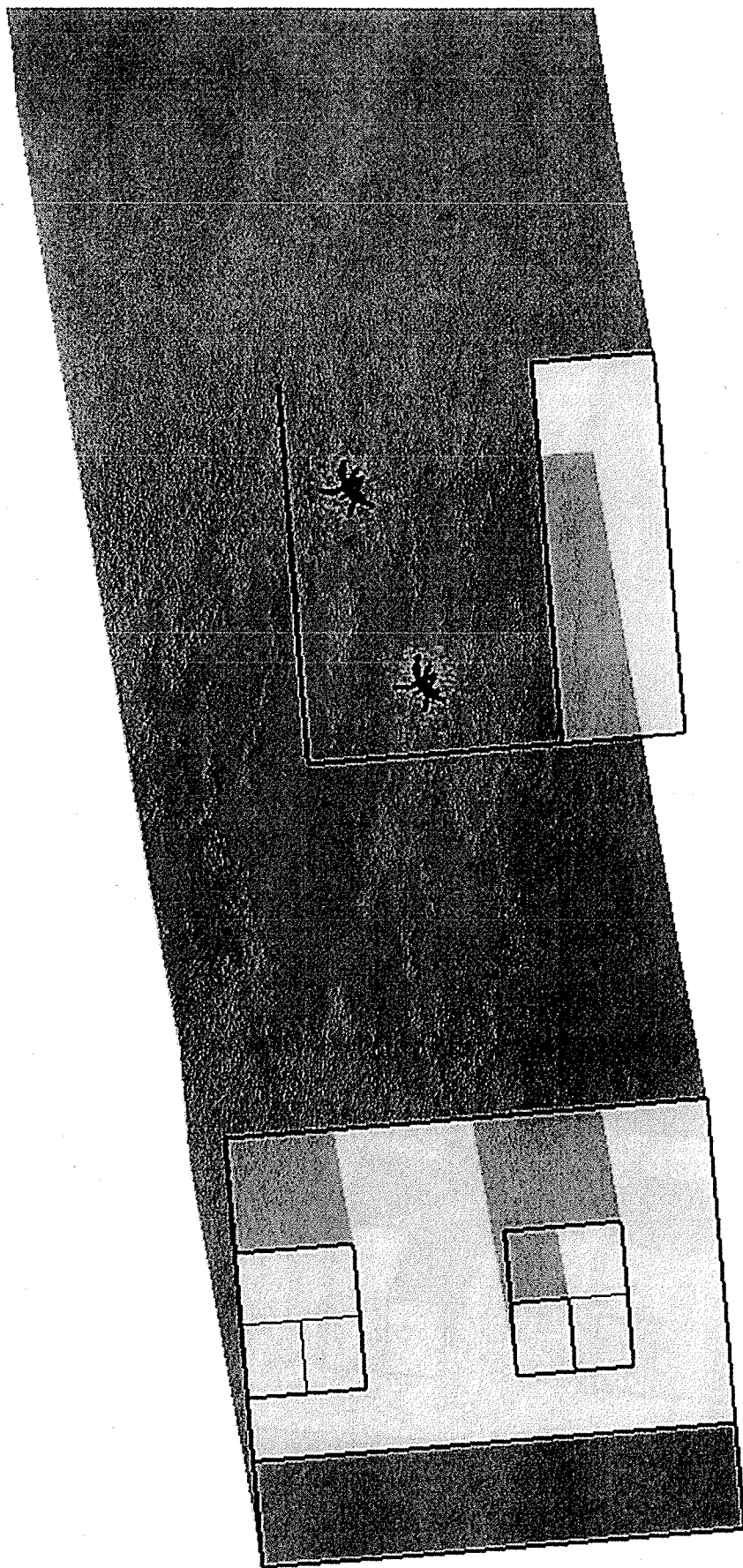
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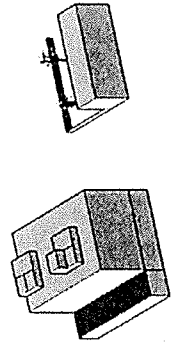
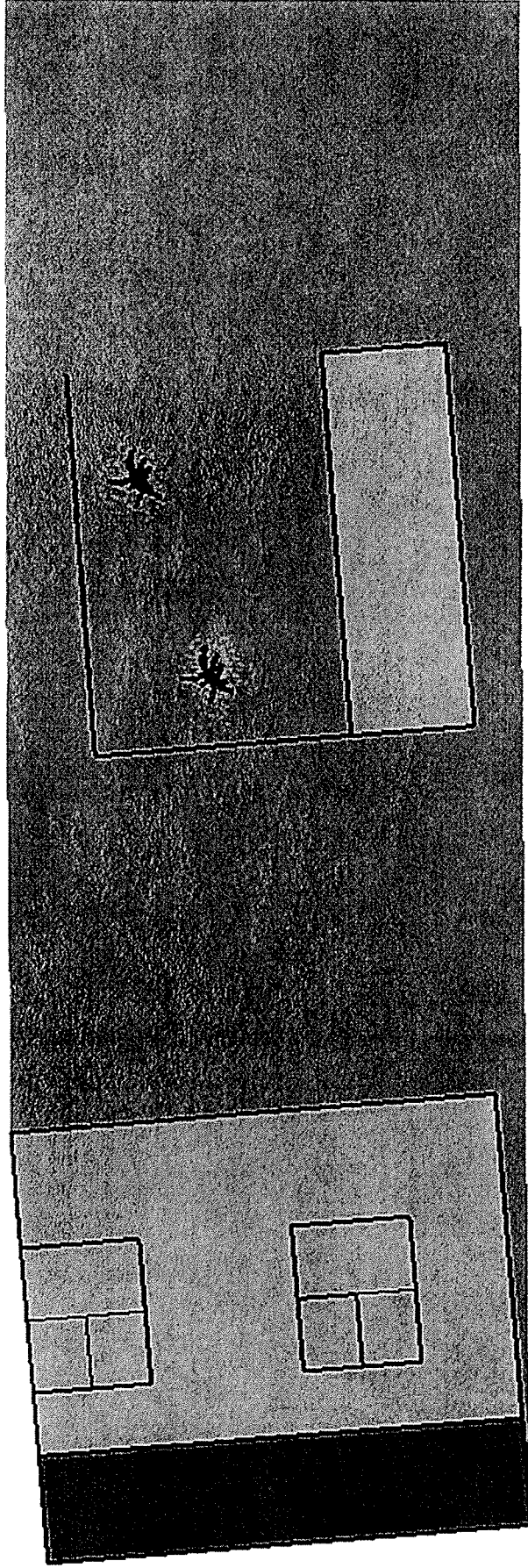
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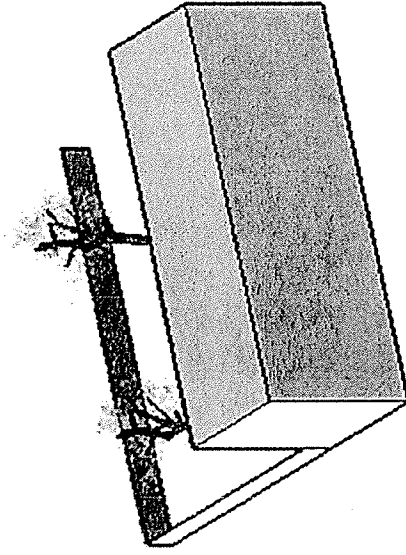
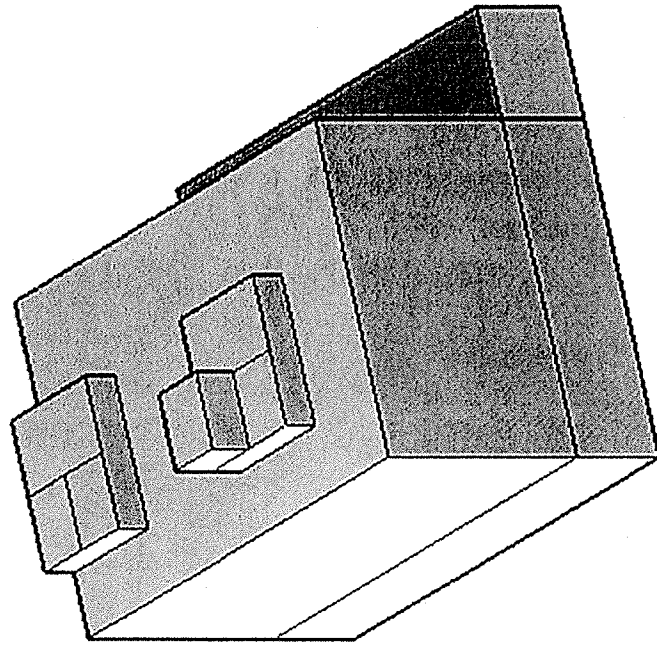
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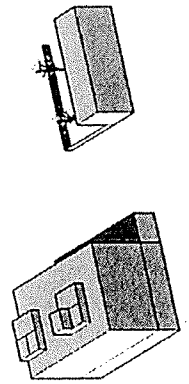
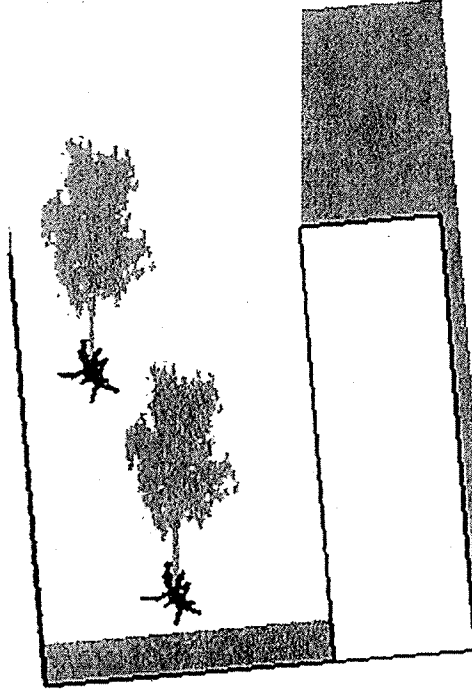
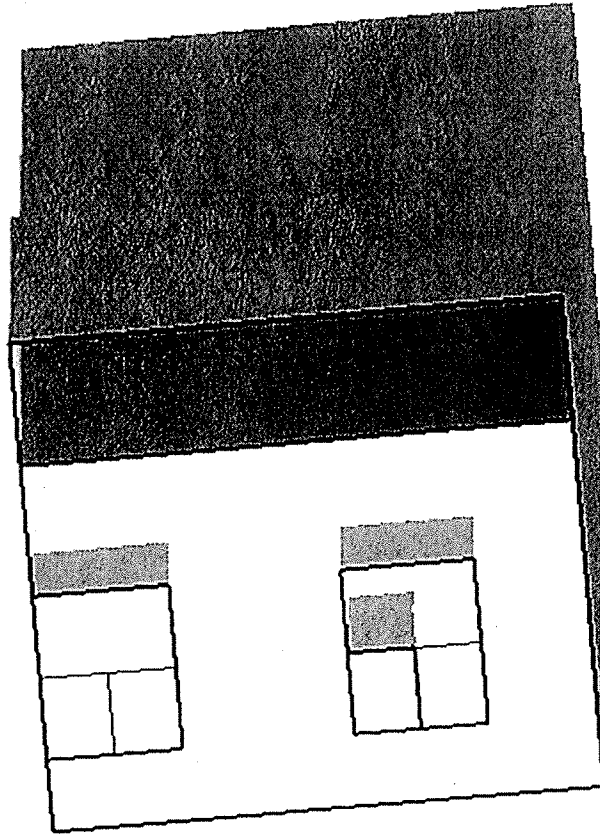
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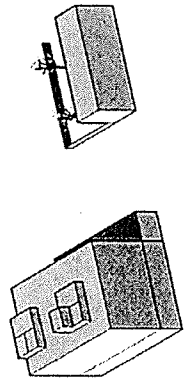
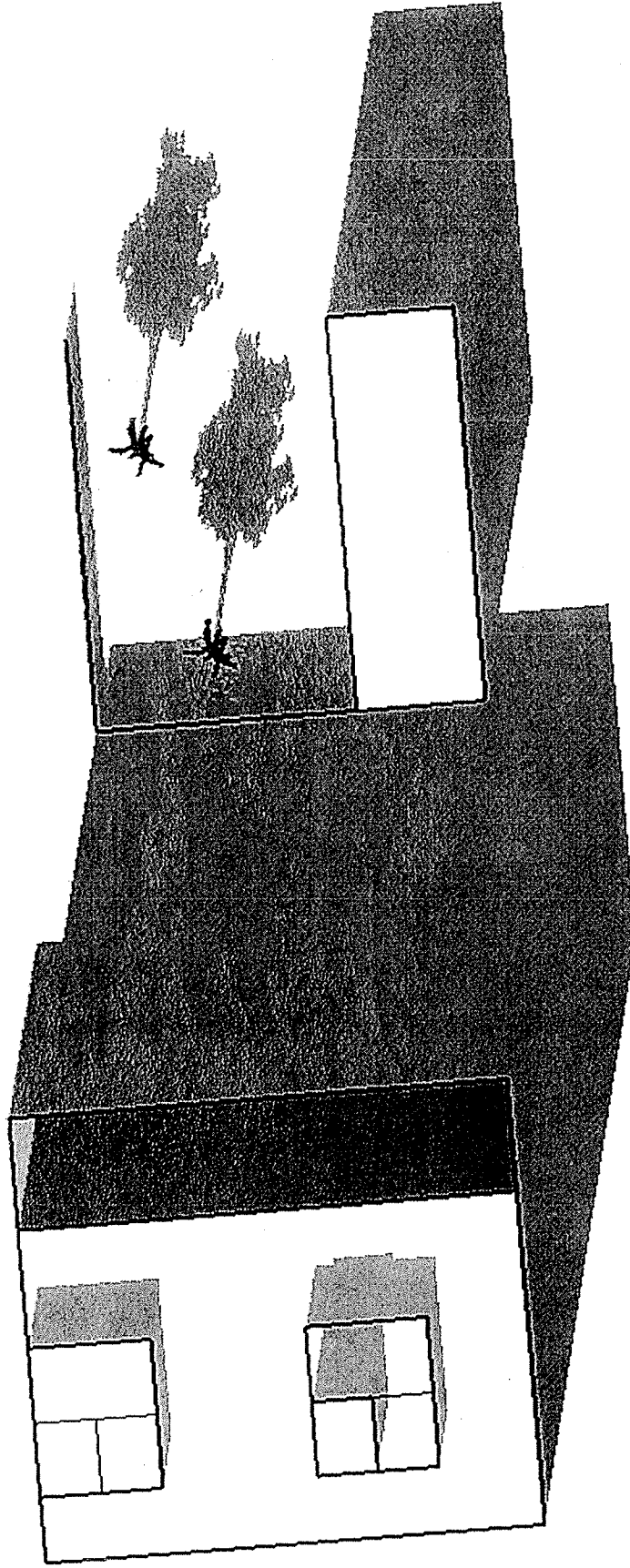
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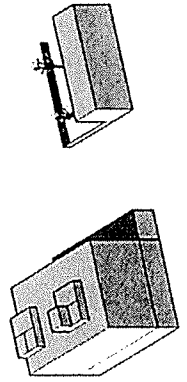
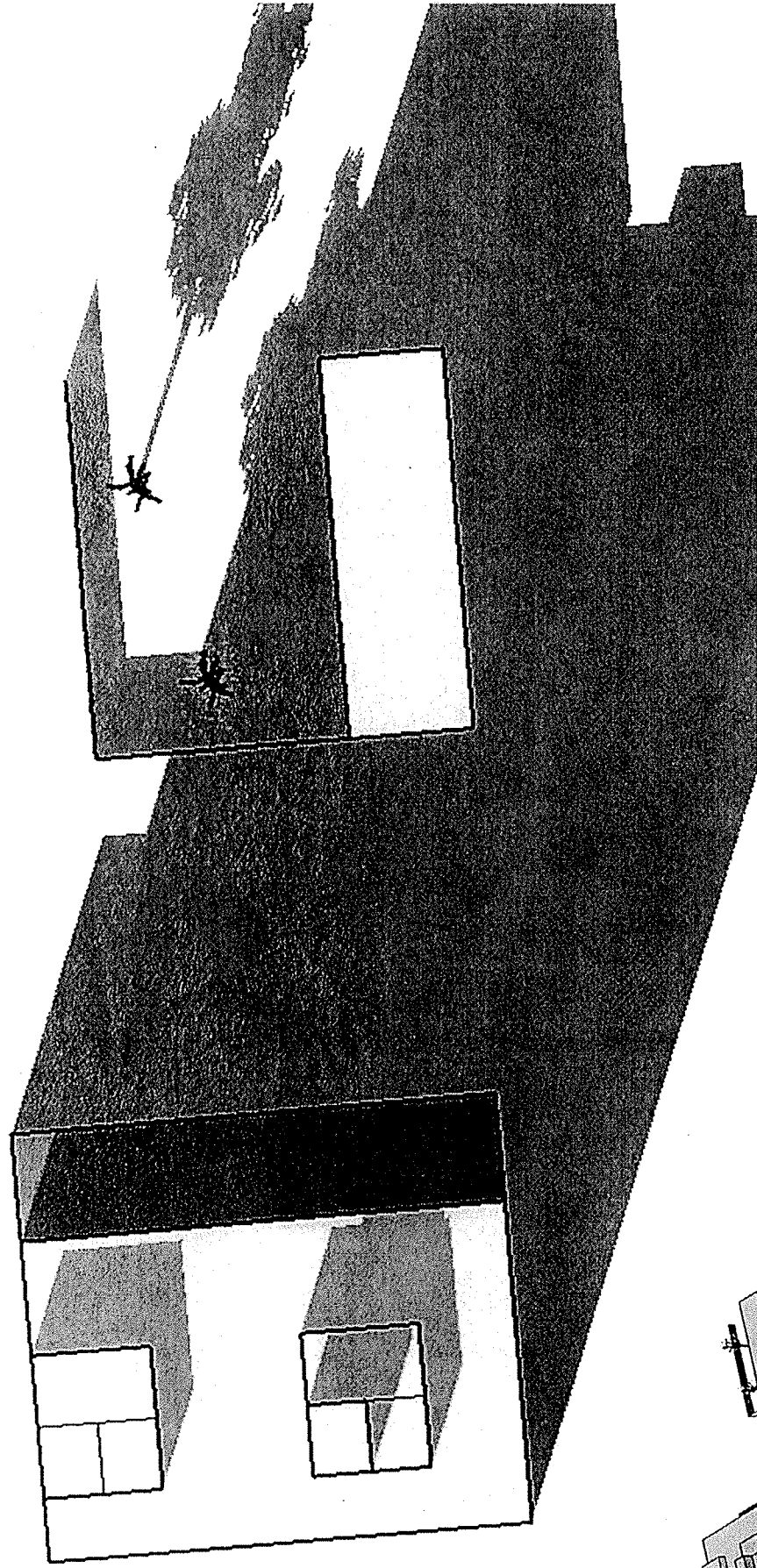
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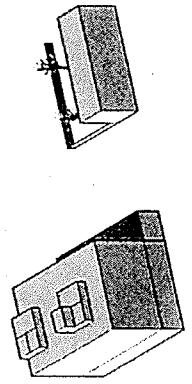
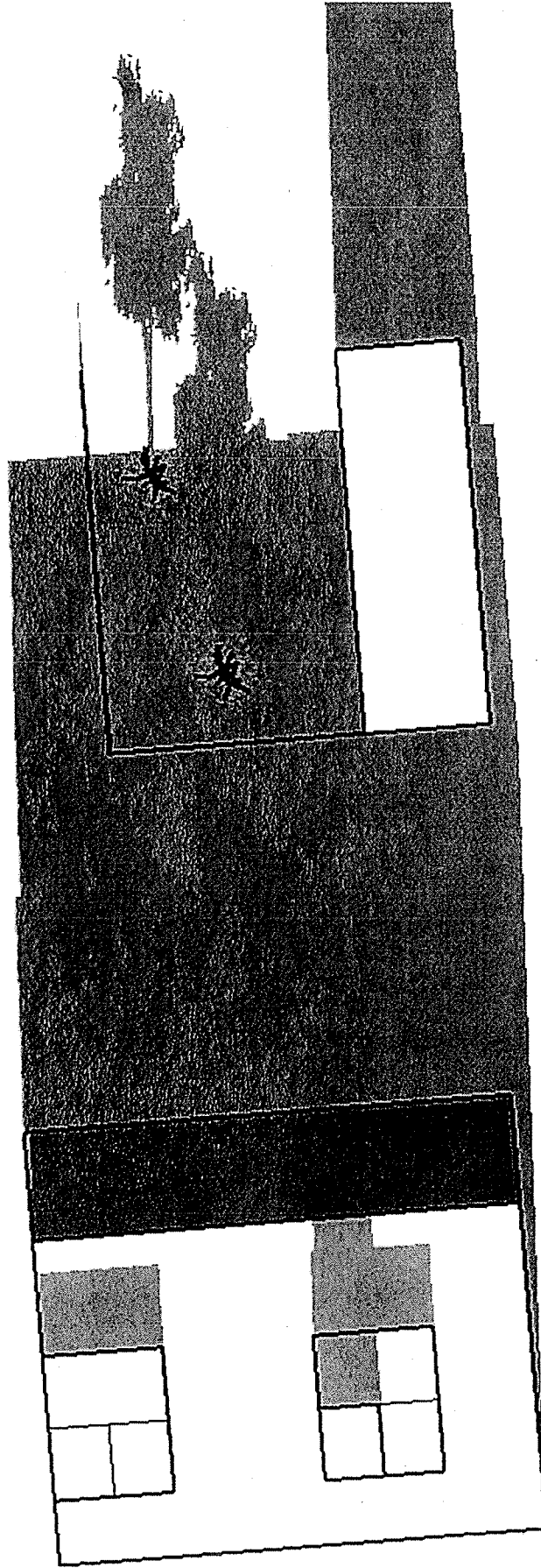
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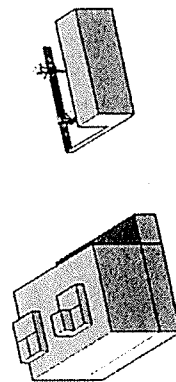
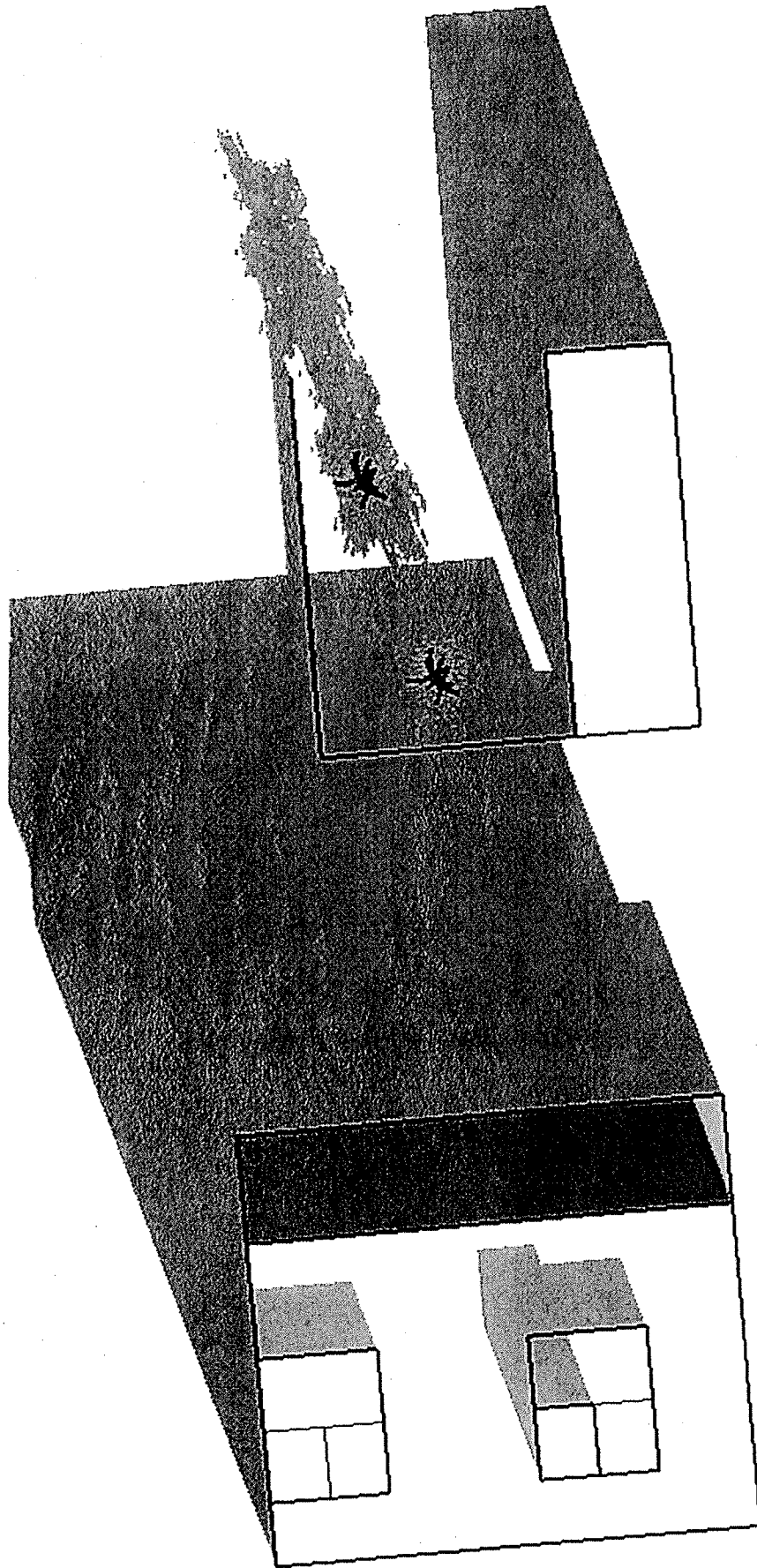
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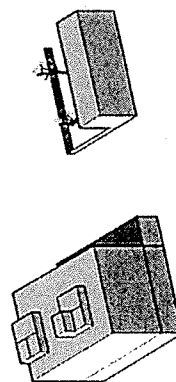
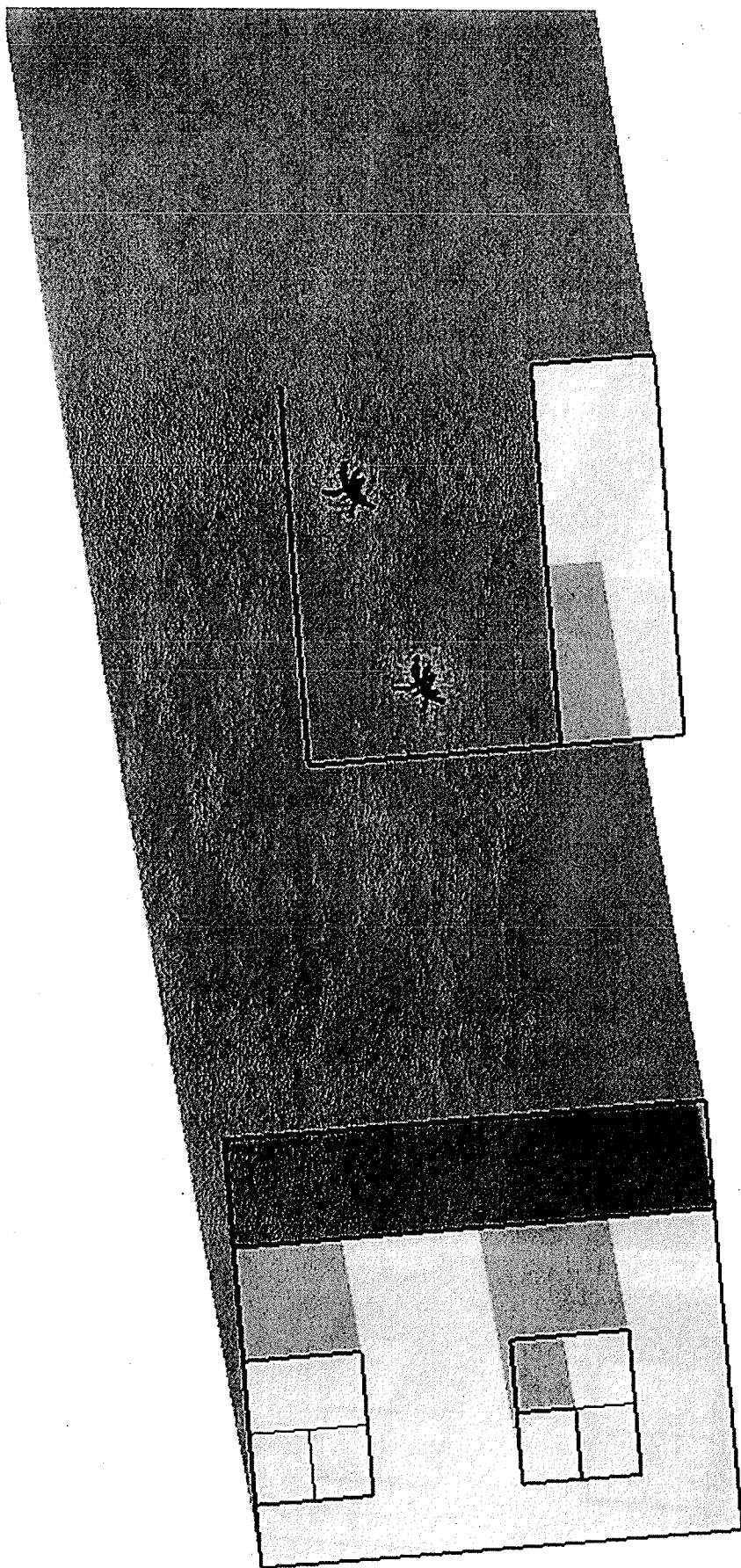
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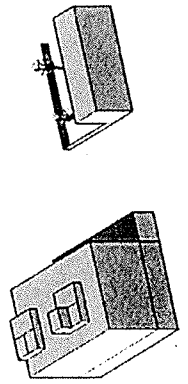
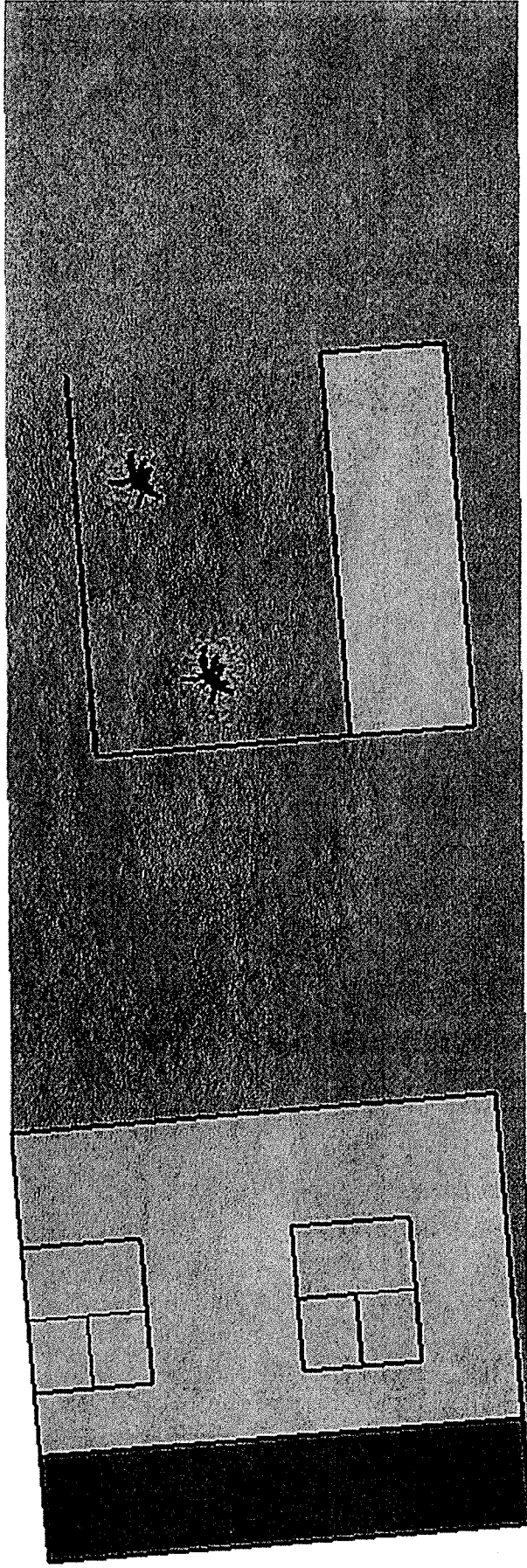
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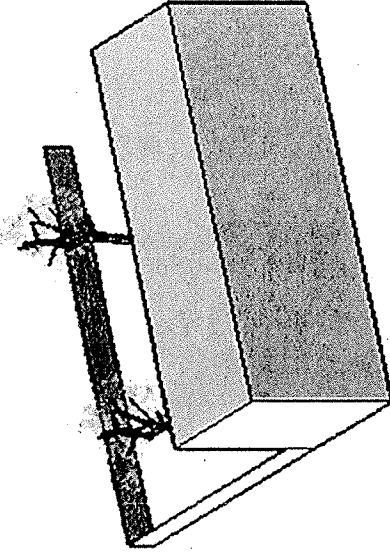
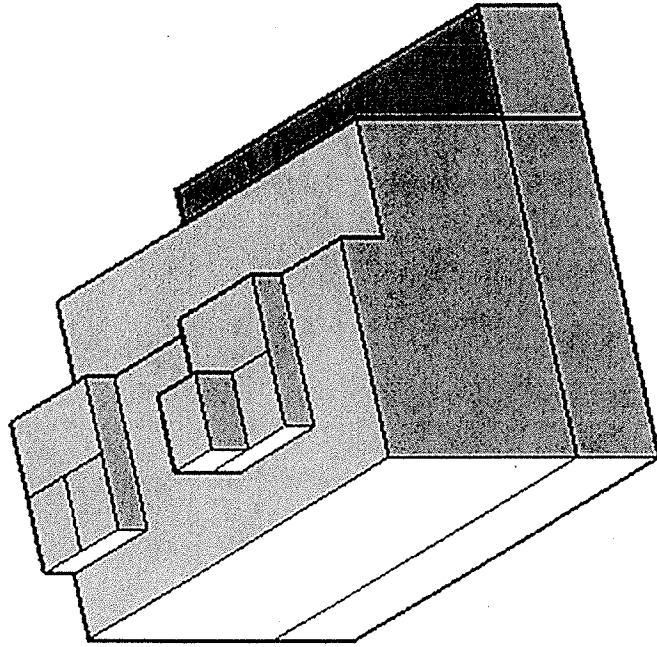
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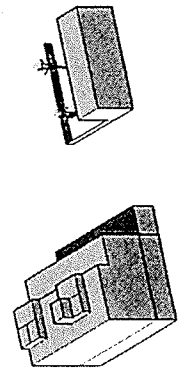
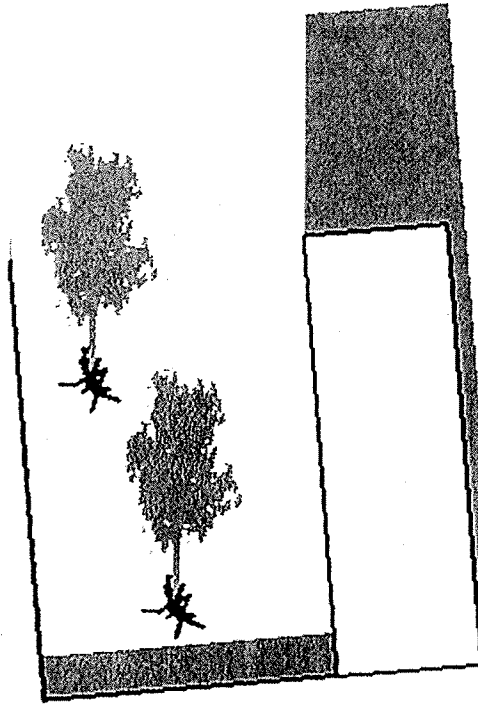
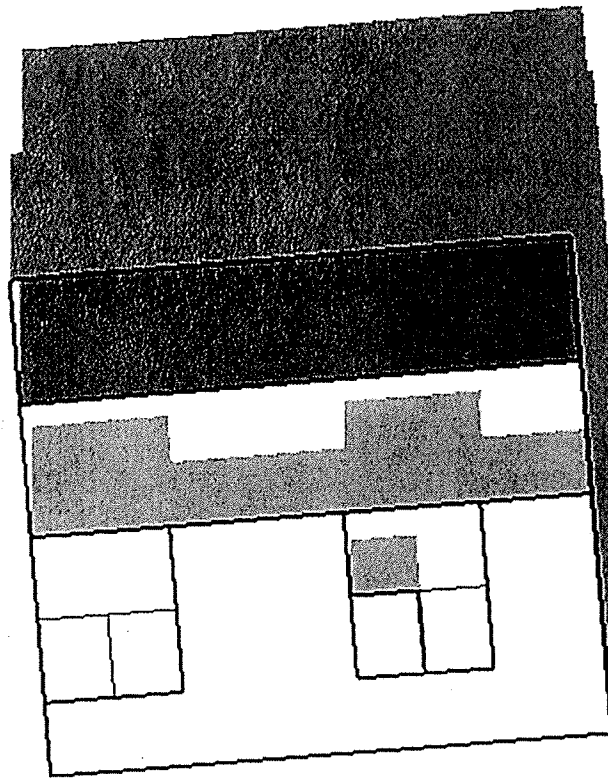
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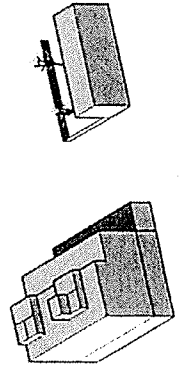
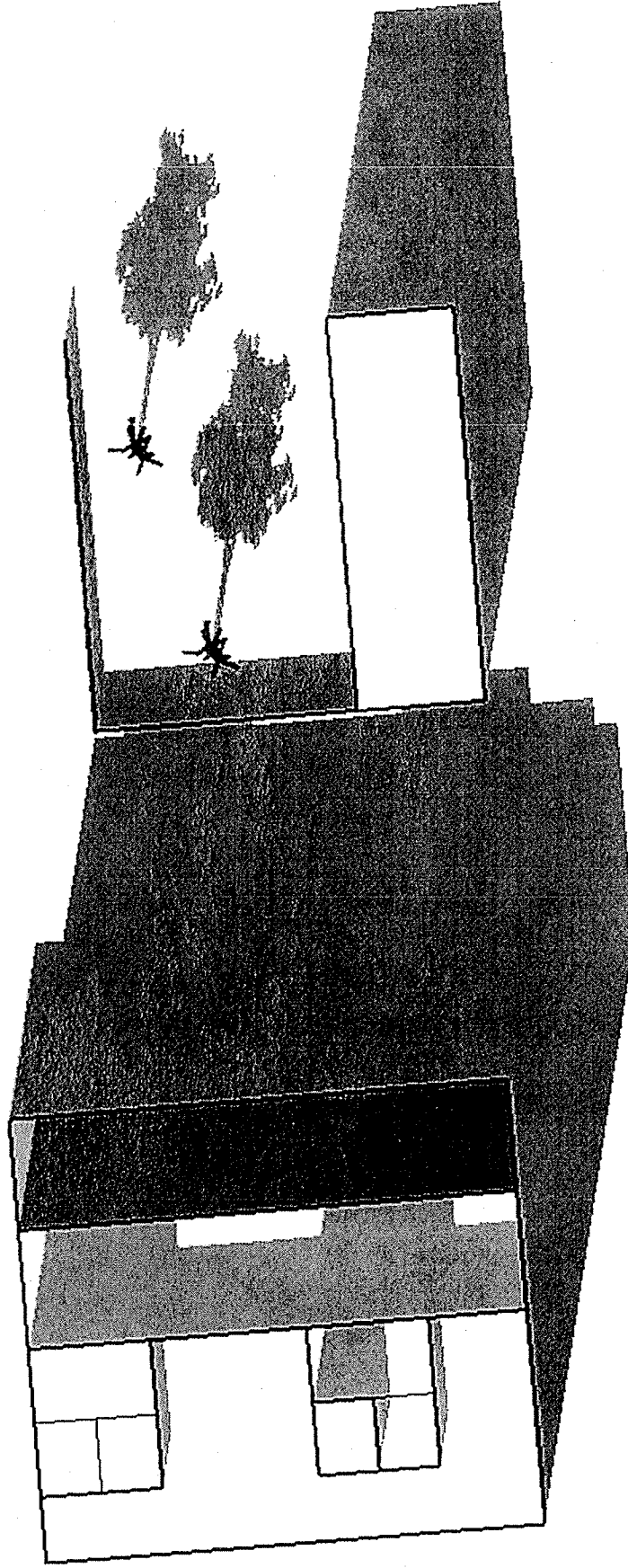
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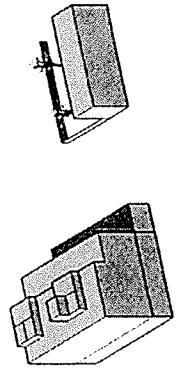
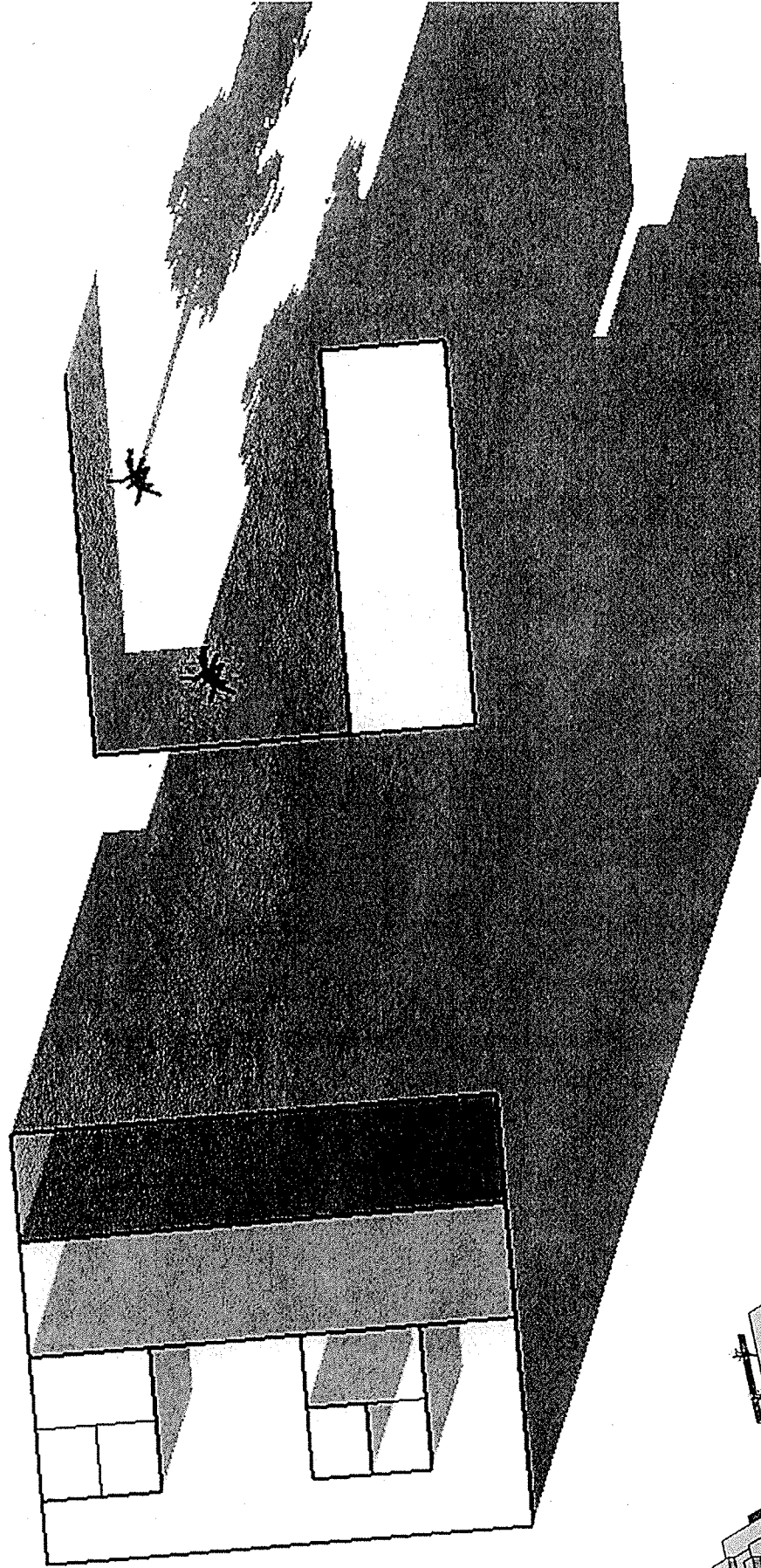
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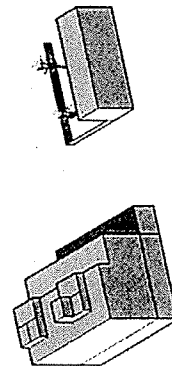
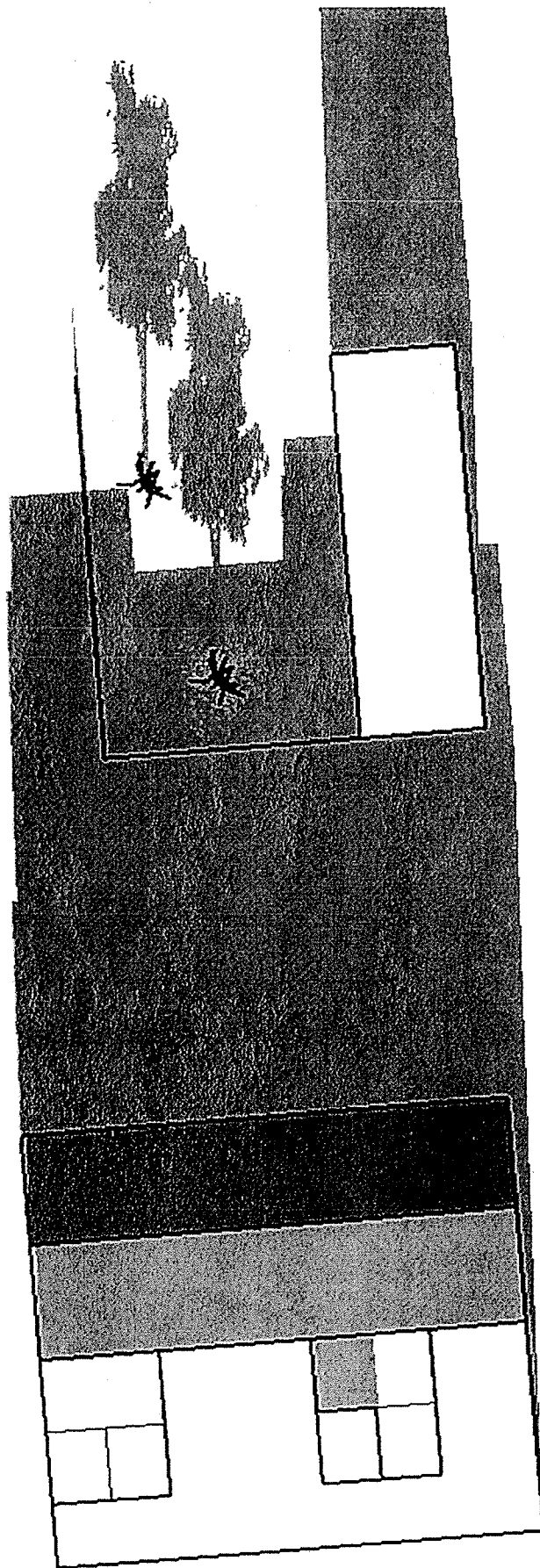
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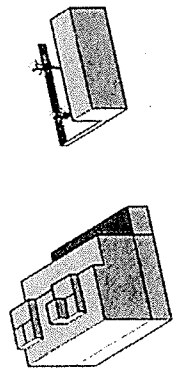
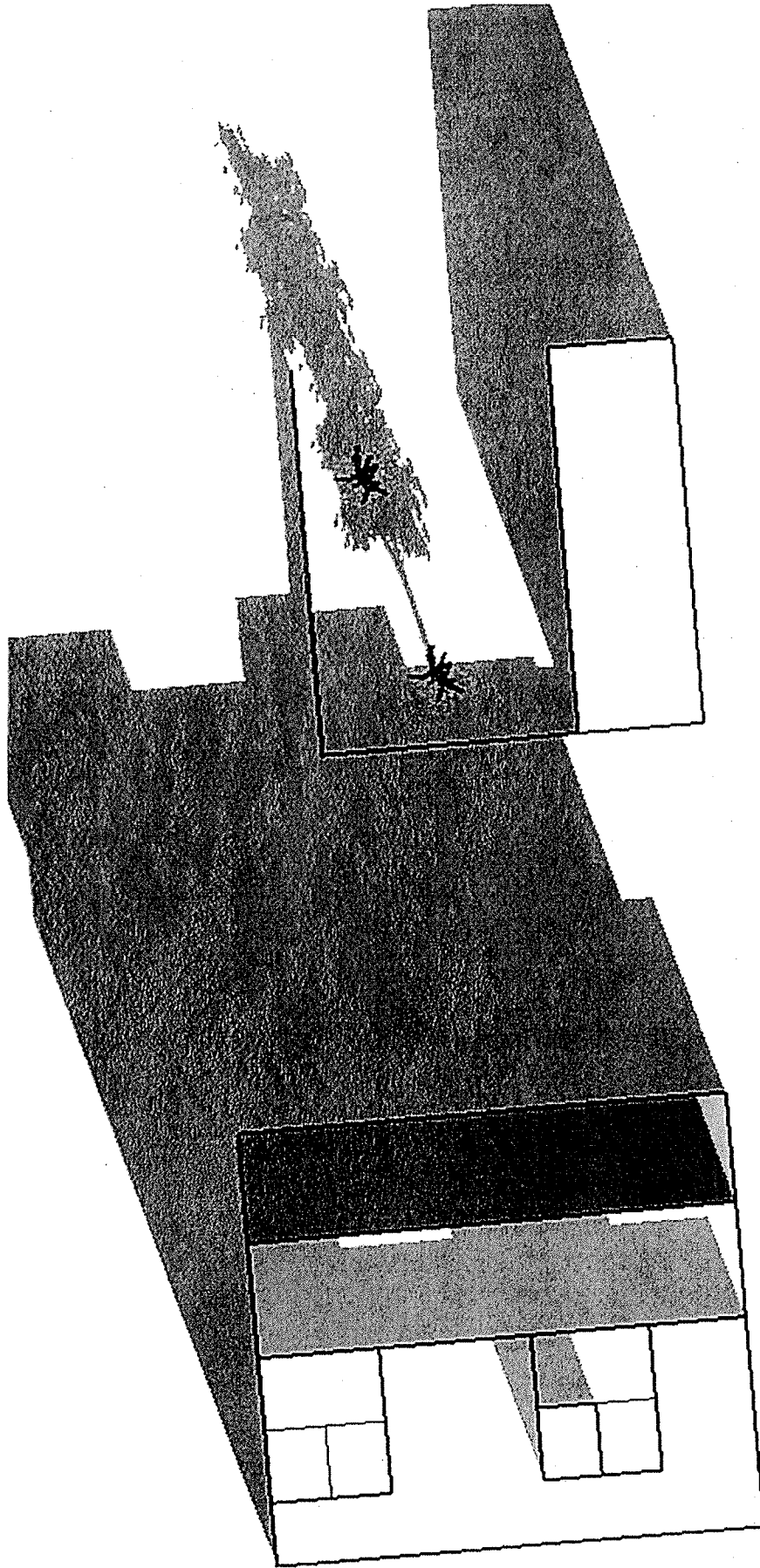
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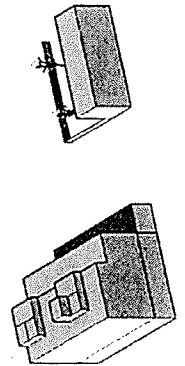
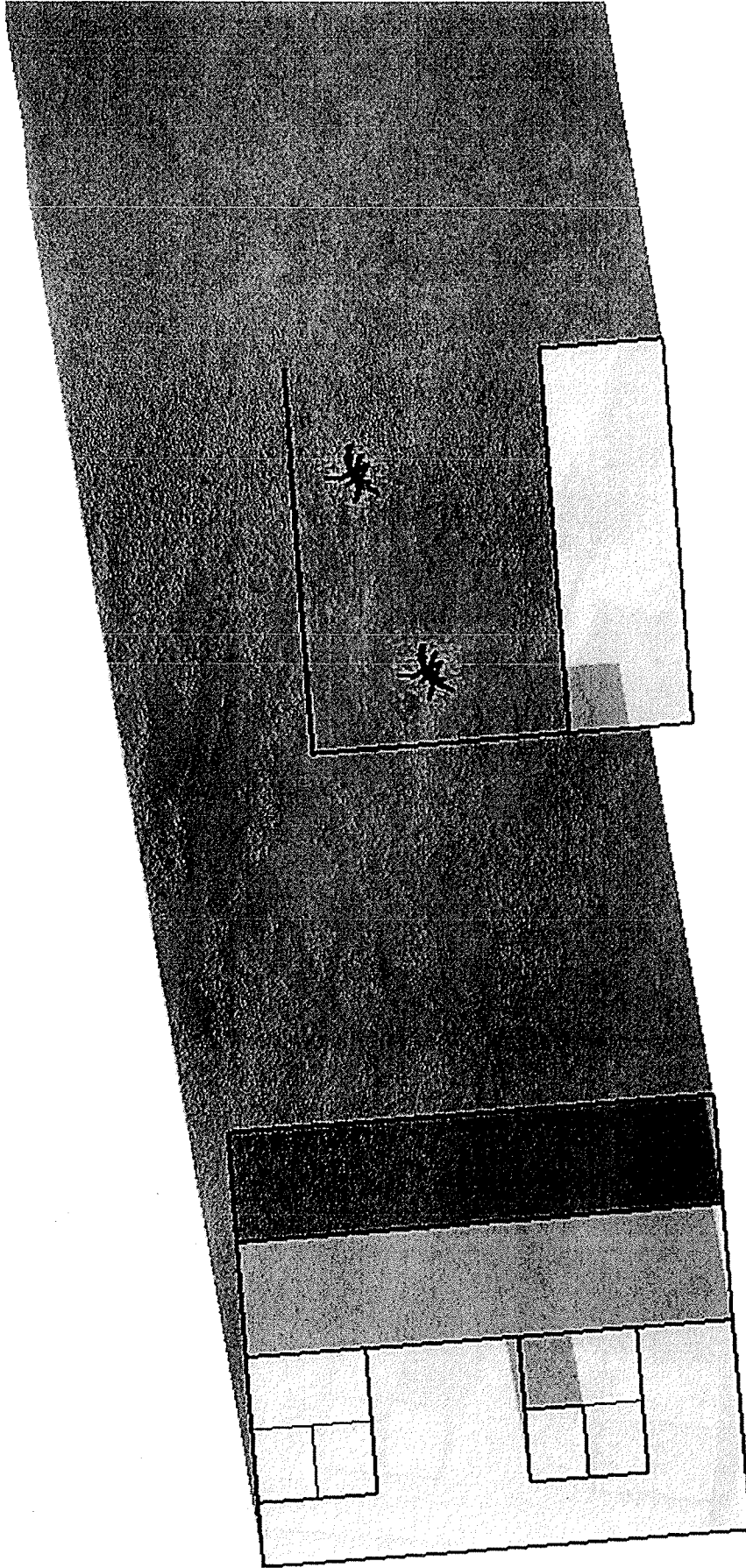
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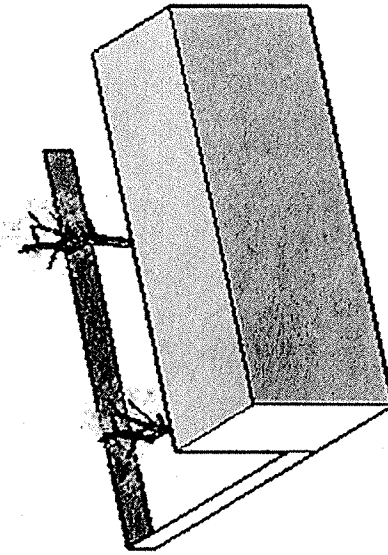
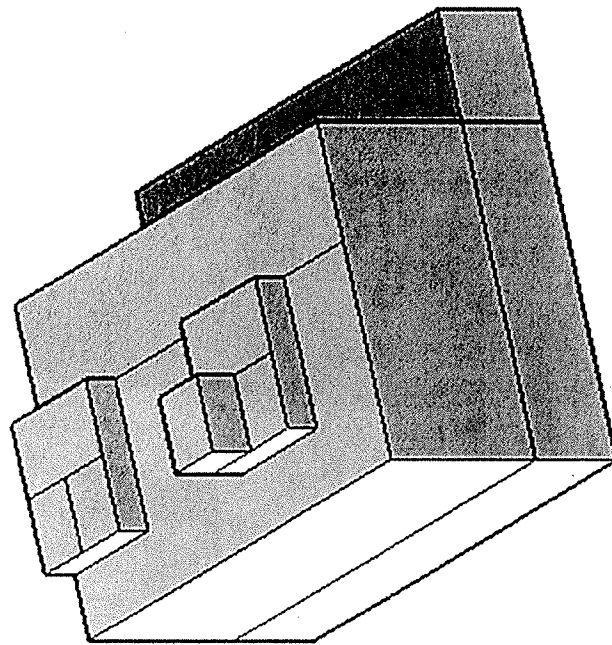
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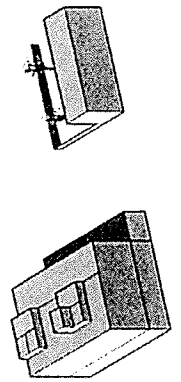
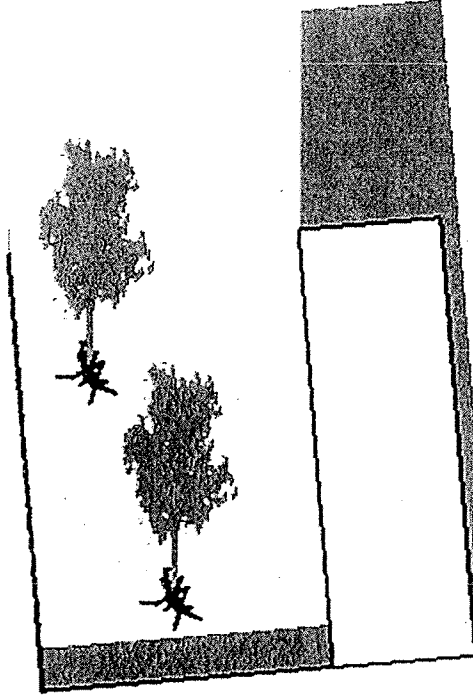
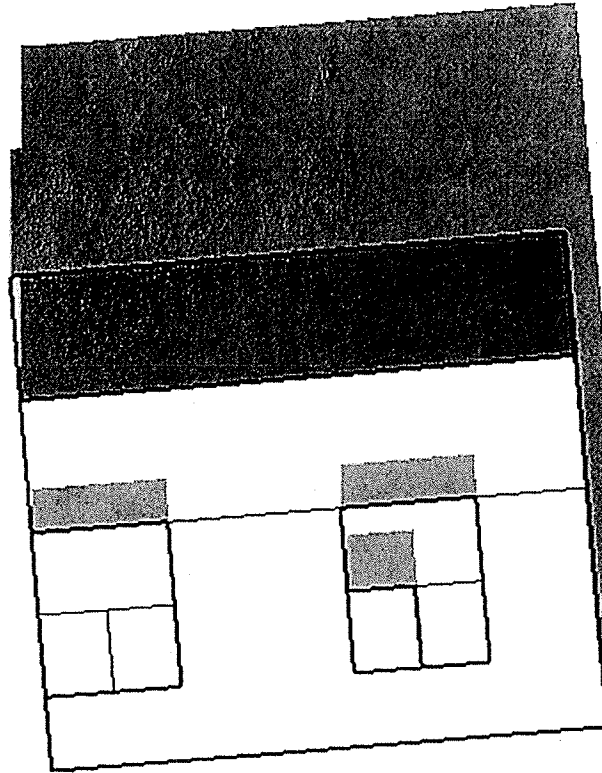
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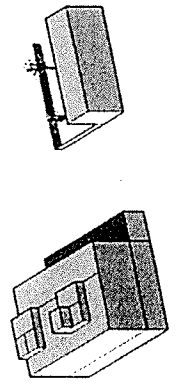
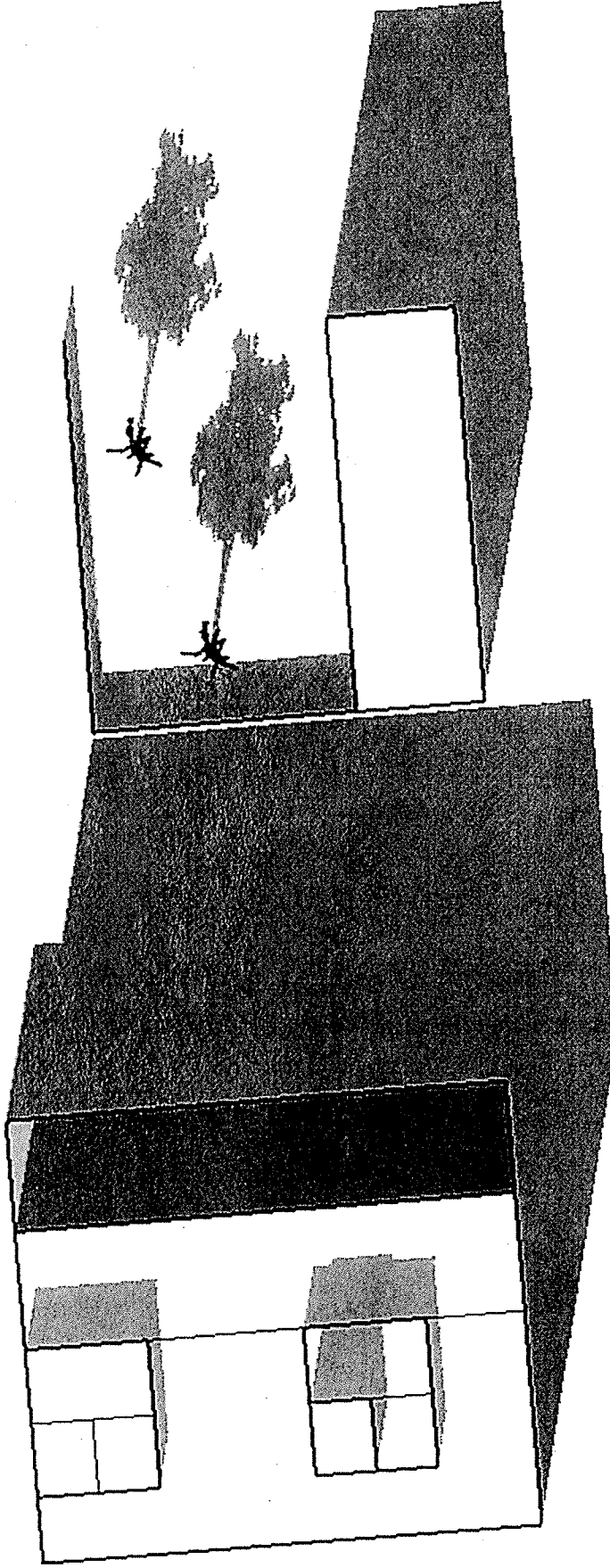
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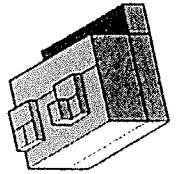
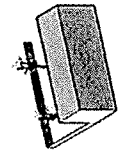
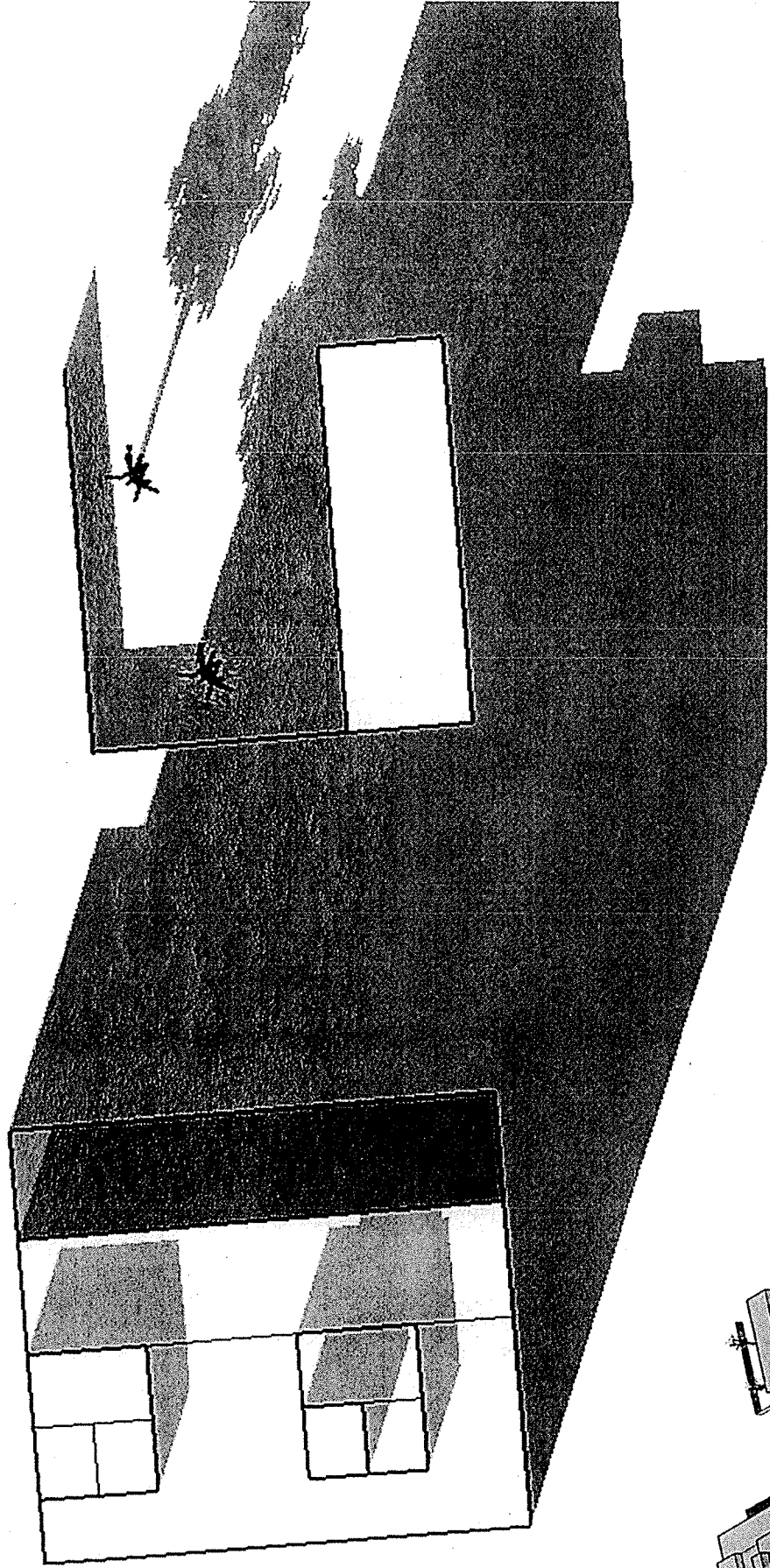
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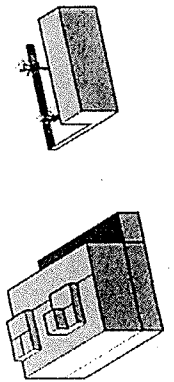
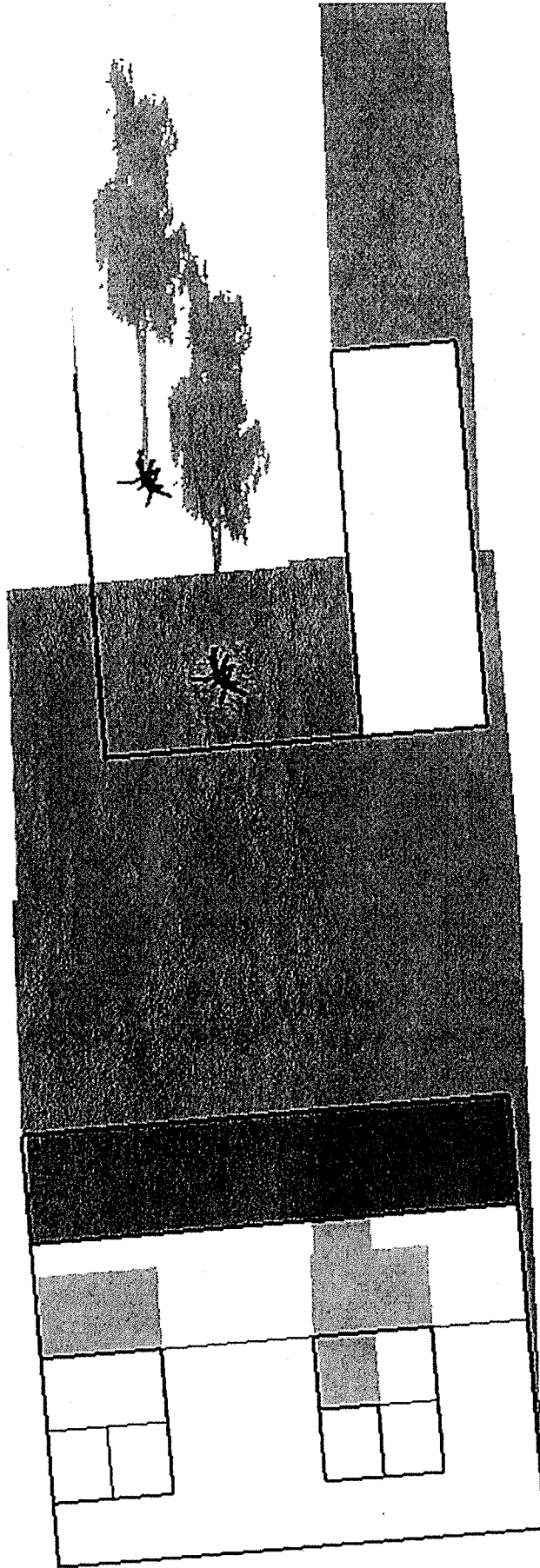
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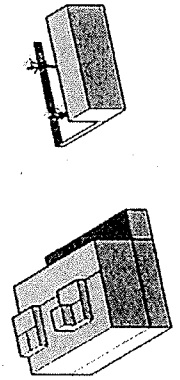
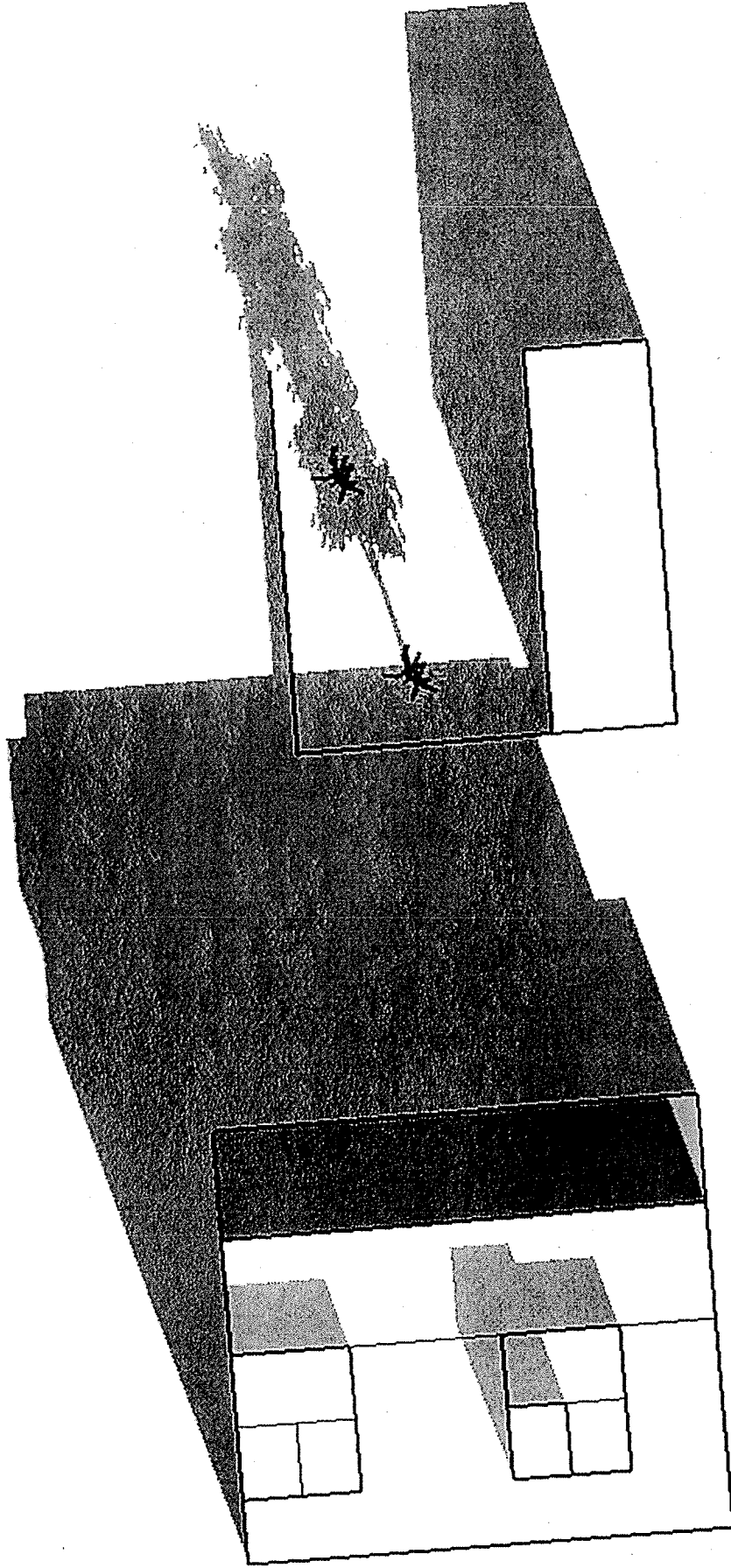
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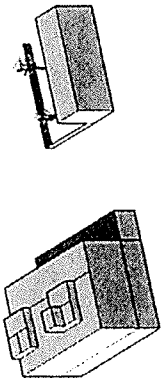
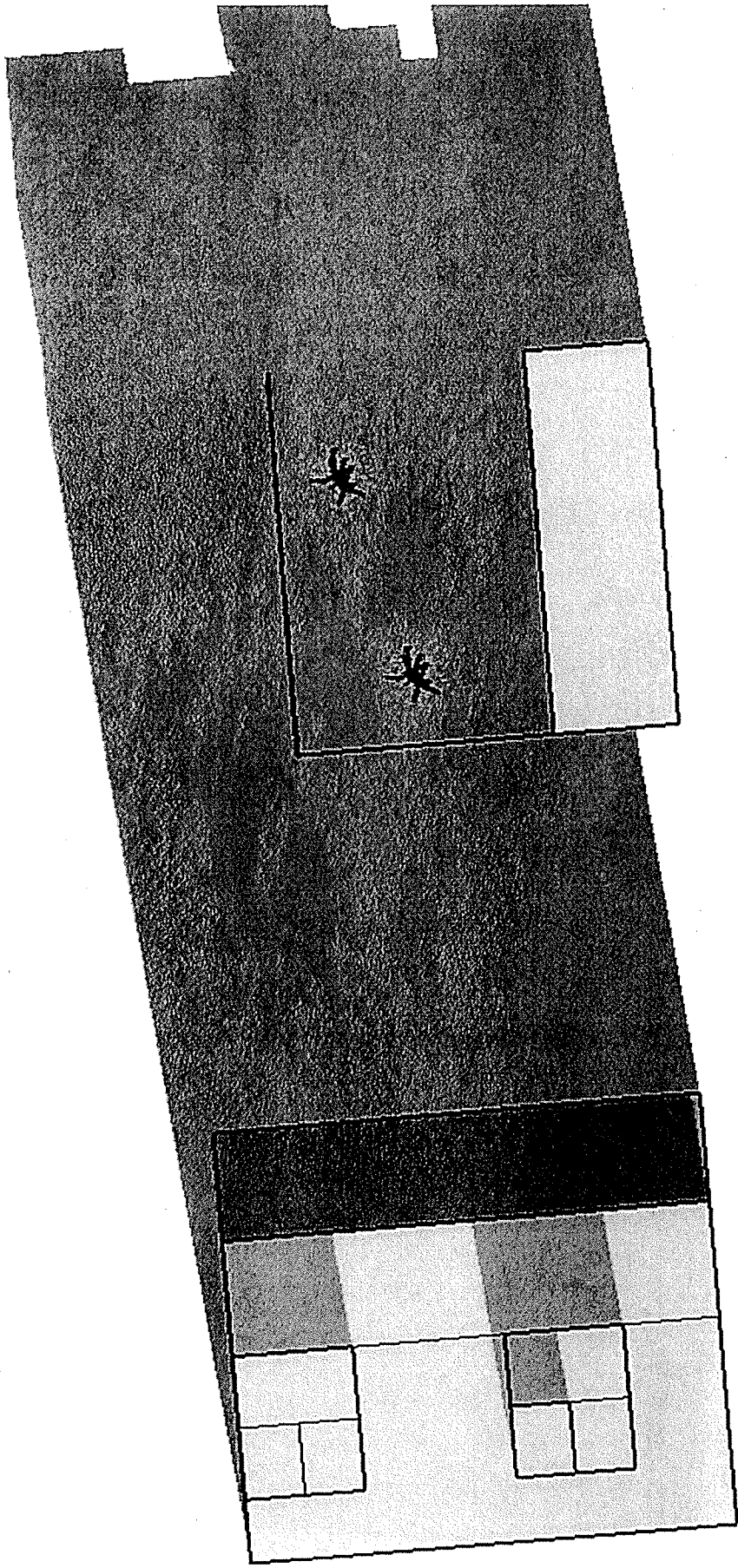
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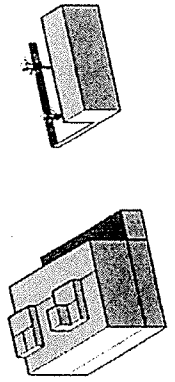
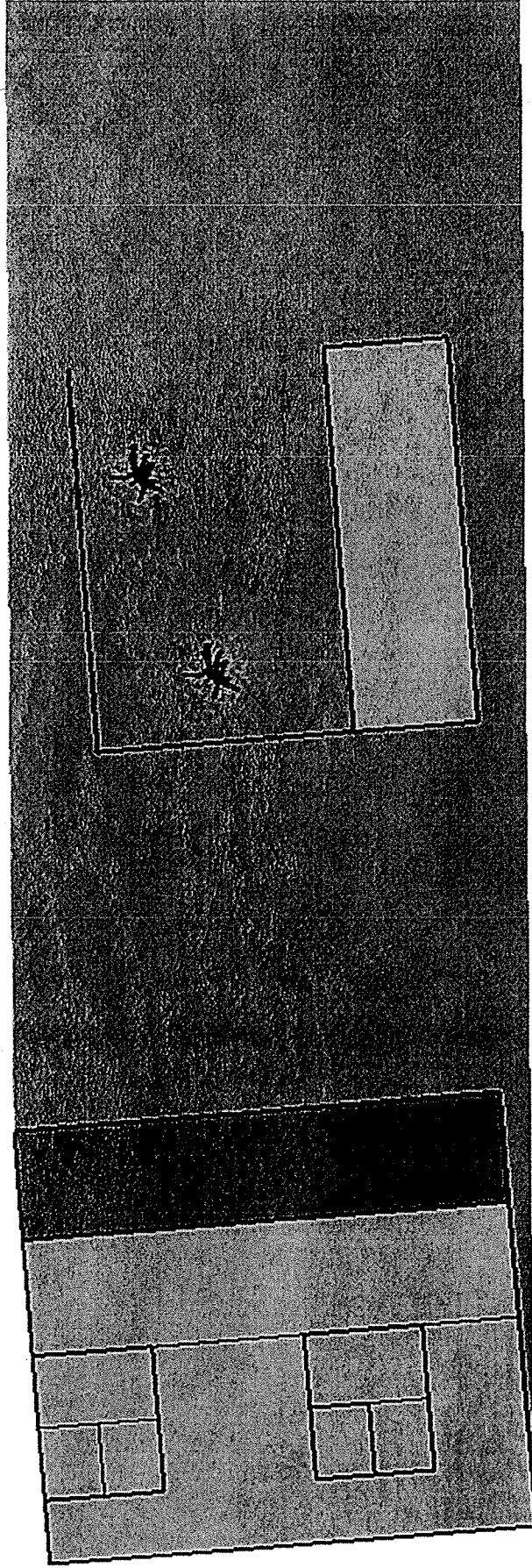
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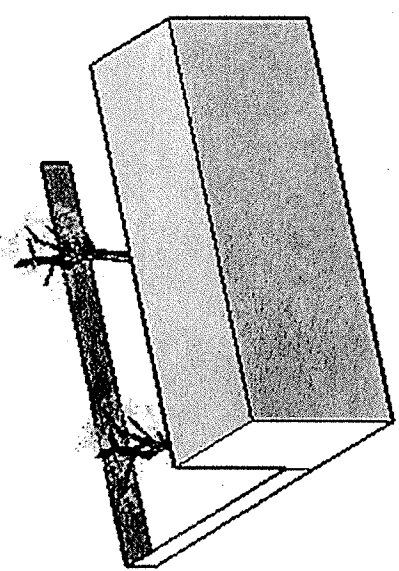
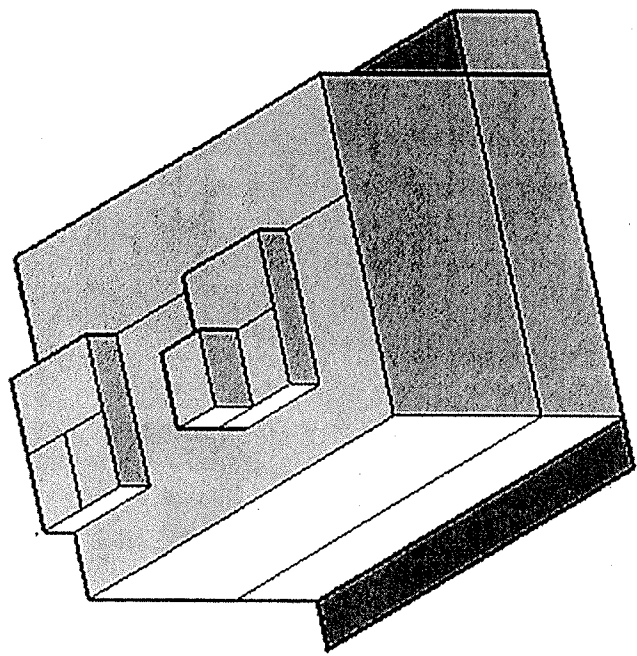
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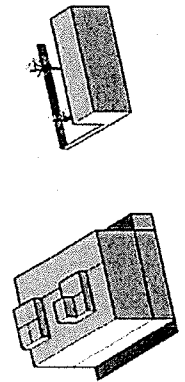
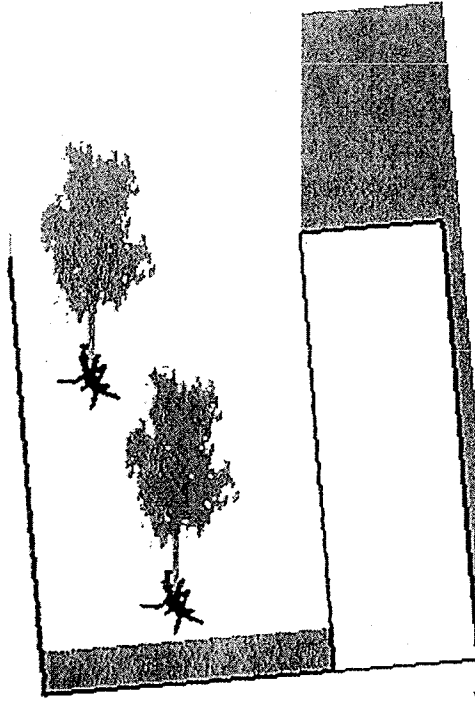
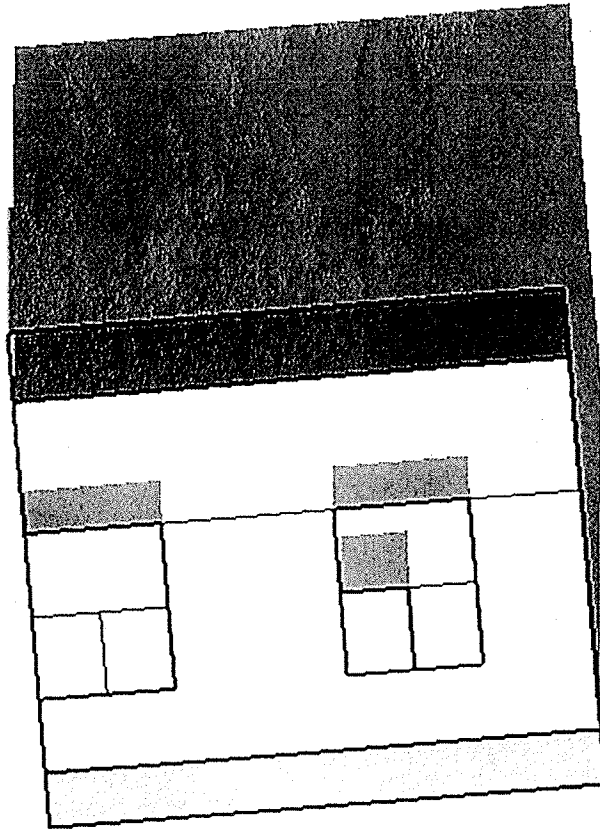
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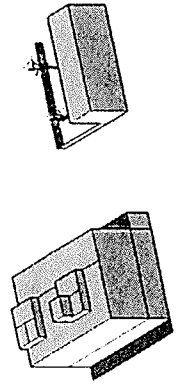
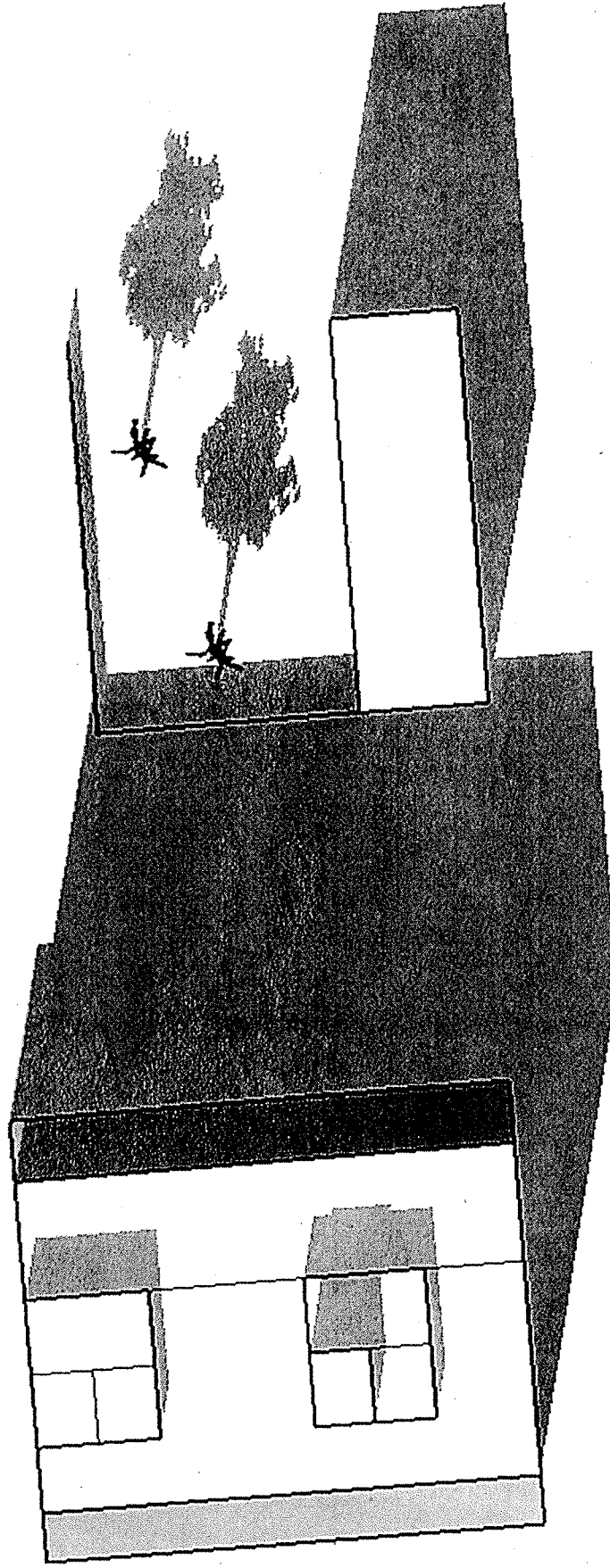
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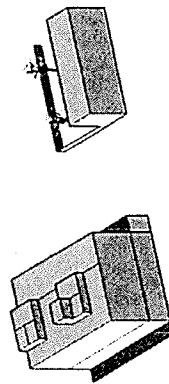
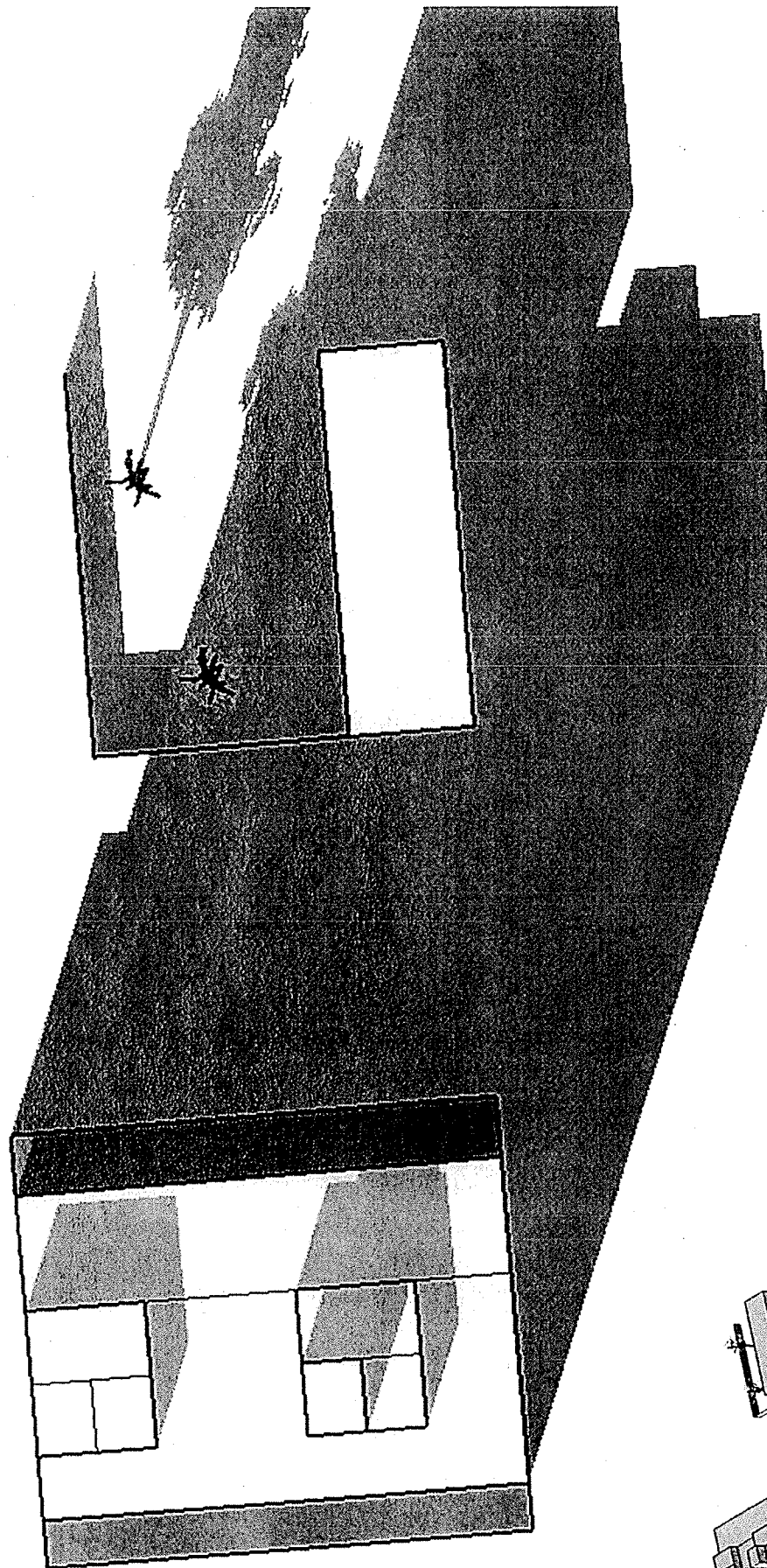
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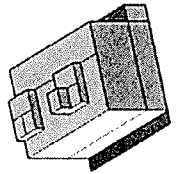
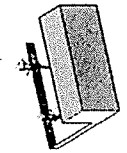
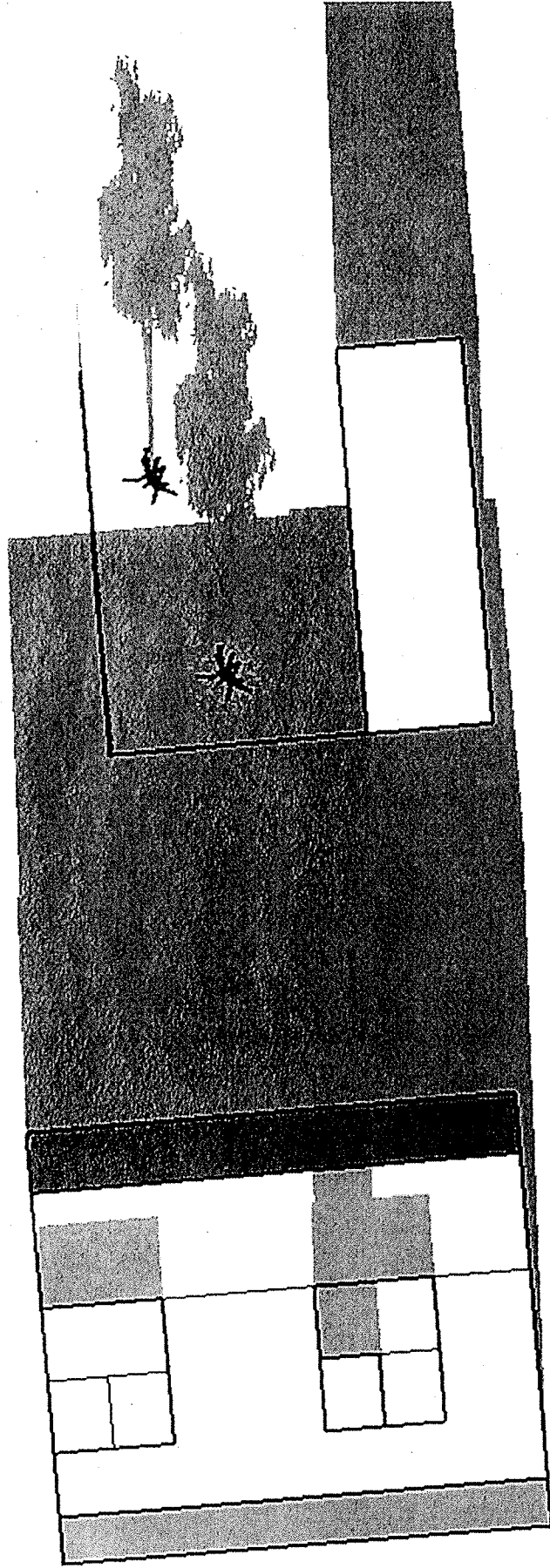
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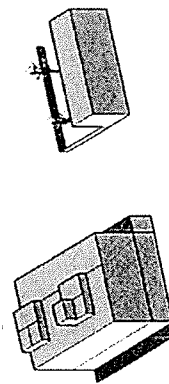
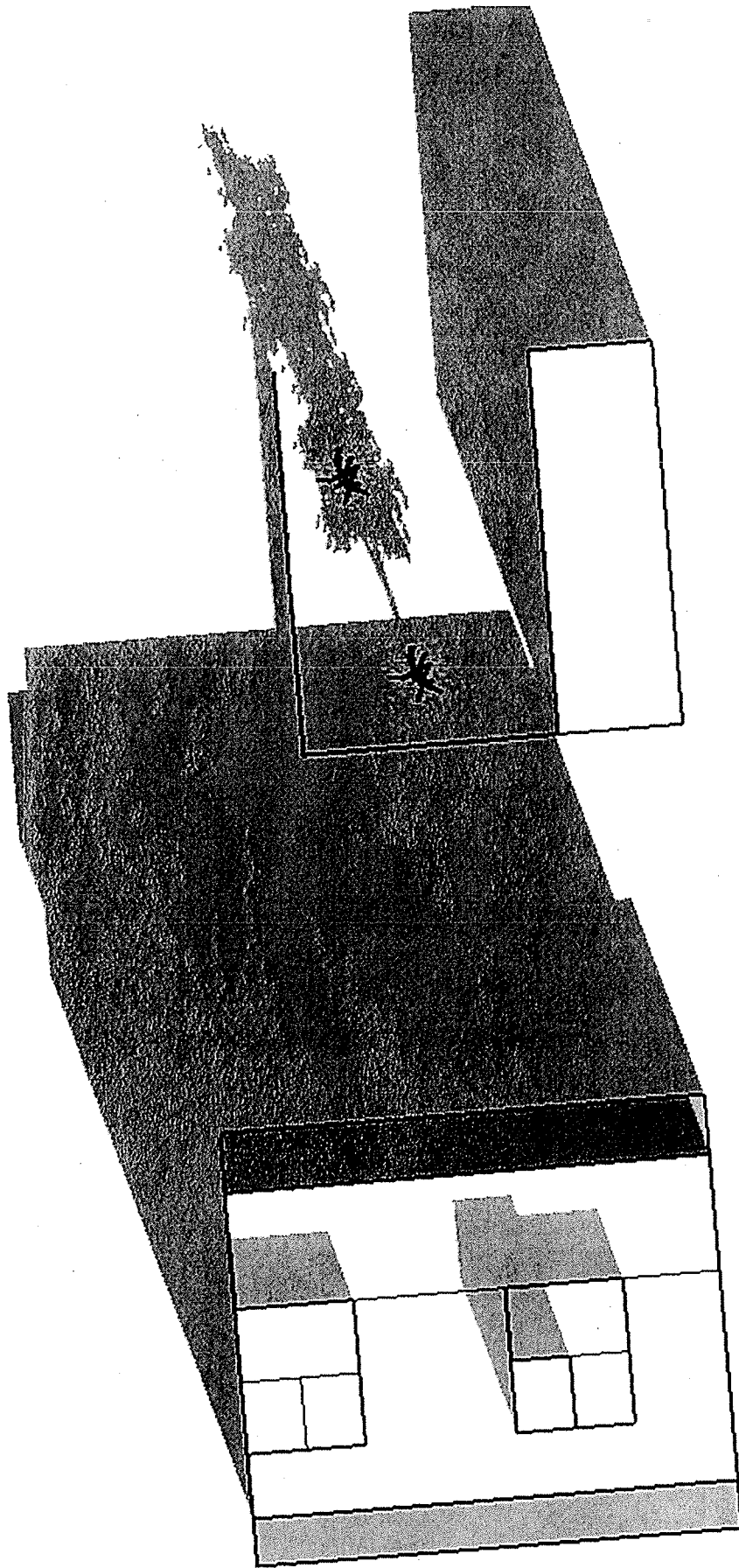
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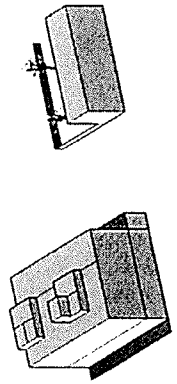
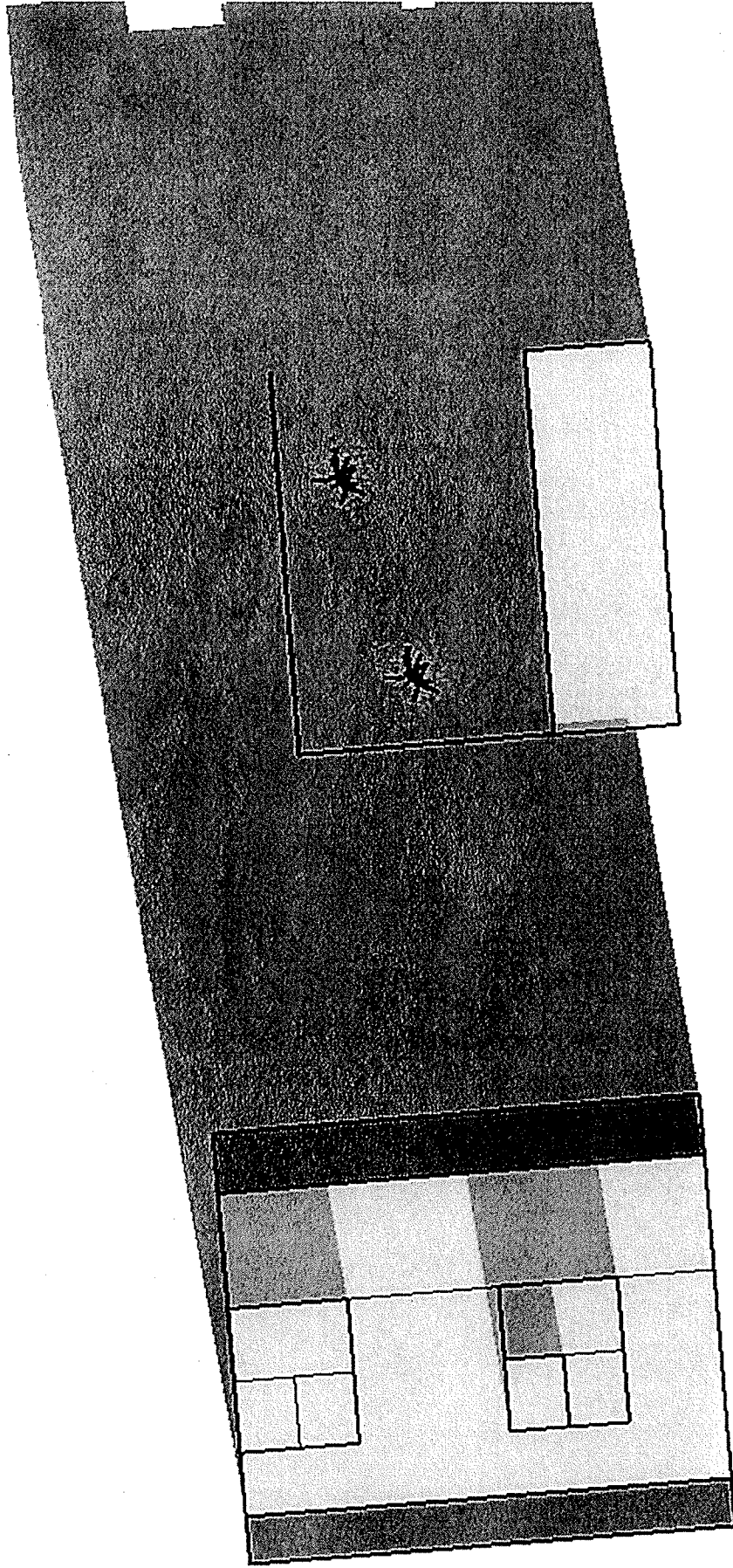
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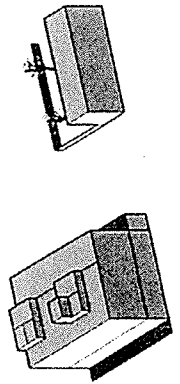
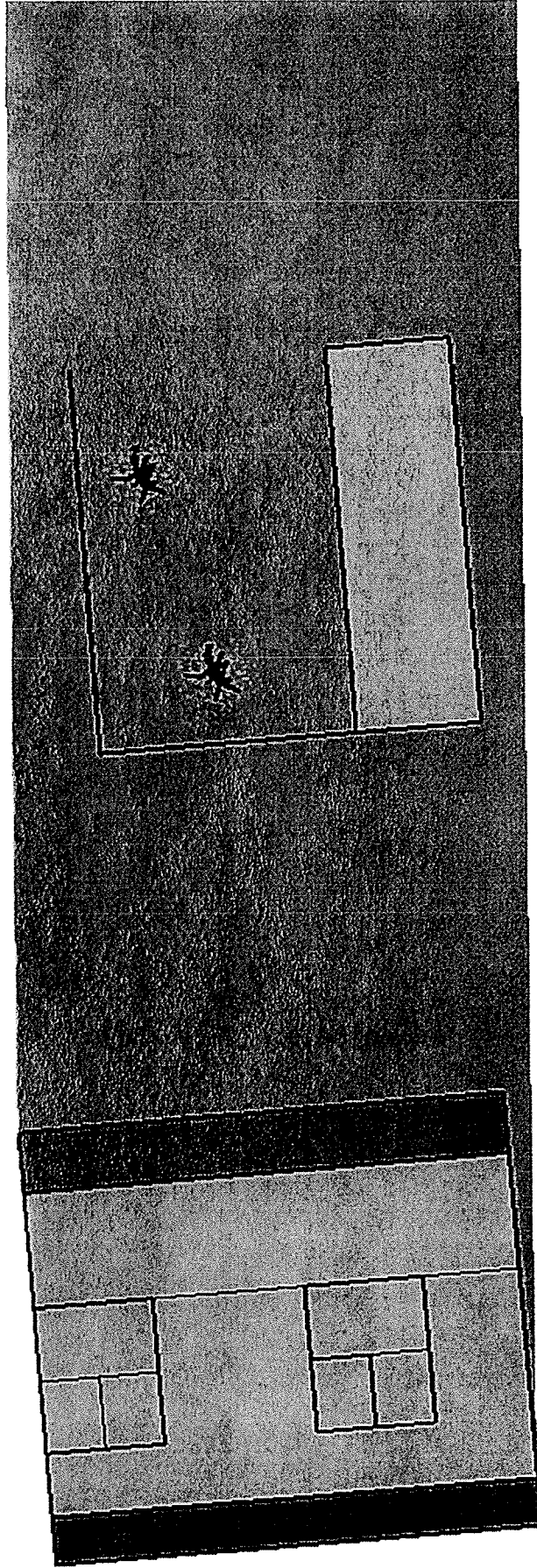
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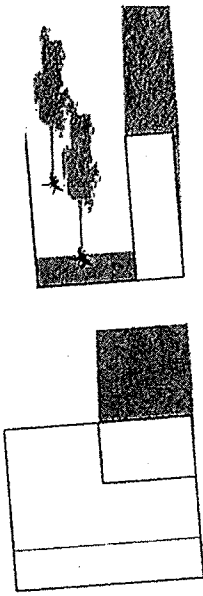
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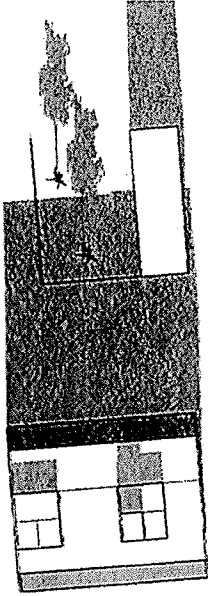


Baseline Scenario and 5 Scenarios on August 21st 5pm

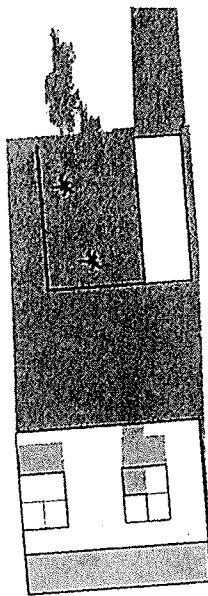
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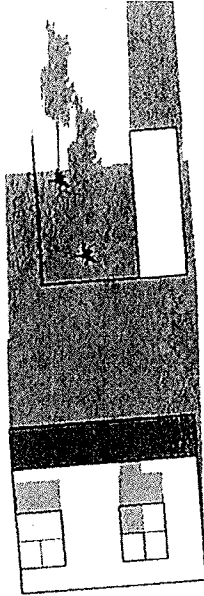
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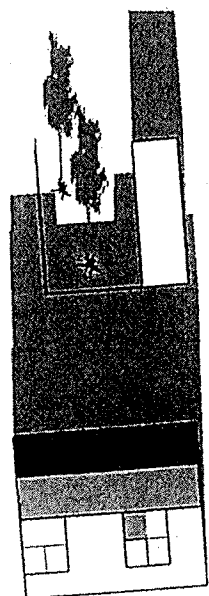
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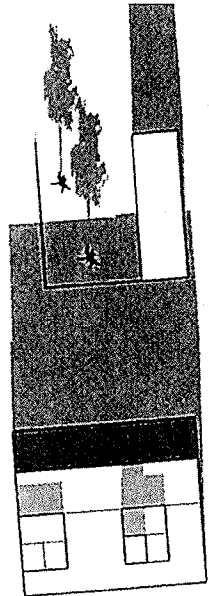
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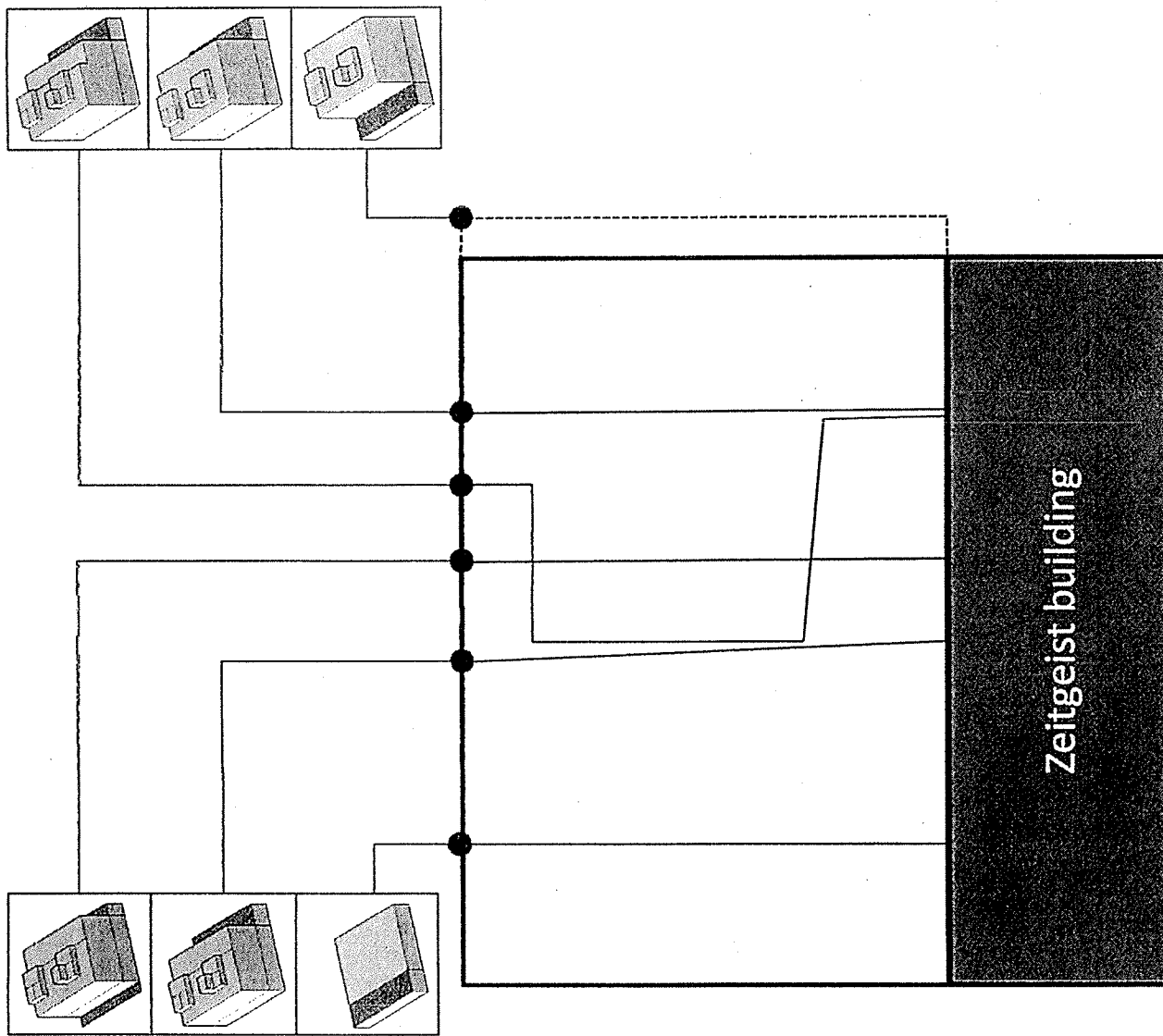
Fig



Fig



Shadow lines on August 21st 5pm



Valencia

EXHIBIT B

Mr. Victor Quan
Valencia Duboce LLC
PO Box 591841
San Francisco, CA 94159
January 3, 2017

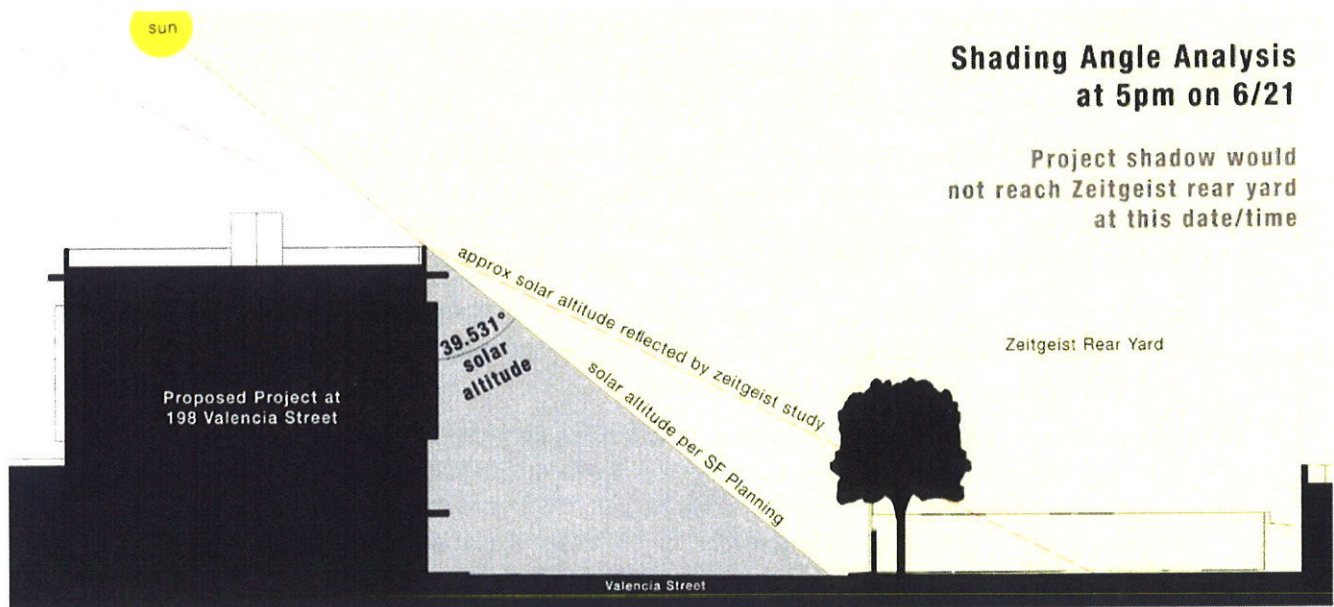
RE: Review of Zeitgeist Shadow Analysis, PreVision Design Shadow findings

Dear Mr. Quan:

Per your request I have reviewed the shading analysis prepared by Manel Heredero on August 12, 2016 depicting the 198 Valencia Street Project's shading effects on the rear yard/beer garden of 199 Valencia (Zeitgeist). Per the cover sheet, the study was intended to show "volumetric alternatives to the current proposed development across Valencia St.", but also depicted shading conditions that would be generated by the project as proposed.

It is outside the scope of this review to comment on the viability of any of the proposed alternatives, but in my review of the shadow study itself, I have the following comments:

1. A review of the shading patterns was conducted and the shadows as shown appear to not reflect accurate solar angles. For instance, on Page 15 the study depicts the shading of the project as designed on June 21st at 5pm, showing shading reaching about midway into the rear yard. Based on a review of solar angles at that day and time, this depiction would appear to be inaccurate. Per the diagram below, shading would not reach the rear yard at that time.



Graphic Showing Solar angles at 5pm on 6/21 vs. Zeitgeist shadow study

2. The massing of the buildings are not dimensioned and no graphic scale is provided. Attempting to scale the images to match aerial photography, it appears that the massing of Zeitgeist and the proposed 198 Valencia Project are approximately correct, though it was noted that the project was placed a few feet closer to the rear yard than it actually would be.
3. The shadow study does not reflect any shading from other existing buildings in the area aside from the fence located on the north and western edge of the space and the building at 199 Valencia Street, nor does the study differentiate between existing and net new project-generated shadow.
4. The model reflects two trees located within the rear yard of Zeitgeist, however the location of the trees as well as their size does not appear to be correct. Based on site observations, there are 4 trees present in the space, and most significantly, a large tree with a dense canopy located between the project and the rear yard has been omitted.
5. The rear yard itself lacks detail, and does not show that approximately 1/4 to 1/3 of the area on the southern side of the space is covered by awnings (and therefore would not be affected by any new shadow).

Overall, I do not find the shading depictions contained within this study to be an accurate or reliable assessment of the actual shading effects of the proposed project based on the factors stated above.

It is also worthwhile to note that the Zeitgeist study's stated intent is to provide (presumably preferred) alternatives to the current proposed development, however the shadows for ALL of the suggested alternatives depicted by the study are actually greater in size than the shadows that would be cast by the project as designed. A markup of the final page of the Zeitgeist shadow study is included as Exhibit A to illustrate this point.

In order to help determine the actual shading effects of the Project on the Zeitgeist rear yard, PreVision conducted a supplemental shadow study at the request of the project sponsor. The methodology employed for this review was as follows:

1. The city-accepted standards for shadow measurement measure the amount of existing vs. net new project shading year-round, starting one hour after sunrise through one hour before sunset. For the purposes of this study, given the area in question is a business which is not open prior to 9am, the starting hour was modified to instead begin at 9 am.
2. Shadows by nature are in constant movement, therefore the unit of shadow measurement is expressed as the area of shadows (in square feet) multiplied by the length time they are present in the space (in hours), called square-foot-hours.
3. The amount of existing and/or net new project shading throughout the year may be expressed as the total square foot hours of shade, however these numbers are typically very large and not particularly informative. The city uses a more helpful metric is to express shading as a percentage of the theoretical annual available sunlight (or TAAS) for a space—in other words—the amount of sun that would fall on a space if there were nothing around it to cast a shadow.
4. Important to note that the depiction of 199 Valencia/Zeitgeist rear yard as shown in the 198 Valencia shadow study (submitted to the city in fulfillment of Section 295 requirements) did not

depict several existing features that contribute to existing shadow in the rear yard and would also serve to capture a substantial portion of the proposed project's shadow, namely:

- a. Four trees, the most sizable of which has a dense canopy and is located directly in between the project and the rear yard. Trees are omitted from consideration in reports filed with the city, however were included in this analysis as they would have a significant impact of the true amount of net new shading by the proposed project.
- b. Approximately 25% of the rear yard (as pictured in the submitted shadow study) is covered by canopies/overhangs along the southern edge of the space. These were not shown by the original report as this space was not an area of focus, but were added for this exercise.

Pursuant to this methodology, the study was conducted with the following findings:

1. The rear yard area of 199 Valencia street was shown to be shaded under current shading conditions 53.34% of the year (as a percentage of the TAAS).
2. The proposed project, if built as designed would contribute an additional 2.06% of shade annually (as a percentage of the TAAS).
3. Minimal project shadow (with respect to size and duration) would fall on the space over the winter months, and new shading would not occur earlier than 5:30pm in the summertime, nor before 3:30pm in the spring and fall.
4. The duration of time when *some* new shading would be present would be between zero and about 2 hours, but on average about 90 minutes.
5. Late April and Mid-August would see the most net new project shading, and on the dates of maximum shadow (April 26/August 16), the net new shadow would account for 4.14% of the total available sunlight for that day.

I hope the preceding information has been informative and is helpful in better understanding the shading effects of the project relative to the 199 Valencia rear yard. Please don't hesitate to contact me with any additional questions.

Sincerely,



Adam Phillips, Principal
PreVision Design

EXHIBIT A

Shadow lines on August 21st 5pm

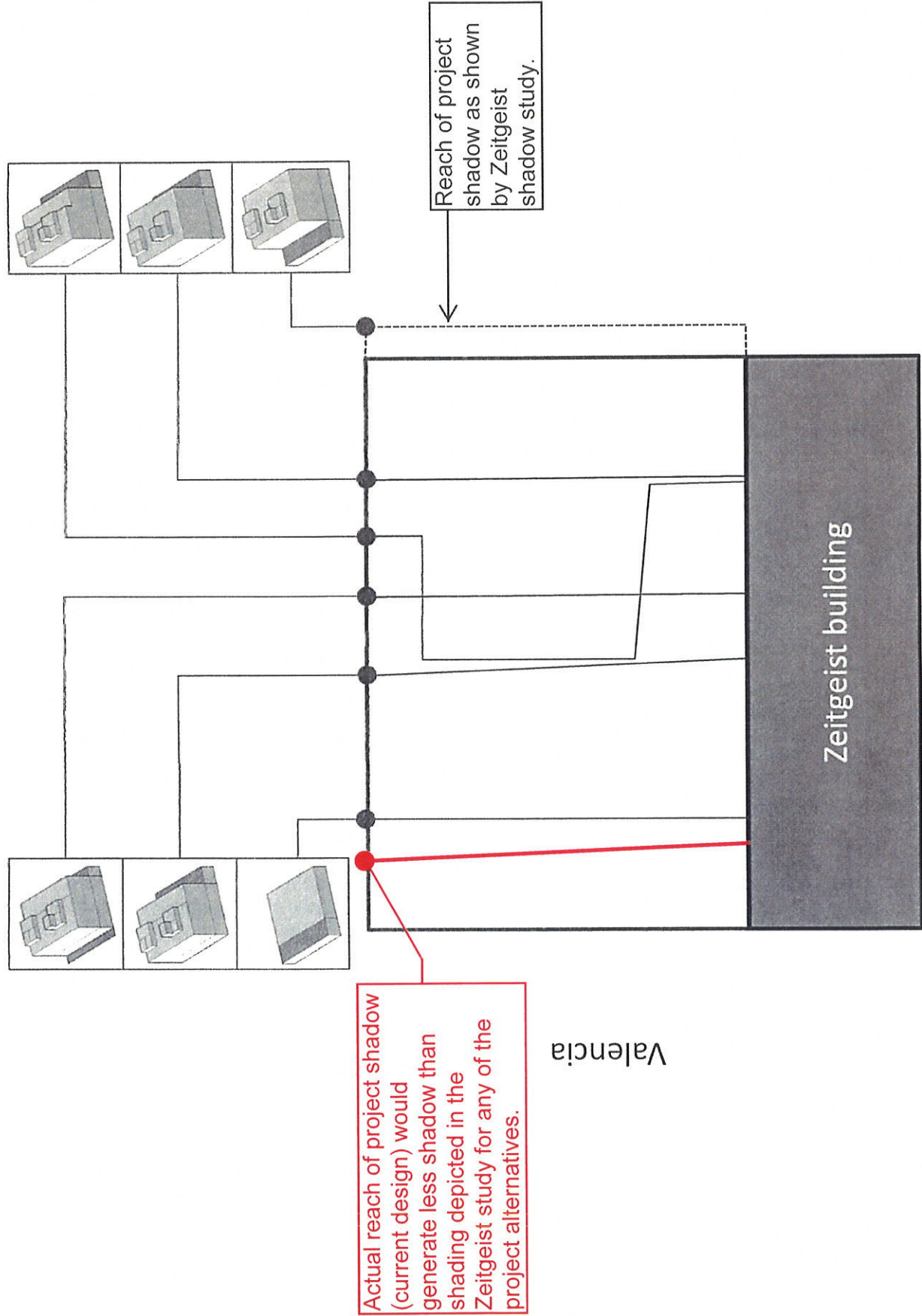


EXHIBIT C



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Zeitgeist, Concerned Over Shadow, Opposing Mission District Housing Project



Zeitgeist's sunny patio. Photo courtesy of Zeitgeist.

By **Laura Werus**

Posted December 21, 2016 11:27 am



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News from Mission Local Business Members

Mission **Mission: Comics**

@MissionComics

Happy 84th Birthday to Stan Lee! Always a character, always selling :~) fb.me/7RskKt6

Back to the Picture

@BacktothePic

Michael Roman, Influential Chicano Stencil Artist, Has Died fb.me/2zwYDrive





A chilly afternoon in the middle of December didn't stop regulars from venturing out onto the patio of one of the Mission's most popular bars, Zeitgeist. But the manager there, Gideon Bush, fears that the shadow cast by a five-story building expected to go up across the street just might.

Bush said the building, a five-story, 28-unit mixed-use building with a ground floor commercial space, will cast a shadow on the beer bar's popular outdoor space during its peak use times — March through October, he said, the shade would cost the bar business.

"We are definitely pro-housing, and we want to work with these developers. We want to find a balance between both of our business interests," Bush said.

Zeitgeist and another neighbor have filed discretionary reviews against the project, meaning it will have to go before the Planning Commission for approval. In the review, the bar's president, Klaus Burmeister, writes that the increased shadow would "impact 30 percent of our annual sales" and ultimately shut down the bar.

"This impact will result in a short run reduction of staff, but in the long run is highly likely to ultimately shutter the business as the sunny beer garden, its prime asset, will be lost," he wrote, adding that he fears for his customers' "loss of privacy" from "roof-top gawkers." He also raised concerns about the "inadequate parking" in the project, which will have 14 parking spots — the maximum allowed without additional review.

Because Zeitgeist is a "world famous San Francisco destination," Burmeister wrote, the bar should be protected and the project's height reduced by two stories.

"Although we understand and support the addition of more housing in San Francisco, we believe this situation is exceptional and extraordinary — and measures should be taken to achieve a compromise to both allow for some new housing, but also to protect this cultural institution."

The bar was added to the city's legacy business registry in October.

Bush, the bar manager, said he has yet to hear a definitive answer from the developer. A developer's representative did not return a call for comment by press time. Bush said the shadow impact was based off of an independent study he commissioned, not the study done by the developer.

Feelings on the patio Tuesday evening were mixed about the prospect of a building going up nearby. A table of regulars playing dominoes voiced dismay — "You mean we won't be able to see the sunset anymore?" and "I wouldn't stop coming here, but it would be a drag," they said.



Feelings on the patio Tuesday evening were mixed about the prospect of a building going up nearby. A table of regulars playing dominoes voiced dismay - "You mean we won't be able to see the sunset anymore?" and "I wouldn't stop coming here, but it would be a drag," they said.



The renderings for the 28-unit project at 198 Valencia St. as seen from Valencia Street

Although there wasn't a clear consensus as to whether sunlight was crucial to patio-drinking, guests did seem to count the fact that an outdoor space exists at Zeitgeist as one of the bar's most important features.

There's a lot of reasons, but that's just the number 1 reason," said Charlotte Welch of the outdoor space. She usually comes in the summer, but with a guest in from Washington, D.C., a visit was in order.

oland Peters took shelter from the cold on the heated portion of the patio. Zeitgeist, he said, is his favorite spot in the city.

It's a bummer in a way, but I would come here either way," he said. "I like the fresh air as opposed to a bar. In a way it would be sad."

ame for Jason De la Cruz, who also said the outdoor space is what distinguishes Zeitgeist

It would change a little bit. It's not like there's a bunch of other tall buildings here. The outdoor space is specific to this place," he said.

is drinking companion that afternoon, Abby, said while shade wouldn't stop her, in San Francisco, warmth is a factor.

t's a nice place to sit in the sun, especially since it's so cold and summers are so short," she said.

Zeitgeist, concerned over shadow, opposing Mission housing project


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Comments

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Newest



PapayaSF Rank 22392

A compromise could be reached, using just a few really large mirrors....

17 hours ago 0 Likes

Like

Share

SFKjeld Rank 21844

Good luck Z. Suspect there will be dark shadow in your future.

18 hours ago 1 Like

Like

Share

ahtsfbmail Rank 10064

Who knew drunks need sun..... the ones I know just need another round.

18 hours ago (edited) 0 Likes

Like | Share

ahtsfbmail Rank 10064

Do people use their patio at night, when it's totally sun less? Is their patio deserted at night, after the sun go's down? No, case closed. Build it now.

18 hours ago (edited) 2 Likes

Like | Share

myview4u Rank 12753

World famous ... thanks for the laugh.

21 hours ago 2 Likes

Like | Share

Yrmama Rank 7854

Flag

There are only a handful of bars in SF with sunny outdoor terraces, would be a big shame if Zeitgeist lost this.

21 hours ago 0 Likes

Like | Share

ahtsfbmail Rank 10064

©Yrmama

You can still get your sun at the lovely and very expensive McCoppin hub, just down the block.

18 hours ago (edited) 0 Likes

Like | Share

TheLiberatingOne Rank 8702

Tough Shite NIMBY!!

22 hours ago 4 Likes

Like | Share

malcolmketterin Rank 19215

If you want sun, move to Oakland.

22 hours ago 4 Likes

Like | Share

Rat-a-tat-tat Rank 19058

Dear Zeitgeist,
Welcome to the new San Francisco. It's a place where the only thing that matters is money. You're actually fairly lucky that the owner of the building doesn't turn you guys out.

Isn't this such a nice city we've created for ourselves? Oh, yes, of course we need more housing. Of course we do. So, we'll just put in some million dollar condos. That will solve the issue, won't it? Hey, maybe a few of the bartenders can score their each own individual condo! Especially based on... » more

23 hours ago 1 Like

Like | Share



mrburns Rank 14551

Flag

F--- those elitist pricks. SF needs housing. Zeitgeist is the most profitable bar in California. Instead of getting your panties in a bunch, buy the plot of land across from the bar if it annoys you.

23 hours ago 5 Likes

Like | Share

malcolmketterin Rank 19215

@mrburns . yes, what you said.

23 hours ago 1 Like

Like | Share

speedbump5000 Rank 18484

Zeitgeist is a "world famous San Francisco destination"... ummmm nope

23 hours ago 6 Likes

Like | Share

Yrmama Rank 7854

Flag

@speedbump5000 Um, yes actually it is... Maybe not in your circles.

21 hours ago 0 Likes

Like

Share

hank_chinaski Rank 35312

@Yrmama, The fisherman's wharf of hipster bars! Worst bartenders of San Francisco. Place sucks!!

16 hours ago 2 Likes

Like

Share

Hapoo Rank 4020

Maybe they could move to the roof of the new building. Who would have guessed that a bar in the middle of a tall city would pin all of their hopes on a outdoor "sunny" beer garden.

23 hours ago 5 Likes

Like

Share



JaimeRobertoJr Rank 8777

"We are definitely pro-housing", just somewhere else. That's one reason why housing is so expensive.

23 hours ago 6 Likes

Like

Share



PaulVonVonyer Rank 9787

No more I say Gentrification!

23 hours ago 0 Likes

Like

Share



centjer Rank 12577

I found this article that had me laughing. If you don't want to read the whole list, Zeigzeit is number 13.

<http://www.complex.com/pop-culture/2014/05/25-douchiest-bars-in-san-francisco/zeitgeist>

Oh yeah, I find it more than a little ironic that a bar like Zeigzeit, whose owner and clientele like to do whatever they please and tells everyone else to mind their own business, is now telling other people what to do with their own business, because y'know...sunlight.

1 day ago 6 Likes

Like | Share



twobe1 Rank 5063

Can't fix one problem by creating another.

1 day ago 0 Likes

Like | Share

ahtsfmali Rank 10064

If they really cared about "sun", they would have taken down the ugly billboard that towers 4 stories over the patio, from the 3rd story of their building. This billboard blocks the sun and houses no one. But they value the easy ad money the billboard brings in for them, way more than any "sun". They also have really big trees where the building would cast a shadow, that already blocks sun.

1 day ago 5 Likes

Like | Share



ezeff Rank 5548

I think the noise and pollution from the cars on the street could hinder business. Close that off too while you're at it.

1 day ago 4 Likes

Like | Share

Dont_Blame_Me_I_Voted_For_Bernie Rank 8485

Don't worry, if the development goes up the new tenants will fight to close the bar. It amazes me all these idiots from other parts of the country move to the big city and expect the peace and quite of their small rural towns...

1 day ago 8 Likes

Like | Share

Red X Rank 17232

"Cultural institution???" I guess; as long as you're not a conservative, in which case one would conclude, it's not a "cultural institution."
It's a liberal institution that disallows free speech from conservatives.

1 day ago (edited) 1 Like

Like | Share

Rat-a-tat-tat Rank 19058

@Red X "It's a liberal institution that disallows free speech from conservatives."

How so?

23 hours ago 1 Like

Like | Share

Yrmama Rank 7854

Flag

@Red X WTF? It's a dive bar, dude. Calm down.

21 hours ago 2 Likes

Like | Share

SQLGeek Rank 12729

SF gets a handful of sunny days during the summer. Wasn't there just a single day over 70 last summer? And they're bitching about a building blocking the sun? Lol.. you just can't make this chit up..

1 day ago 5 Likes

Like | Share

Dont_Blame_Me_I_Voted_For_Bernie Rank 8485

@SQLGeek Apparently you're not from SF, because you're completely wrong. There were several days over 70, and even if that weren't the case people like sitting in the sun hence the popularity of Zeitgeist.

1 day ago 4 Likes

Like | Share

Rat-a-tat-tat Rank 19058

@SQLGeek "Don't Blame Me..." is correct. Zeitgeist gets plenty of sun. That's why they have an outdoor seating area. Pretty basic stuff here; disappointed you couldn't grasp that simple concept. 150 years ago it was one of the more desirable places to live, out toward or in the Mission, because it was... wait for it... warmer there.

Peace out, please do come play again.

23 hours ago 2 Likes

Like | Share

arik Rank 25542

Think a little bigger and get the developer to let you open a beer garden on the roof. Get a waiver from the city to do so. we need the housing

1 day ago 1 Like

Like | Share

Zeitgeist Fears 28 New Valencia Street Condos May Cast Shadow On Its Future

Wed. December 21, 2016, 8:45am



by [Allie Scerrato](#)
[@editcatsf](#)
[website](#)



neighborhoods
[Mission, SoMa](#)



location
198 Valencia St, San Francisco,
CA



In December 2013, developers proposed a condominium complex to replace the one-

Wed, December 21, 2016, 8:45am

In December 2013, developers proposed a condominium complex to replace the one-story warehouse at 198 Valencia St. that currently houses auto shop **Oil Changers**—and is directly across the street from **Zeitgeist**.

As **SocketSite** **reported** this summer, plans for the five-story, 28-unit mixed-use development fulfill the requirements of the **Market and Octavia Plan**, allowing the project to forgo a lengthy environmental review process, and possibly a Planning Commission hearing as well.

However, the team at **Zeitgeist** isn't pleased with the plans and has requested a discretionary review, forcing the project sponsor—**Sternberg Benjamin Architects**—to face the Planning Commission next month.



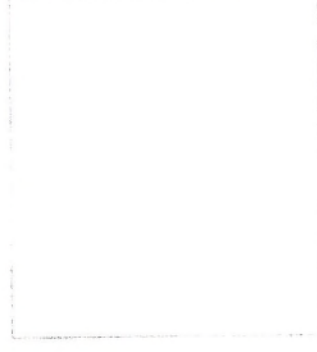
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The primary concern for the team at Zeitgeist, which received legacy business status this fall, is the shadow the new development might cast on their popular beer garden. Gideon Rush, operations and general manager at Zeitgeist, says that as currently



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location
198 Valencia St, San Francisco,
CA



The primary concern for the team at Zeitgeist, which received legacy business status this fall, is the shadow the new development might cast on their popular beer garden. Gideon Bush, operations and general manager at Zeitgeist, says that as currently designed, the new building could negatively impact business in the beer garden, forcing the company to restructure.

"We are an institution. We employ about 45 people in the city, and we want to continue to do so," says Bush. "This proposed development threatens the livelihood of everyone here at Zeitgeist."

According to the project's Community Plan Exemption Checklist, some surrounding properties—including Zeitgeist's patio—will receive "some additional new shadow by the proposed project if constructed as proposed."

The shadow analysis concludes that Zeitgeist's patio, in particular, would receive new shadows from 6-7pm during the summer solstice and from 5-6:06pm in the fall.

"While shadow on private property may be a concern to nearby neighbors, it is not considered a significant impact under CEQA [California Environmental Quality Act]," Planning's analysis states. "Therefore, the proposed project would not have any significant impacts related to shadow."



Planning's analysis states. "Therefore, the proposed project would not have any significant impacts related to shadowing."

Wed. December 21, 2016, 8:45am



by Aliia Scerrato
@editcatsf
website



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CA



Zeitgeist's beer garden. | PHOTO: RICK MARR/HOODLINE

Despite the city's position, Bush says the Zeitgeist team has been asking the developers to revisit their design, with the goal of eliminating shadowing on the beer garden.

Zeitgeist's beer garden. | PHOTO: RICK MARR/HOODLINE

Despite the city's position, Bush says the Zeitgeist team has been asking the developers to revisit their design, with the goal of eliminating shadowing on the beer garden.

"We have proposed a few different design changes," he said. "They are currently looking at them, but we have yet to hear back. We just hope that they seriously consider that impact, and we feel they are not doing that right now."

One design alteration that could potentially help, Bush says, is offsetting the building from the street. Right now, the plans have the building right up against Valencia and Duboce, he says.

"We are not trying to shut down their development," he adds. "We are just hoping to find an equal balance, where they are still happy with their investment, and we are not taking a substantial hit in our sales due to the shadows from this building."



by [Alisa Scarrato](#)
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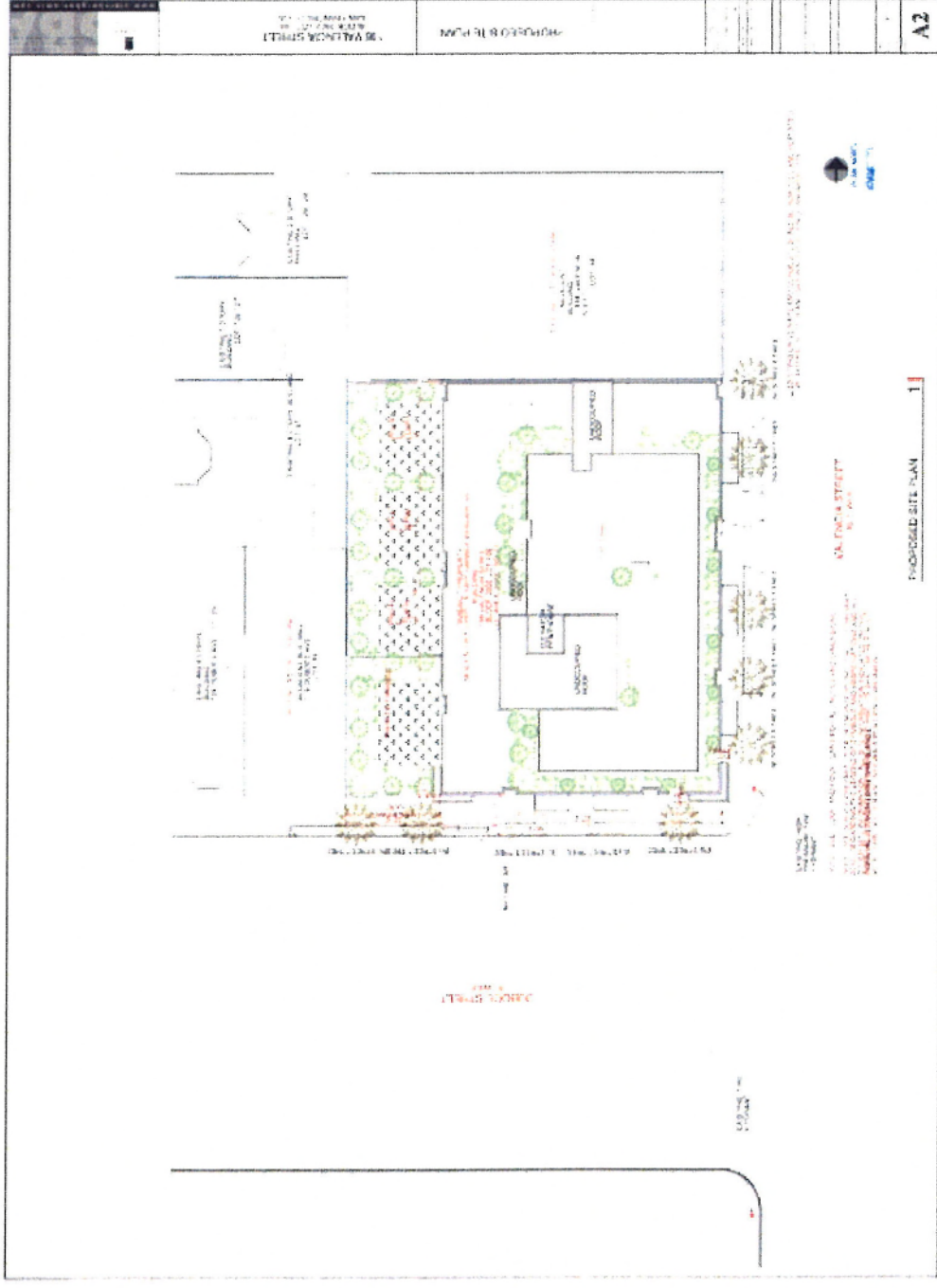
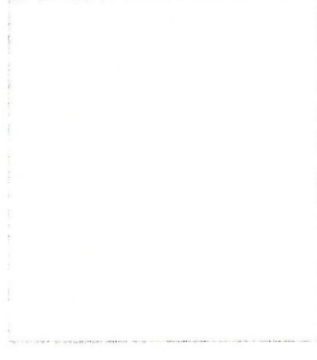
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The proposed site plan, submitted to Planning in 2013, for 198 Valencia. | IMAGE: STERNBERG BENJAMIN ARCHITECTS VIA SF PLANNING

According to Planning Department archives, Zeitgeist isn't the only neighbor hoping to

According to Planning Department archives, Zeitgeist isn't the only neighbor hoping to protect its investment. Duboce Street property owner Richard Krooth filed a discretionary review application the same day as Zeitgeist, also stating concerns about shadowing of his and other neighboring properties.

As proposed, the project "will place Krooth's adjacent two-story building located at 118-120 Duboce in permanent shadows, dark and dank..." and eliminate its view to the east, he writes.

The project's shadow analysis also confirms that the proposed development would cast new shadows on the [SOMA West Dog and Skate Park](#). Per the shadow analysis, the building is expected to increase the dog park's annual square-foot-hours of shadow by 1.07 percent, and the skate park's annual square-foot-hours of shadow by 0.02 percent.

Typically, Planning Code prohibits structures over 40 feet in height to "cast additional shadows on open space under the jurisdiction of the San Francisco Recreation and Park Commission between one hour after sunrise and one hour before sunset, at any time of the year, unless that shadow would not result in a significant adverse effect on the use of the open space."

But since SOMA West Dog and Skate Park is not under the jurisdiction of the Rec and Parks Commission, it's not protected by this rule.



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"Because the park was constructed in an area that is shaded most of the time, it is reasonable to conclude that the use and enjoyment of this park is not dependent on access to sunlight." Planning concludes. "Thus, the proposed project's incremental contribution to shadow at the SOMA West Dog and Skate Park would not substantially affect the use and enjoyment of this outdoor recreation facility."

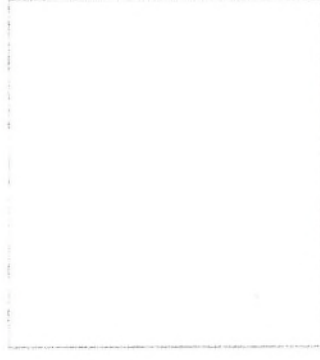


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CA



The SOMA West Skate Park. | PHOTO: SAN FRANCISCO ARTS COMMISSION/FLICKR

The discretionary review hearing at the Planning Commission is slated for January 12th, Bush says. Other concerns likely to be raised during that hearing are whether the design is consistent with the existing neighborhood character, and potential traffic impacts.

Bush stresses that Zeitgeist is not an opponent of housing development in general, and only wants to protect its beer garden.

"We have had meetings with the developers, and we want to be very clear that we aren't against housing, but this is not exactly affordable housing," he says. "It's just more of a super-clean and super-modern type of complex, and the design and placement of it just doesn't fit in with the neighborhood."

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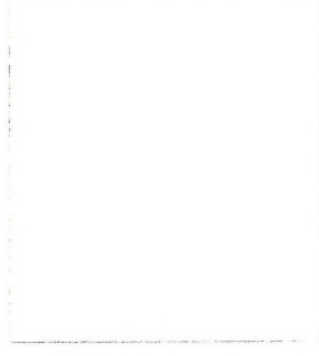
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Do Something Nice 7 days ago

The building should be 6 story, not 5, with each of the 4th, 5th and 6th floors having setbacks greater than the previous floor. And it would be pretty easy to mitigate shadows that affect nearby businesses.

Of course, that would allow for some actual design instead of our 'San Francisco Box' "architecture" and having something decent to look at may cause traffic accidents or something.

9 ^ v Reply Share



voltairesmistress 7 days ago

Everybody is "generally pro-housing" until the projected addition is on their block. Zeitgeist should be the entity making small changes to keep its beer garden welcoming to guests (a bit more cheery lighting perhaps to ward off the shadows?).

11 ^ v Reply Share

Kevin Smith → [voltairesmistress](#) 7 days ago

Maybe Zeitgeist could take the ugly billboard down that rises to 4 stories above their 3rd story? A shadow that houses no one. No, that would cost them easy ad revenue and that is more important to them than their sun.....

5 ^ v Reply Share



tiabgood → [voltairesmistress](#) 7 days ago

And heaters as well? As shade in SF means automatic temperature drop, no amount of lighting will help that. I do not think that most people going to Zeitgeist is looking for "cheery"

3 ^ v Reply Share



tiabgood → voltairesmistress 7 days ago

And heaters as well? As shade in SF means automatic temperature drop, no amount of lighting **will** help that. I do not think that most people going to Zeitgeist is looking for "cheery"

3 ^ v Reply Share >



SFguy 7 days ago

Zeitgeist showing everyone how to be the ultimate NIMBY.

11 ^ v Reply Share >



Senor_Wences → SFguy 7 days ago

They are justified. Zeitgeist has been in a spot nobody wanted, was subjected to break ins, vandalism, and general abuse from the transient populace of a disused and undesirable area. They tolerated it and figured out how to make it work, often through perseverance and hella elbow grease. They want discretionary review of the project not to halt it's development but to ensure that the height or setback configuration is not detrimental to one of the best outdoor seating areas in the city. You should be ashamed for even opening your mouth.

7 ^ v Reply Share >



SFguy → Senor_Wences 7 days ago

Sounds like you are runner up for ultimate NIMBY.

9 ^ v Reply Share >



Flatlander → SFguy 7 days ago

Sounds like you don't actually live in SF "SFGuy." Or you are a newcomer. Let me educate you: Here in SF, we have almost no places to eat and drink outdoors in the sunshine. The outdoor patio at Zeitgeist is one of those very few spots. And it's been around for at least 20 years and thus is cherished by everyone who has lived here for any length of time. Taking the sun out of one of our only sunny

patio spots would be like taking away the Embarcadero station sign.



by Alias Scerrato
@editcatsf
website



neighborhoods
Mission, SoMa



location
198 Valencia St, San Francisco,
CA



for any length of time. Taking the sun out of one of our only sunny patio spots would be like taking away the Embarcadero skating rink or closing the Golden Gate to bicycles. It is a rare resource and the public should have some say before it's taken away.

3 ^ v Reply Share >

Kevin Smith → Flatlander 7 days ago

You could still go sit in the lovey and very expensive McCoppin hub for your sun. Just down the block.

1 ^ v Reply Share >

SFGuy → Flatlander 6 days ago

I'm going to guess you don't live in SF seeing as you don't understand how desperately we need housing.

^ v Reply Share >

Jimbo → Flatlander 6 days ago

im a lifer and would like it to stay that way. in order for that to happen, we need more housing. screw the 1 hr shadow at zeitgeist.

^ v Reply Share >

voltairesmistress → Senor_Wences 7 days ago

And Senor_Wences, You should refrain from telling people to shut up just because you don't like their point of view. You stated yours above, and that is fine. Let your argument speak for itself.

5 ^ v Reply Share >

RBR 7 days ago

I bet 25¢ that the condo buyers will circulate a petition protesting the existence of the skate park.

7 ^ v Reply Share >

by Alisa Scerrato
@editcatsf
website

neighborhoods
Mission, SoMa

location

198 Valencia St, San Francisco,
CA



RBR 7 days ago

I bet 25¢ that the condo buyers will circulate a petition protesting the existence of the skate park.

7 ^ v Reply Share >



YohanSF 7 days ago

The ironic thing is that Zeitgeist's patio is shaded by their own building most of the day. This new building is small peanuts in comparison.

5 ^ v Reply Share >



Moby D 7 days ago

Who are they trying to kid? As if anyone would stop drinking because of shadows. Shadows!? Lolol I can see the beer drinkers no, 'oh no! Shadows, let's stop drinking and leave.' Only in SF do we argue I've something so silly.

4 ^ v Reply Share >



Flatlander → Moby D 7 days ago

Please list all of the places I can go to eat and drink in the sunshine in SF. It's a tiny, tiny list. Most big cities have tons of patio dining options - even places where it's really cold half the year. But not SF: here we get Zeitgeist, that one beer garden on Octavia, El Techo, and that's about it. So you want to take away 1/3 of those options. Brilliant.

4 ^ v Reply Share >



David Baker → Flatlander a day ago

Virgil's Sea Room on Mission has a very nice outdoor area.

^ v Reply Share >



SFguy → Flatlander 6 days ago

Do you actually believe that is it? Have you been around the city? There are far more.



by Alisa Scerrato
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website



neighborhoods
Mission, SoMa



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198 Valencia St, San Francisco,
CA



sFguy → Flatlander 6 days ago

Do you actually believe that is it? Have you been around the city? There are far more.

^ ^ Reply Share >

CostcoHotDogs 7 days ago

Why build a condo where the tenants will just complain about the noise at zeitgeist? Plenty of other places this could be built at.

4 ^ ^ Reply Share >

Jimbo 7 days ago

zeitgeist should have no input into this. this is why we get very little built in SF and shitty design

5 ^ ^ Reply Share >

Kevin Smith 7 days ago

Since they rebuilt that nasty freeway right over them, this is a ridiculous and moot point. As well as they are talking about a tiny late afternoon slice of sun on only occasional days. If they took off a floor of their own building, it would give them way more sun than what they are crying about. If they want their own sun so much, they should do that and pay for it themselves.

2 ^ ^ Reply Share >

Do Something Nice → Kevin Smith 7 days ago

They are a neighbor business and have every right to do this. They aren't killing the project, only asking for modifications.

The DR and appeals process are how we do business in SF. If you don't like it, most of the rest of the country is a good place for you to move.

5 ^ ^ Reply Share >

project, only asking for modifications.

The DR and appeals process are how we do business in SF. If you don't like it, most of the rest of the country is a good place for you to move.

5 ^ v Reply Share >



Randy Robertson → Do Something Nice 6 days ago

The rest of the country uses something called Property Rights.

When you buy a parcel of land, you own that land, not that and anything that could possibly obstruct the sun across the street.

If Zeitgeist wants to keep that patch of sun so much, they could have bought this land themselves and chosen to do nothing with it. Lord knows they have plenty of money off the books from under reporting cash sales and tips.

San Francisco has created an environment where pretty much anyone can complain about anything and unless you've have some kind of relationship with the supervisors, which typically means bribery, campaign contributions or some kind of quid pro quo, you're fucked.

1 ^ v Reply Share >



Do Something Nice → Randy Robertson 6 days ago

Randy Robertson, do you have proof that Zeitgeist has "plenty of money off the books from under reporting cash sales and tips" or are you just blowing smoke? Because that seems like slander to me.

Regardless of our process, new buildings are sprouting like mushrooms, so it must be working. And it must be very profitable as developers know what the process is and yet they continue to propose new builds.

^ v Reply Share >



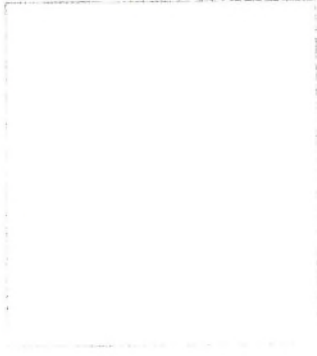
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neighborhoods
Mission, SoMa



location
199 Valencia St, San Francisco,
CA



Regardless of our process, new buildings are sprouting like mushrooms, so it must be working. And it must be very profitable as developers know what the process is and yet they continue to propose new builds.

^ v Reply Share >



Senor_Wences → Kevin Smith 7 days ago

The freeway is to the NORTH of the outdoor seating area and doesn't block any light. Their building is directly South of the seating area, so the daylight at high noon isn't blocked by their own building. It is the afternoon sun, to the West, which is of the most value in relation to their hours of operation and when most customers populate the outdoor seating area. The new housing proposed is to the West of the seating area, which makes it problematic. Try to keep up with reality rather than inventing your own.

2 ^ v Reply Share >



perplexed 7 days ago

This place employs the largest group of assholes in the city, and treats its customers like garbage. Couldn't have happened to a nicer group of people ...

5 ^ v Reply Share >



mike3k 7 days ago

Oh, boo-hoo. So the hipsters can't enjoy their sunlight.

4 ^ v Reply Share >



FacheuxIsMyHoe15Dollars → mike3k 6 days ago

lol. Zeitgeist attracted the yuppies and the Hipsters left. Guess you haven't gone in 4+ years.

^ v Reply Share >



Flatlander 7 days ago

This is one of the only places in the city to sit outside and eat and drink in the sunshine. It's



by Alisa Scernato
@editcatsf
website

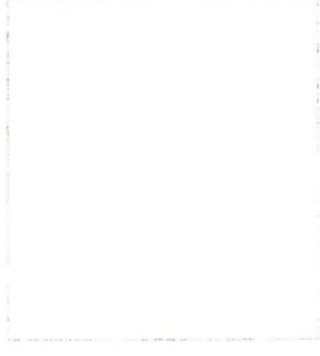


neighborhoods
Mission, SoMa



location

198 Valencia St, San Francisco,
CA





Flatlander 7 days ago

This is one of the only places in the city to sit outside and eat and drink in the sunshine. It's ridiculous that this isn't accorded more weight by Planning. The city desperately needs more sunny outdoor restaurant spaces and it is a crime to take one of them away -- especially one that has been a neighborhood treasure for at least the 21 years I've been here.

To those making light of the shadow issue:

- adding "cheerful lighting" is not the same thing as sunshine. This is one of the only major cities in the world where it's nearly impossible to dine in sunshine. We've got plenty of places with cheery lighting already.
- the freeway doesn't make this a "moot point." The patio is still packed on sunny days and the freeway hasn't changed that one bit.
- It's not a "tiny late afternoon slice of sun only on occasional days." It's during summer and fall (and, obviously, must also be during the spring when sun angles are the same as fall) so that's MOST of the year - and it's during prime after work sunny eating/drinking times: 6-7 in the summer and 5-6 in the spring and fall.

If this goes forward it will be a sad loss to our city. Trading one of our last bits of sun for more condos. Sad.

4 ^ v Reply Share »



Jimbo → Flatlander 7 days ago

if anything , the building should be higher with the current housing shortage

3 ^ v Reply Share »

Kevin Smith 7 days ago

"but this is not exactly affordable housing"

It will be affordable, or no one will pay to live there. He really means subsidized. By the way is Zeitgeist a subsidized bar?

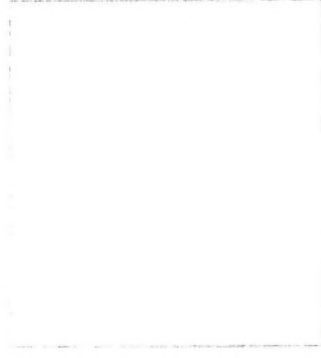


neighborhoods
Mission, SoMa



location

198 Valencia St, San Francisco,
CA



It will be affordable, or no one will pay to live there. He really means subsidized. By the way is Zeitgeist a subsidized bar? Can I get a bloody mary for 70% off the regular price, because I'm "disadvantaged"? Nooooo.....

4 ^ v Reply Share >



tiabgood → Kevin Smith 7 days ago

Their cocktails are not \$12-15 which means these days in SF, they are below market rate. They could chose to do otherwise, though they choose to be more affordable probably so they do not run their regulars away and replace them with the wealthiest of SF.

2 ^ v Reply Share >

Kevin Smith → tiabgood 7 days ago

There are plenty of condos in SF that are much more expensive that these will be... so these are below market rate already as well, by your matrix.

3 ^ v Reply Share >



tiabgood → Kevin Smith 8 days ago

Per square footage? Probably not. Below market rate/affordable housing in SF is always lower quality and it is the per square footage that makes it below market rate. Zeitgeist might not make the quality drinks as the fancy cocktail bars (though considering their bloody mary's that might be debatable), but quantity and how drunk you get, is the same and it is below market rate. That is my matrix. So no, these condos, in this neighborhood, for this square footage, will not be below market rate even by my matrix.

^ v Reply Share >

Kraus 5 days ago



Zeitgeist's DR request is nonsensical and should most certainly fail. It's continually disheartening that this City's policies continue to allow such spurious objections hold up much-needed housing creation.



by Alisa Scerrato
@editcatsf
website

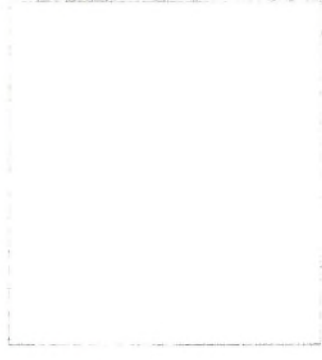


neighborhoods
Mission, SoMa



location

198 Valencia St, San Francisco,
CA





Kraus 5 days ago

Zeitgeist's DR request is nonsensical and should most certainly fail. It's continually disheartening that this City's policies continue to allow such spurious objections hold up much-needed housing creation.

Do Mr. Burmeister and Bush even understand that the proposed 198 Valencia building (5-stories, 55'-0" high) is directly due west and a full 82'-6" feet way across the street from their patio?

Sounds like they don't have a clue about how the sun actually travels across the sky.

Once the sun travels around towards the end of the day for it to even have chance to be blocked by the proposed project, it will be very low in the sky and close to setting!

As it currently stands the building that is blocking — and will continue to block — the most sun on their outdoor space is their own 3-story building directly to the south!

They're flippant suggestion that 198 Valencia's project sponsor lop 2 whole stories off the proposed project is patently absurd — it would likely result in cutting the projects dwelling unit count from 28 to 14.

There is no way the developer or the Planning Commission is going to support this self-entitled and ignorant DR request.

Mr. Burmeister and Bush should be ashamed of themselves.

1 ^ v Reply Share



curiousKulak 7 days ago

I'm surprised they allowed a curb cut on Duboce, as if there's any chance of egress on that street

1 ^ v Reply Share



agvs 5 days ago

Zeitgeist is an amazing place, but their argument stretches credulity to the extreme. Since



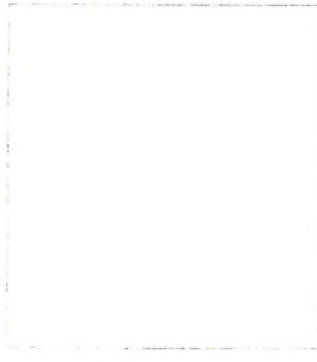
by Alissa Scerrato
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neighborhoods
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location
198 Valencia St, San Francisco,
CA





agvs 5 days ago

Zeitgeist is an amazing place, but their argument stretches credibility to the extreme. Since when does anyone not go to a bar because of the shadows? Even when you are there during the daylight hours, the outdoor area is shaded by all the parasols they've put up. Virtually 100% of the time, you are in darkness or shadow when you visit Zeitgeist as it is.

⌵ ⌶ Reply Share ↗

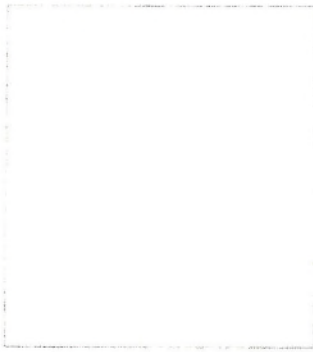


neighborhoods
Mission, SoMa



location

198 Valencia St, San Francisco,
CA



Kevin Smith 7 days ago

Do people use their damn patio at night, when it's totally sun less? Is their patio deserted at night, after the sun go's down? Case closed...

⌵ ⌶ Reply Share ↗



EightySixed → Kevin Smith 5 days ago

You could have also gone with, "they want sunlight but they have umbrellas on the patio. Case closed..."

Both are equally dumb.

⌵ ⌶ Reply Share ↗



FacheuxIsMyHoe15Dollars → Kevin Smith 6 days ago

Wow. You're a lawyer? You must have an expensive hourly rate.

⌵ ⌶ Reply Share ↗



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EXHIBIT D

January 3, 2017

Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA. 94103

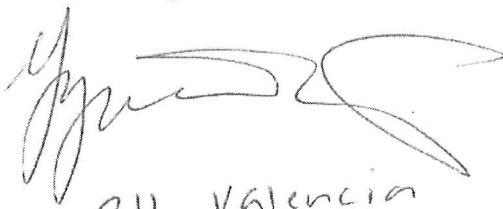
RE: 198 Valencia Street
DR Hearing: January 12, 2017

Dear President Fong and Commissioners:

I am a long-time small business owner in the area of Valencia and Duboce. While the Oil-Changer has been a good neighbor, we are very excited to have a beautiful, medium density housing development at this site. The new neighbors will be customers for the surrounding businesses and add vitality to the corner. We also welcome the 2 new retail businesses will that will be there as part of our Valencia corridor business community.

I understand that there are 2 requests for Discretionary Review. Both of these requesters want the building height to be reduced by 2 stories. That seems unfair given that the 50' height complies with the Planning Code and should be allowed here.

Please consider my support for this project in your hearing. The neighborhood is very pleased with the new development and looks forward to welcoming its new neighbors.



211 Valencia St, San Francisco

January 3, 2017

Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA. 94103

RE: 198 Valencia Street
DR Hearing: January 12, 2017

Dear Commissioner Fong and Commissioners:

I am a long-time resident of the neighborhood where the new building at 198 Valencia Street is proposed. I am glad to see a residential building at this site as it will enliven the corner and provide more eyes on the street during the day and nighttime. I am also glad that it is providing off-street parking spaces for 14 residents and 5 spaces for the retail stores on the ground floor since parking can be a problem in the neighborhood.

I understand that 2 of our other neighbors are requesting Discretionary Review and asking that the building be reduced by 2 stories. That does not seem fair since the developer has complied with the Planning Department rules, including the height limit. The City and the neighborhood spent many years agreeing on height limits in this neighborhood and I think it is unfair to ask the developer to reduce their building.

I support this project and hope that you agree. The neighborhood is very pleased with the new development and looks forward to welcoming its new neighbors.

Alexe Brink 1-B-17
32 Pearl¹⁸⁵⁷ Market

January 3, 2017

Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA. 94103

RE: 198 Valencia Street
DR Hearing: January 12, 2017

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James Kennedy, Principal, KWSF
225 Valencia Street, SF 94103

January 3, 2017

Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA. 94103

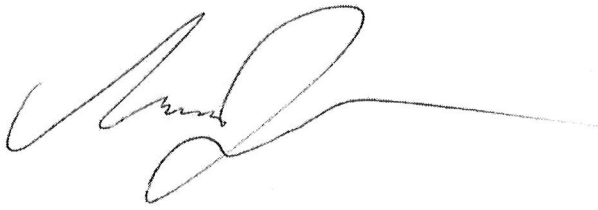
RE: 198 Valencia Street
DR Hearing: January 12, 2017

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225-A Valencia St.

January 3, 2017

Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA. 94103


RE: 198 Valencia Street
DR Hearing: January 12, 2017

Dear Commissioner Fong and Commissioners:

Business
I am a long-time resident of the neighborhood where the new building at 198 Valencia Street is proposed. I am glad to see a residential building at this site as it will enliven the corner and provide more eyes on the street during the day and nighttime. I am also glad that it is providing off-street parking spaces for 14 residents and 5 spaces for the retail stores on the ground floor since parking can be a problem in the neighborhood.

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I support this project and hope that you agree. The neighborhood is very pleased with the new development and looks forward to welcoming its new neighbors.

Alvin Hirakawa 174 Valencia St.


January 3, 2017

Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA. 94103


RE: 198 Valencia Street
DR Hearing: January 12, 2017

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178-Valencia.

12/29/16

January 3, 2017

Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA. 94103

RE: 198 Valencia Street
DR Hearing: January 12, 2017

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Donesh 16 Valencia St
12/29/2016 SF CA 94103

January 3, 2017

Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA. 94103

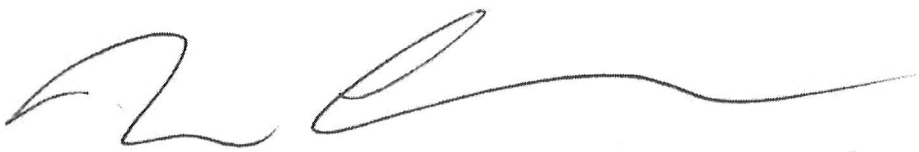
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150 VALER C. H (12) 29/16
James Spindler - 12/29/16

January 3, 2017

Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA. 94103


RE: 198 Valencia Street
DR Hearing: January 12, 2017

Dear President Fong and Commissioners:

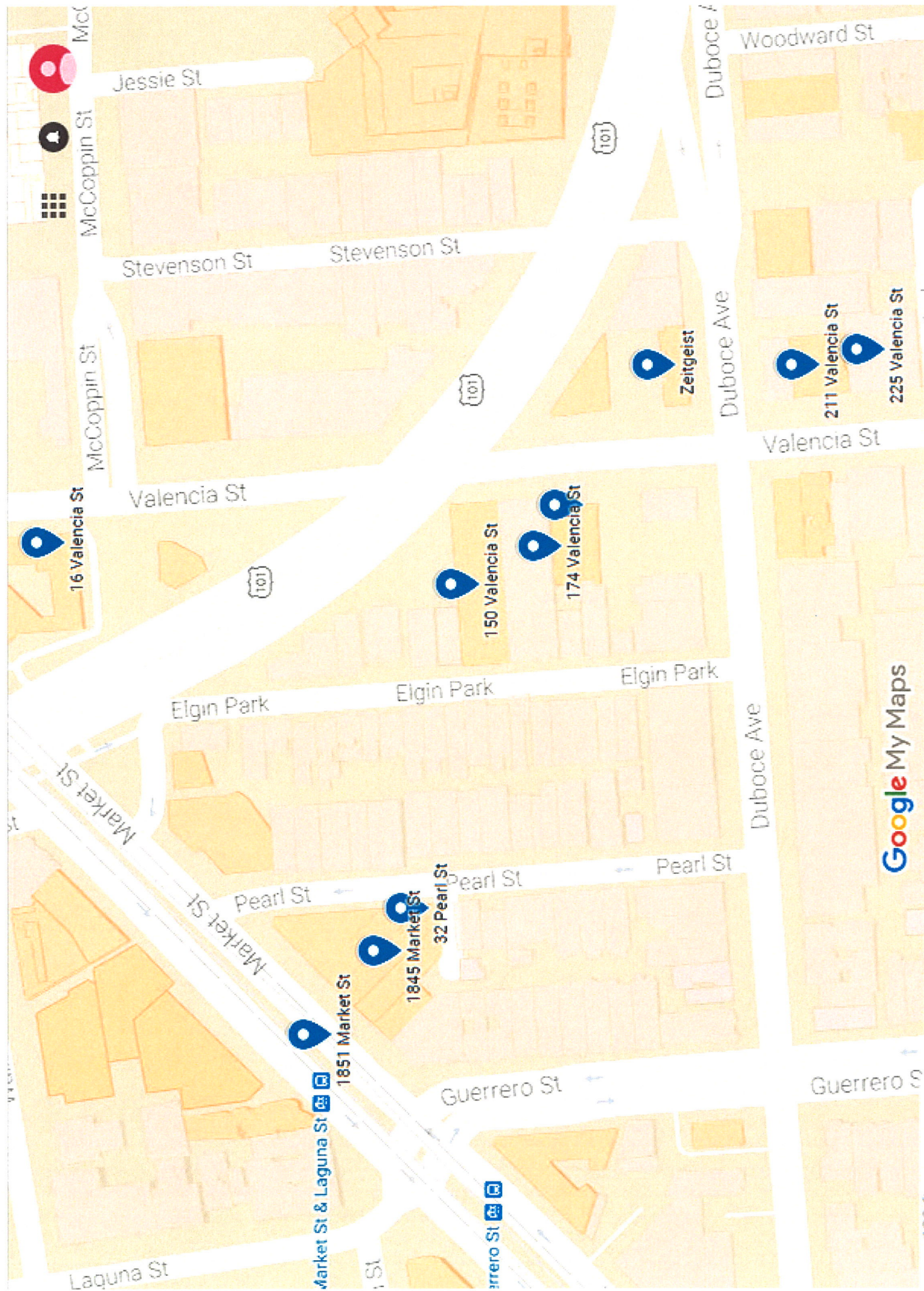
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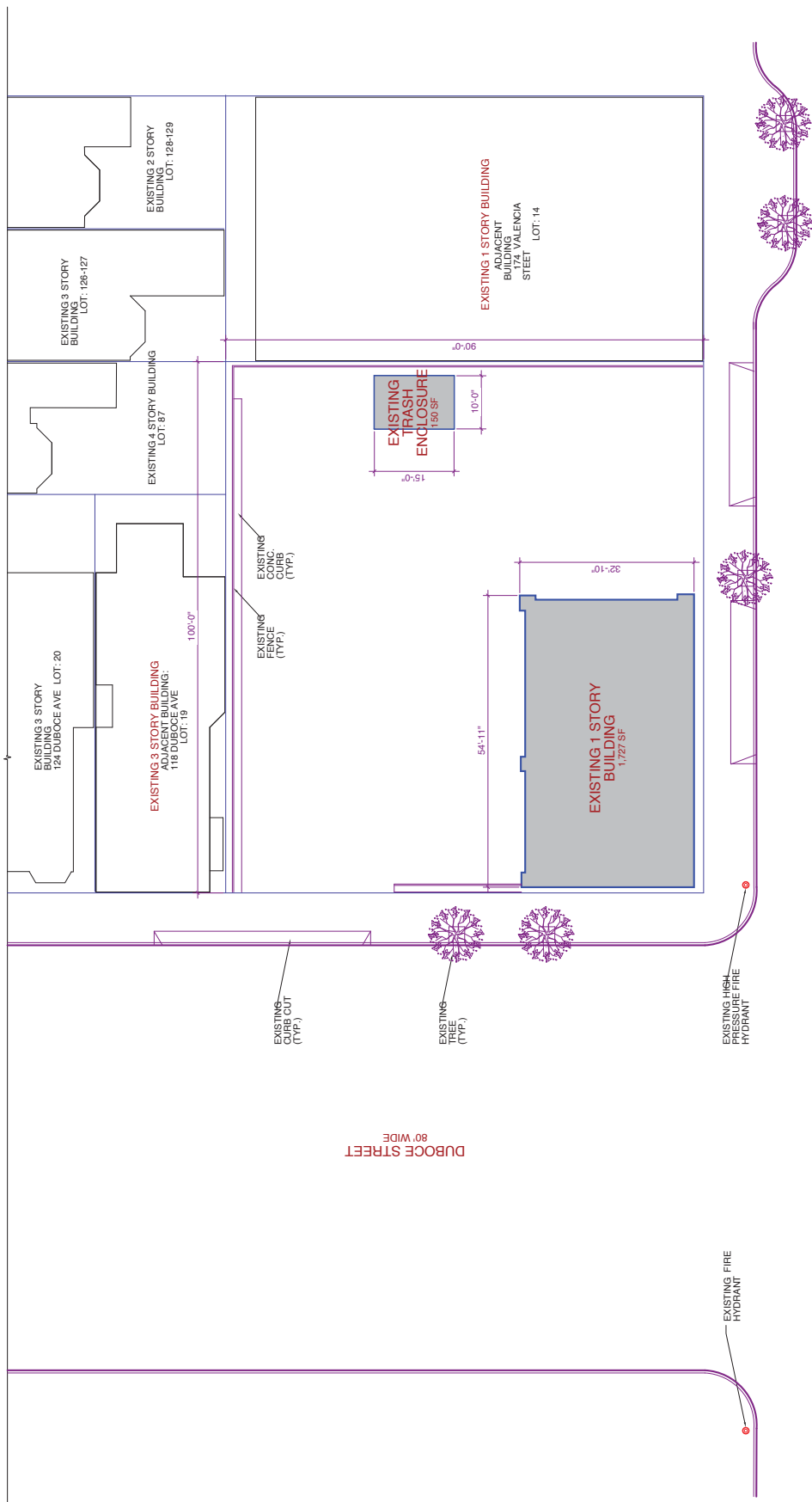
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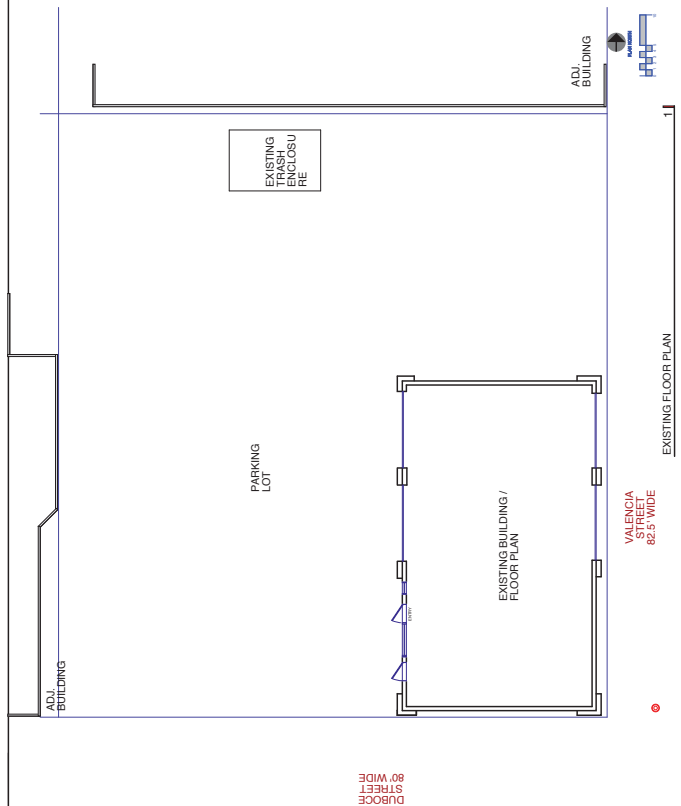
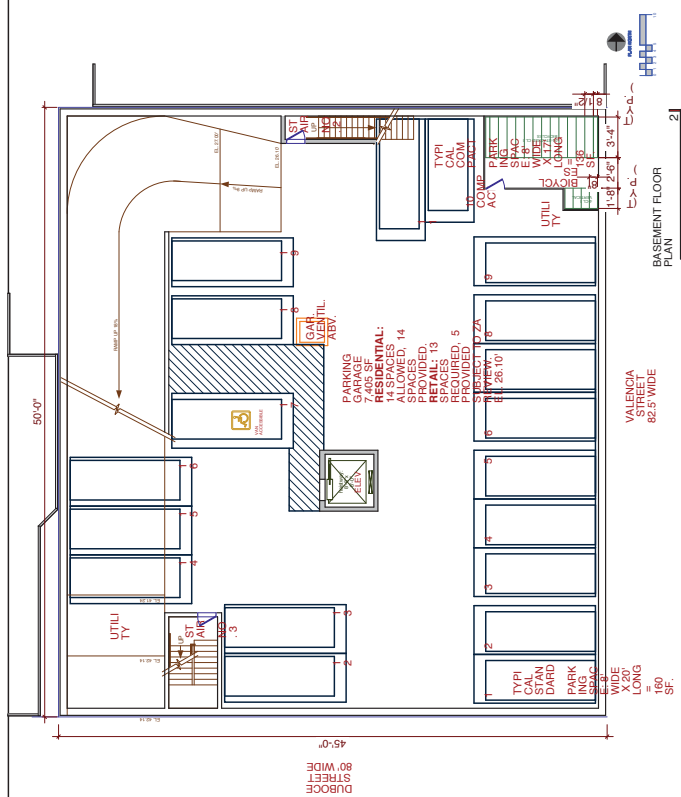
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Lien Loi
Market Rainbow Nail Spa
1845 Market St.
San Francisco, CA 94103

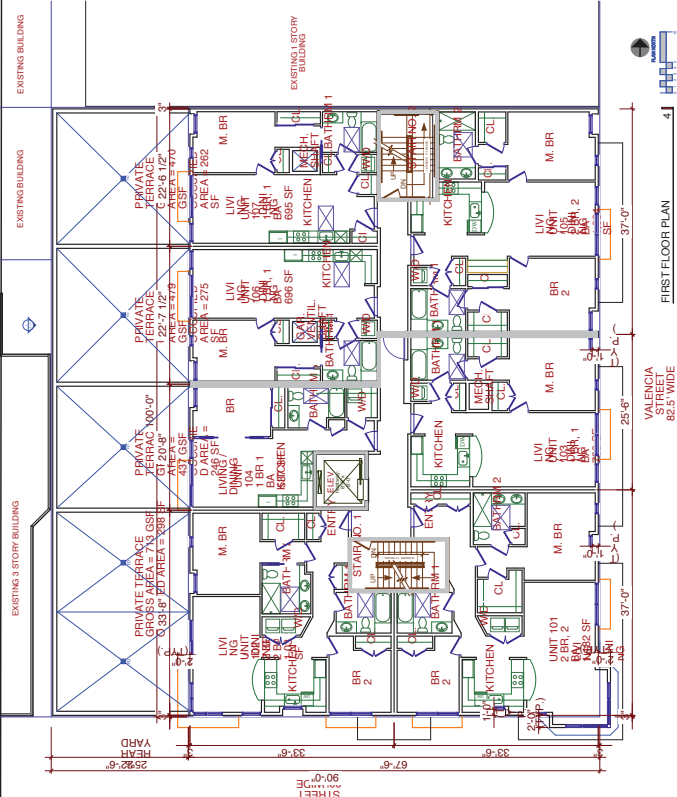




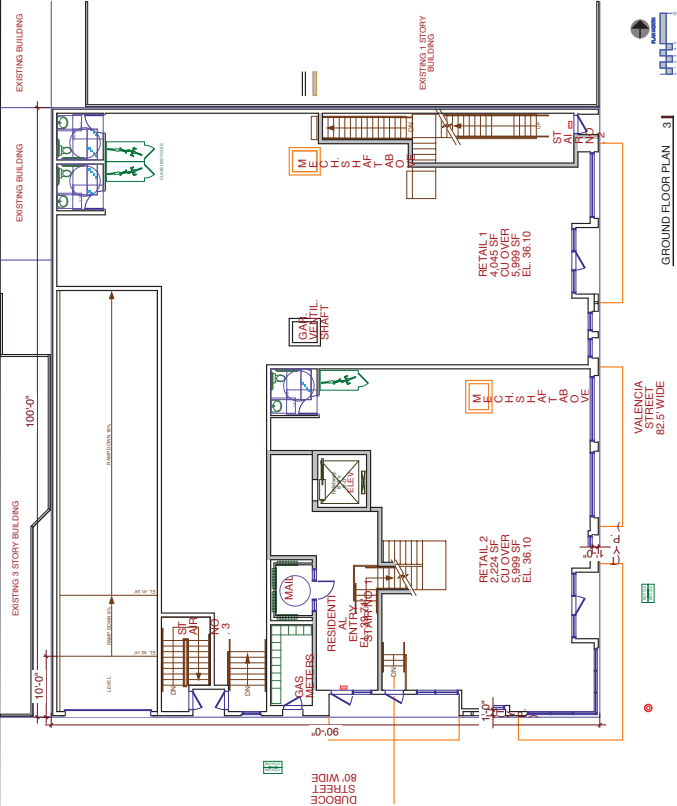
BASEMENT FLOOR
PLAN

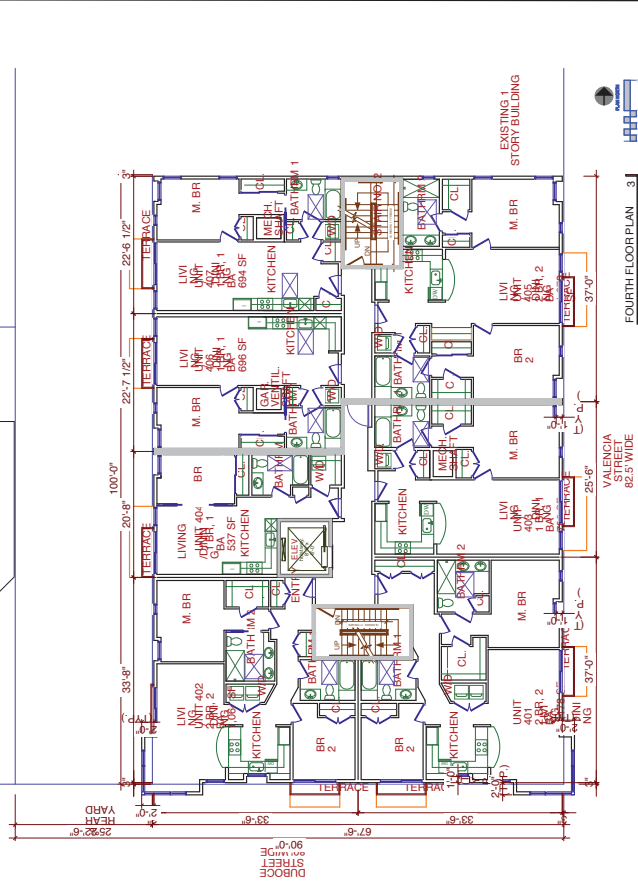
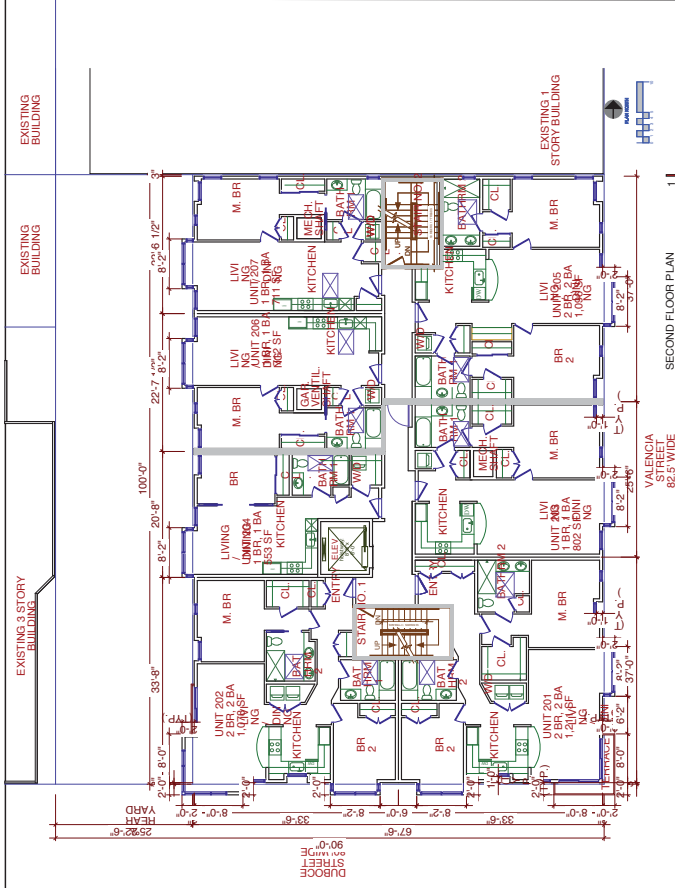


FIRST FLOOR PLAN



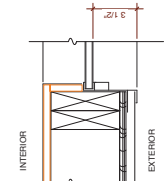
GROUND FLOOR PLAN 3





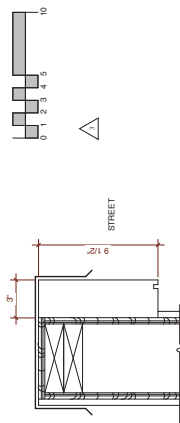


SOUTH (DUBOCE STREET) ELEVATION



NOTES:
DOOR AND WINDOW SILL
WATERPROOFING DETAILS BY
OWNER/CONTRACTOR
TYPICAL DETAIL FOR STREET
FACING WINDOWS DOORS ONLY

2
TYPICAL WINDOW DETAIL
SCALE: 3/4" = 1'-0"



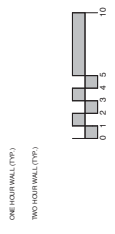
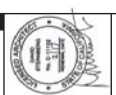
NOTES:
WATERPROOFING DETAILS BY
OWNER/CONTRACTOR

3
TYPICAL CORNICE DETAIL
SCALE: 3/4" = 1'-0"

Rev	Number	Date
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2	08/27/14	
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4	08/27/14	
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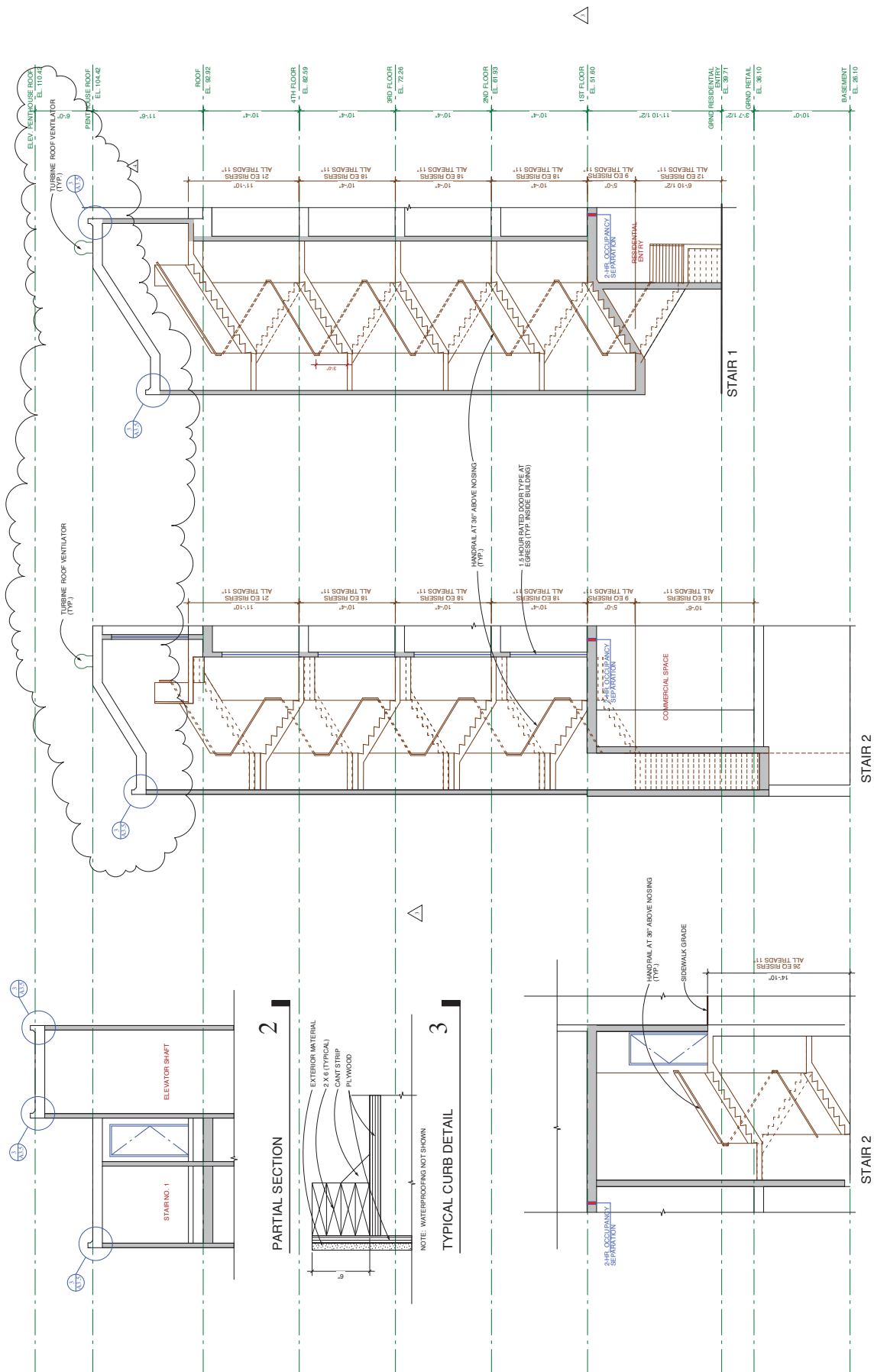
STAIR SECTIONS AND
 ROOF CURBS

198 VALENCIA STREET
 BLOCK 3502 LOT 108
 SAN FRANCISCO, CA

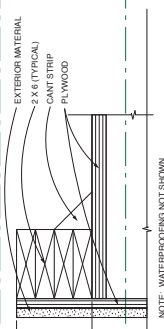


STAIR SECTIONS

SEE SHEET A.04 FOR TYPICAL STAIR DETAILS
 PROVIDE MINIMUM OF 6" HEAD CLEARANCE AT ALL TREAD NOSINGS.



3
 TYPICAL CURB DETAIL



2
 PARTIAL SECTION

