

ONE OAK STREET PROJECT

(1500-1540 MARKET STREET)



CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT: CASE NO. 2009.0159E

STATE CLEARINGHOUSE NO. 2012102025

DRAFT EIR PUBLICATION DATE: NOVEMBER 16, 2016

DRAFT EIR PUBLIC HEARING DATE: JANUARY 5, 2017

DRAFT EIR PUBLIC COMMENT PERIOD: NOVEMBER 16, 2016 -
JANUARY 10, 2017

Written comments should be sent to:

Lisa Gibson
Acting Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103
lisa.gibson@sfgov.org



**SAN FRANCISCO
PLANNING
DEPARTMENT**



SAN FRANCISCO PLANNING DEPARTMENT

DATE: November 16, 2016
TO: Distribution List for the One Oak Street Project Draft EIR
FROM: Lisa M. Gibson, Acting Environmental Review Officer
SUBJECT: Request for the Final Environmental Impact Report for the One Oak Street Project (Planning Department File No. 2009.0159E)

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

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

This is the Draft of the Environmental Impact Report (EIR) for a mixed use residential project at 1500-1540 Market Street (the "One Oak Street Project"). A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Responses to Comments," which will contain all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Those who testify at the hearing on the Draft EIR will automatically receive a copy of the Responses to Comments document, along with notice of the date reserved for certification; others may receive a copy of the Responses to Comments document and notice by request or by visiting our office. This Draft EIR together with the Responses to Comments document will be considered by the Planning Commission in an advertised public meeting and will be certified as a Final EIR if deemed adequate.

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

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

Thank you for your interest in this project.

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DRAFT ENVIRONMENTAL IMPACT REPORT

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LIST OF ACRONYMS AND ABBREVIATIONS

AC Transit	Alameda-Contra Costa Transit
ACL	absolute cumulative limit
ADA	American with Disabilities Act
ABAG	Association of Bay Area Governments
BART	Bay Area Rapid Transit
BMR	below market rate
BRT	Bus Rapid Transit
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DBI	Department of Building Inspection
DPW	Department of Public Works
EIR	Environmental Impact Report
FAR	Floor Area Ratio
FEIR	Final EIR
GGBHTD	Golden Gate Bridge, Highway, and Transportation District
GGT	Golden Gate Transit
gsf	gross square feet
HOA	Homeowners Association
I-80	Interstate 80
I-280	Interstate 280
ISCOTT	Interdepartmental Staff Committee on Traffic and Transportation
LOS	level of service
MLP	maximum load point
MMRP	Mitigation Monitoring and Reporting Program
MO Plan	Market and Octavia Neighborhood Plan
MOU	Memorandum of Understanding
MTC	Metropolitan Transportation Commission
MTS	Metropolitan Transportation System
Muni	San Francisco Municipal Railway
NOP/IS	Notice of Preparation/Initial Study
OPR	Office of Planning and Research
p/m/f	pedestrians per minute per foot
POPOS	privately owned publicly accessible open spaces
RPP	Residential Permit Parking
SamTrans	San Mateo County Transit
SB	Senate Bill
SFCHAMP	San Francisco Chained Activity Model Process
SFFD	San Francisco Fire Department
sfh	square-foot-hours
SFMTA	San Francisco Municipal Transportation Agency
sq. ft.	square feet
SUD	Special Use District
TAAS	theoretical annual available sunlight
TASC	Transportation Advisory Staff Committee
TAZ	transportation analysis zone

List of Acronyms and Abbreviations

TDM	Travel Demand Management
TEP	Transit Effectiveness Project
TIDF	Transit Impact Development Fee
TIS	Traffic Impact Study
TSP	Transit Signal Priority
TTRP	Travel Time Reduction Proposal
U.S. 101	United States Highway 101
VMT	vehicle miles traveled
WETA	Water Emergency Transportation Authority

SUMMARY

This Summary chapter is intended to highlight major areas of importance in the environmental analysis as required by Section 15123 of the California Environmental Quality Act Guidelines (CEQA Guidelines). This chapter briefly summarizes the One Oak Street Project (referred to in this Environmental Impact Report [EIR] as “the proposed project”). Following the synopsis of the proposed project, a summary table presents the environmental impacts of the proposed project identified in the EIR by topic and the mitigation measures identified to reduce or lessen significant impacts. Improvement measures, which are not required to mitigate significant impacts but would further reduce the magnitude of less-than-significant effects, may also be identified. Significant impacts identified in the Notice of Preparation/Initial Study (NOP/IS) are listed in a separate summary table, along with the mitigation measures that would reduce them to less-than-significant levels. Following these summary tables is a description of the alternatives to the proposed project that are addressed in this EIR and a table comparing the impacts of those alternatives with the proposed project. The chapter concludes with a summary of environmental issues to be resolved and areas of known controversy.

Table S.1: Summary of Impacts of Proposed Project Identified in the EIR, beginning on p. S.4, provides an overview of the following:

- Environmental impacts with the potential to occur as a result of the proposed project;
- The level of significance of the environmental impacts before implementation of any identified mitigation measures;
- A statement clarifying whether identified mitigation measure(s) would avoid or reduce significant environmental impacts and the level of significance for each impact after the mitigation measures are implemented; and
- Improvement measures that would further reduce less-than-significant impacts.

S.1. PROJECT SYNOPSIS

The proposed One Oak Street Project consists of the demolition of all existing structures (a three-story, 2,750-sq.-ft. commercial building and a four-story, 48,225-sq.-ft. commercial office building) and removal of a parking lot on the project site at 1500-1540 Market Street and construction of a new 310-unit, 40-story residential tower (400 feet tall, plus a 20-foot-tall parapet) with ground-floor commercial space, one off-street loading space, and a subsurface parking garage for residents. Bicycle parking would be provided for residents on a second-floor mezzanine and for visitors in bicycle racks on adjacent sidewalks. The proposed project would also include the following: construction of a public plaza within the Oak Street right-of-way; construction of several wind canopies within the proposed plaza and one wind canopy within the

sidewalk at the northeast corner of Market Street and Polk Street to reduce pedestrian-level winds; relocation of the existing Van Ness Muni station elevator entrance from the eastern end of the project site to the ground floor of the existing One South Van Ness building at the southeast corner of South Van Ness Avenue and Market Street, approximately 170 feet from its current location, with two elevators provided at the new location compared to one existing; and creation of a southbound contraflow fire lane exclusively for emergency vehicles along the east side of Franklin Street between Market Street and Oak Street that would shift the three existing northbound travel lanes on Franklin Street to the west.

An optional scheme that would relocate the existing Muni elevator north into the proposed Oak Plaza is also being studied in this EIR as a variant to the proposed project. This variant would not include the proposed contraflow fire lane.

The proposed project would require the adoption of legislative amendments to shift the existing Height and Bulk District 120/400-R-2 designation at the eastern end of the project site to the western end of the project site.

S.2. SUMMARY OF IMPACTS AND MITIGATION AND IMPROVEMENT MEASURES

The Planning Department published a Notice of Preparation of an Environmental Impact Report and Initial Study (NOP/IS) on June 17, 2015, announcing the intent to prepare and distribute a focused EIR. The topics analyzed in this EIR are Land Use and Land Use Planning, Transportation and Circulation, Wind, and Shadow; all other topics were covered within the Initial Study (see Appendix A).

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. Among other things, SB 743 added Section 21099 to the Public Resources Code and eliminated the analysis of aesthetics and parking impacts for certain urban infill projects under the California Environmental Quality Act (CEQA). The proposed project meets the definition of a mixed-use residential project on an infill site within a transit priority area as specified by Public Resources Code Section 21099. Accordingly, this EIR does not contain a separate discussion of the topic of Aesthetics, which can no longer be considered in determining the significance of the proposed project's physical environmental effects under CEQA. Chapter 2, Project Description, of the EIR nonetheless provides visual simulations for informational purposes. Similarly, Section 4.C, Transportation and Circulation, of the EIR includes a discussion of parking for informational purposes. This information, however, does not relate to the significance determinations in the EIR.

All impacts of the proposed project and associated mitigation measures and improvement measures identified in this EIR are summarized under their own subsection in Table S.1. Under each topic, impacts follow the order of the corresponding impact discussion in **Chapter 4, Environmental Setting and Impacts**, of this EIR. For the topics evaluated in the EIR, the levels of significance of impacts are identified as:

- **No Impact** – No adverse changes (or impacts) to the environment are expected.
- **Less Than Significant** – Impact that does not exceed the defined significance criteria or would be eliminated or reduced to a less-than-significant level through compliance with existing local, State, and Federal laws and regulations.
- **Less Than Significant with Mitigation** – Impact that is reduced to a less-than-significant level through implementation of the identified mitigation measures.
- **Significant and Unavoidable with Mitigation** – Impact that exceeds the defined significance criteria and can be reduced through compliance with existing local, State, and Federal laws and regulations and/or implementation of all feasible mitigation measures, but cannot be reduced to a less-than-significant level.
- **Significant and Unavoidable** – Impact that exceeds the defined significance criteria and cannot be eliminated or reduced to a less-than-significant level through compliance with existing local, State, and Federal laws and regulations and for which there are no feasible mitigation measures.

Where applicable, this table identifies the level of significance for impacts after implementation of the identified mitigation measure(s) in the column labeled “Level of Significance after Mitigation.”

This table provides an overview of project impacts, mitigation measures, and improvement measures, as applicable. The reader is directed to Chapter 4, Environmental Setting and Impacts, of this EIR and the NOP/IS, Section E. Evaluation of Environmental Effects (included in Appendix A to this EIR) for a thorough analysis of project and cumulative environmental impacts and the mitigation measures identified to address those impacts, as well as the basis for any proposed improvement measures.

As described below in Table S.1, this EIR identifies one significant and unavoidable impact related to cumulative construction traffic. Table S.1 also identifies improvement measures that could be implemented by the project sponsor to further reduce the less-than-significant transportation impacts of the proposed project. As described below in **Table S.2: Summary of Significant Impacts of Proposed Project Identified in the Initial Study**, beginning on p. S.18, the Initial Study identified eight significant impacts related to cultural resources, noise, and air quality that would be mitigated to less-than-significant levels with measures identified in Table S.2.

Table S.1: Summary of Impacts of Proposed Project Identified in the EIR

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<i>Legend:</i> NI = No Impact; LTS = Less than Significant; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable			
Land Use and Land Use Planning			
LU-1: The proposed project would not physically divide an established community.	LTS	None necessary.	NA
LU-2: The proposed project would not conflict with <i>General Plan</i> objectives and policies adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	None necessary.	NA
LU-3: The proposed project would not have a substantial impact on the existing character of the vicinity.	LTS	None necessary.	NA
C-LU-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not make a cumulatively considerable contribution to a significant cumulative land use impact.	LTS	None necessary.	NA

Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p><i>Legend:</i> NI = No Impact; LTS = Less than Significant; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable</p>			
<p>Transportation and Circulation</p>			
<p>TR-1: The proposed project or its variant would not cause substantial additional VMT, substantially increase automobile travel, or result in traffic hazards.</p>	<p>LTS</p>	<p>Improvement Measure I-TR-A: Transportation Demand Management Plan</p> <p>As an improvement measure to encourage use of sustainable modes, the project sponsor and subsequent property owners should develop and implement a TDM Plan. The scope and number of TDM measures included in the TDM Plan should be in accordance with the Planning Commission Standards for the TDM Program (TDM Program) for the type of development proposed. The TDM Program Standards may be refined as planning for the proposed TDM Ordinance goes through the legislative process. The proposed project's TDM Plan should conform to the most recent version of the TDM Program Standards available at the time of the project's approval, as defined in the proposed TDM Ordinance. The Planning Department should review and approve the TDM Plan, as well as any subsequent revisions to the TDM Plan, pursuant to the TDM Program Standards. The TDM Plan should target a reduction in the vehicle miles traveled (VMT) rate (e.g., VMT per capita), monitor and evaluate project performance (actual VMT), and adjust TDM measures over time to attempt to meet VMT target reduction.</p> <p>This improvement measure may be superseded if a comparable TDM Ordinance is adopted that applies to the proposed project.</p> <p>The TDM Plan may include, but is not limited to, the types of measures summarized below for explanatory example purposes. Actual TDM measures selected should include those from the TDM Program Standards, which describe the scope and applicability of candidate measures in detail and include.</p> <ol style="list-style-type: none"> 1. Active Transportation: Provision of streetscape improvements to encourage walking, secure bicycle parking, shower and locker facilities for cyclists, subsidized bike share memberships for project occupants, bicycle repair and maintenance services, and other bicycle-related services 2. Car-Share: Provision of car-share parking spaces and subsidized memberships for project occupants 	<p>NA</p>

Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>TR-2: The proposed project or its variant would not result in a substantial increase in transit demand that could not be accommodated by adjacent local and regional transit capacity, nor would it cause a substantial increase in delays or operating costs such that significant adverse impacts to local or regional transit service could occur.</p>	LTS	<p>3. Delivery: Provision of amenities and services to support delivery of goods to project occupants</p> <p>4. Family-Oriented Measures: Provision of on-site childcare and other amenities to support the use of sustainable transportation modes by families</p> <p>5. High-Occupancy Vehicles: Provision of carpooling/vanpooling incentives and shuttle bus service</p> <p>6. Information and Communications : Provision of multimodal wayfinding signage, transportation information displays, and tailored transportation marketing services</p> <p>7. Land Use: Provision of on-site affordable housing and healthy food retail services in underserved areas</p> <p>8. Parking: Provision of unbundled parking, short term daily parking provision, parking cash out offers, and reduced off-street parking supply.</p>	NA
		None necessary.	NA

Legend: NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant and unavoidable; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable

Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>TR-3: The proposed project or its variant would not result in a substantial overcrowding on public sidewalks, nor create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility on the site and adjoining areas.</p>	LTS	None necessary.	NA
<p>TR-4: The proposed project or its variant would not result in potentially hazardous conditions for bicyclists, or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.</p>	LTS	None necessary.	NA
<p>TR-5: The loading demand for the proposed project or its variant would be accommodated within the proposed on-site loading facilities, and would not create potentially hazardous conditions or significant delays for traffic, transit, bicyclists, or pedestrians.</p>	LTS	<p>Improvement Measure I-TR-B: Revision of Truck Restrictions on Market Street As an improvement measure to ensure that deliveries destined to the ground-floor restaurant and retail uses are able to be accommodated within the existing recessed commercial loading bay on Market Street, the SFMTA could revise the existing use restriction from a “No Standing Except Trucks with at Least 6 Wheels, 30 Minutes at All Times” to a “No Standing Except Trucks Loading/Unloading, 30 Minutes at All Times”.</p> <p>Improvement Measure I-TR-C: Removal of Flexible Bollards on Market Street As an improvement measure to ensure that trucks would be able to pull in fully to the existing recessed commercial loading bay on Market Street adjacent to the project site, the placement of the flexible safety bollards separating the existing bicycle lane from the adjacent travel lane could be reviewed to determine if one or more of the bollards could be</p>	NA

Legend: NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with mitigation; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable

Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>removed.</p> <p>Improvement Measure I-TR-D: Loading Operations Plan</p> <p>As an improvement measure to reduce potential conflicts between driveway operations, including loading activities, and pedestrians, bicycles, and vehicles on Oak and Market streets, the project sponsor could prepare a Loading Operations Plan, and submit the plan for review and approval by the Planning Department and the SFMTA. As appropriate, the Loading Operations Plan could be periodically reviewed by the sponsor, the Planning Department, and the SFMTA and revised if feasible to more appropriately respond to changes in street or circulation conditions.</p> <p>The Loading Operations Plan would include a set of guidelines related to the operation of the Oak Street driveways into the loading facilities, and large truck curbside access guidelines, and would specify driveway attendant responsibilities to ensure that truck queuing and/or substantial conflicts between project loading/unloading activities and pedestrians, bicyclists, transit and autos do not occur. Elements of the Loading Operations Plan may include the following:</p> <ul style="list-style-type: none"> • Commercial loading for the project should be accommodated on-site, within on-street commercial loading spaces along Market Street and on-street freight loading/drop-off spaces on the north side of Oak Street. Loading activities should comply with all posted time limits and all other posted restrictions. • Double parking or any form of illegal parking or loading should not be permitted on Oak or Market streets. Working with the SFMTA Parking Control Officers, building management should ensure that no loading activities occur within the Oak Street pedestrian plaza, or within the Market Street bicycle lanes, or upon any sidewalk, or within any travel lane on either Market, Franklin, or Oak streets. • All move-in and move-out activities for both the proposed project and the adjacent 1554 Market Street residential project should be coordinated with building management for each project. If necessary, building management should request a reserved curbside permit from the SFMTA in advance of move-in or move-out 	

Legend: NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable

Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>activities.¹</p> <ul style="list-style-type: none"> Reserved curb permits along Oak Street should be available throughout the day, with the exception of the morning and evening peak periods on weekdays, or 60 minutes following the end of any scheduled events at any adjacent land uses on the project block of Oak Street or at the proposed pedestrian plaza, whichever is later, to avoid conflicts with commercial and passenger loading needs for adjacent land uses and the proposed pedestrian plaza. Weekend hours should not be restricted, with the exceptions that if events are planned on weekend days at adjacent land uses on the project block or within the pedestrian plaza, reserved curb permits should be granted for 60 minutes following the end of any scheduled events at any adjacent land uses on the project block of Oak Street or at the proposed pedestrian plaza. The granted hours of reserved curbside permits should not conflict with posted street sweeping schedules. The HOA should make commercially reasonable efforts to request of the service provider that all trash, recycling and compost pick-up activity should be scheduled to occur only during non-AM and PM peak hours (9 am to 3:30 pm and 6 pm to 7 am). Trash bins, dumpsters and all other containers related to refuse collection should remain in the building at street level until the arrival of the collection truck. Refuse should be collected from the building via Market Street, and bins should be returned into the building. At no point should trash bins, empty or loaded, be left on Market Street or Oak Street on the sidewalk, roadway, or proposed pedestrian plaza. 	

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¹ Information on SFMTA temporary signage permit process available online at <https://www.sfmta.com/services/streets-sidewalks/temporary-signage>

Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>TR-6: The proposed project or its variant would not result in significant impacts on emergency vehicle access.</p>	LTS	<p>None necessary.</p>	NA
<p>TR-7: The proposed project or its variant would not result in substantial interference with pedestrian, bicycle, or vehicle circulation and accessibility to adjoining areas, and would not result in potentially hazardous conditions.</p>	LTS	<p>Improvement Measure I-TR-E: Construction Measures <u>Construction Management Plan for Transportation</u> – The project sponsor should develop and, upon review and approval by the SFMTA and Public Works, implement a Construction Management Plan addressing transportation-related circulation, access, staging and hours of delivery. The Construction Management Plan would disseminate appropriate information to contractors and affected agencies with respect to coordinating construction activities to minimize overall disruption and ensure that overall circulation in the project area is maintained to the extent possible, with particular focus on ensuring transit, pedestrian, and bicycle connectivity. The Construction Management Plan would supplement and expand, rather than modify or supersede, manual, regulations, or provisions set forth by the SFMTA, Public Works, or other City departments and agencies, and the California Department of Transportation. Management practices could include: best practices for accommodating pedestrians and bicyclists, identifying routes for construction trucks to utilize, minimizing deliveries and travel lane closures during the AM (7:30 to 9:00 AM) and PM (4:30 to 6:00 PM) peak periods along South Van Ness Avenue and Mission Street (Monday through Friday). Carpool, Bicycle, Walk, and Transit Access for Construction Workers – To minimize parking demand and vehicle trips associated with construction workers, the construction contractor could include as part of the Construction Management Plan methods to encourage carpooling, bicycle, walk, and transit access to the project site by construction workers (such as providing transit subsidies to construction workers, providing secure bicycle parking spaces, participating in free-to-employee ride matching program from www.511.org, participating in the emergency ride home program through the City of San Francisco (www.sferh.org), and providing transit information to construction workers.</p>	NA

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Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>C-TR-1: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development would not result in significant traffic impacts.</p>	LTS	<p><u>Construction Worker Parking Plan</u> – As part of the Construction Management Plan that would be developed by the construction contractor, the location of construction worker parking could be identified as well as the person(s) responsible for monitoring the implementation of the proposed parking plan. The use of on-street parking to accommodate construction worker parking could be discouraged. The project sponsor could provide on-site parking once the below grade parking garage is usable.</p> <p>Project Construction Updates for Adjacent Businesses and Residents – As an improvement measure to minimize construction impacts on access to nearby institutions and businesses, the project sponsor would provide nearby residences and adjacent businesses with regularly updated information regarding project construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), travel lane closures, and parking lane and sidewalk closures. The project sponsor could create a web site that would provide current construction information of interest to neighbors, as well as contact information for specific construction inquiries or concerns.</p> <p>None necessary.</p>	NA
<p>C-TR-2: The proposed project or its variant in combination with past, present, and reasonably foreseeable development would not contribute to significant cumulative transit impacts on local or regional transit capacity.</p>	LTS	None necessary.	NA

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Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>C-TR-3: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would not contribute considerably to any significant cumulative pedestrian impacts.</p>	LTS	None necessary.	NA
<p>C-TR-4: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would not contribute considerably to any significant cumulative bicycle impacts.</p>	LTS	None necessary.	NA
<p>C-TR-5: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would not contribute considerably to any significant cumulative loading impacts.</p>	LTS	None necessary.	NA

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Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>C-TR-6: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would not contribute considerably to any significant cumulative emergency vehicle access impacts.</p>	LTS	None necessary.	NA
<p>C-TR-7: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would contribute considerably to significant cumulative construction-related transportation impacts.</p>	SU	<p>Mitigation Measure M-C-TR-7: Cumulative Construction Coordination</p> <p>If construction of the proposed project is determined to overlap with nearby project(s) as to result in temporary construction-related transportation impacts, the project sponsor or its contractor(s) shall consult with City departments such as the SFMTA and Public Works through ISCOTT, and other interdepartmental meetings as deemed necessary by the SFMTA, Public Works, and the Planning Department, to develop a Coordinated Construction Management Plan. The Coordinated Construction Management Plan shall address construction-related vehicle routing, detours, and maintaining transit, bicycle, vehicle, and pedestrian movements in the vicinity of the construction area for the duration of the construction period overlap. Key coordination meetings would be held jointly between project sponsors and contractors of other projects for which City departments determine impacts could overlap. The Coordinated Construction Management Plan shall consider other ongoing construction in the project vicinity, including development and transportation infrastructure project, and shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Restricted Construction Truck Access Hours – Limit construction truck movements to the maximum extent feasible to the hours between 9:00 AM and 4:30 PM, or other times if approved by the SFMTA, to minimize disruption to vehicular traffic, including transit during the AM and PM peak periods. • Construction Truck Routing Plans – Identify optimal truck routes between the regional facilities and the project site, taking into consideration truck routes of other development projects and any construction activities affecting the roadway 	SUM

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Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>network.</p> <ul style="list-style-type: none"> • Coordination of Temporary Lane and Sidewalk Closures – The project sponsor shall coordinate lane closures with other projects requesting concurrent lane and sidewalk closures through the ISCOTT and interdepartmental meetings process above, to minimize the extent and duration of requested lane and sidewalk closures. Lane closures shall be minimized especially along transit and bicycle routes, so as to limit the impacts to transit service and bicycle circulation and safety. • Maintenance of Transit, Vehicle, Bicycle, and Pedestrian Access – The project sponsor/construction contractor(s) shall meet with Public Works, SFMTA, the Fire Department, Muni Operations and other City agencies to coordinate feasible measures to include in the Coordinated Construction Management Plan to maintain access for transit, vehicles, bicycles and pedestrians. This shall include an assessment of the need for temporary transit stop relocations or other measures to reduce potential traffic, bicycle, and transit disruption and pedestrian circulation effects during construction of the project. • Carpool, Bicycle, Walk and Transit Access for Construction Workers – The construction contractor shall include methods to encourage carpooling, bicycling, walk and transit access to the project site by construction workers (such as providing transit subsidies to construction workers, providing secure bicycle parking spaces, participating in free-to-employee and employer ride matching program from www.511.org, participating in emergency ride home program through the City of San Francisco (www.sferh.org), and/or providing transit information to construction workers). • Construction Worker Parking Plan – The location of construction worker parking shall be identified as well as the person(s) responsible for monitoring the implementation of the proposed parking plan. The use of on-street parking to accommodate construction worker parking shall be discouraged. The project sponsor shall provide on-site parking to the extent feasible once the below-grade parking garage is usable. 	

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Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> Project Construction Updates for Adjacent Businesses and Residents – To minimize construction impacts on access for nearby institutions and businesses, the project sponsor shall provide nearby residences and adjacent businesses with regularly-updated information regarding project construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), travel lane closures, and lane closures. At regular intervals to be defined in the Coordinated Construction Management Plan, a regular email notice shall be distributed by the project sponsor that shall provide current construction information of interest to neighbors, as well as contact information for specific construction inquiries or concerns. 	
Wind			
W-1: The proposed project would not alter wind in a manner that substantially affects public areas	LTS	<p>Improvement Measure I-W-1: Wind Reduction Features</p> <p>To reduce ground-level wind speeds and project comfort criteria exceedances in areas used for public gathering, such as MUNI transit stops and crosswalk entrances, the Project Sponsor is encouraged to install, or facilitate installation of, wind reduction measures that could include but are not limited to structures, canopies, wind screens and landscaping as feasible. In so doing, the Project Sponsor would coordinate with the Planning Department and representatives of responsible City agencies or third parties, as may be warranted by the specific nature and location of the improvement, as applicable.</p> <p>None required.</p>	NA
C-W-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the project vicinity would not make a cumulatively considerable contribution to a significant cumulative wind impact.	LTS	None required.	NA

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Summary
Table S.1 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p><i>Legend:</i> NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with mitigation; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable</p> <p>Shadow</p>			
<p>S-1: The proposed project or variant would not create new shadow on public parks in a manner that substantially affects outdoor recreation facilities or other public areas.</p>	LTS	None necessary.	NA
<p>S-2: The proposed project or variant would not substantially shade outdoor recreation facilities or other public areas, such as streets and sidewalks that are not under the jurisdiction of the Recreation and Park Commission.</p>	LTS	None necessary.	NA
<p>C-S-1: The proposed project or variant in combination with past, present, and reasonably foreseeable future projects in the project vicinity would not create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas. The proposed project would not make a cumulatively considerable contribution to a significant cumulative shadow impact.</p>	LTS	None necessary.	NA

Table S.2: Summary of Significant Impacts of Proposed Project Identified in the Initial Study

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p><i>Legend:</i> NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with mitigation; S = Significant; SU = Significant and unavoidable with mitigation; NA = Not Applicable</p>			
<p>Cultural and Paleontological Resources</p>			
<p>CP-2: Construction activities for the proposed project could cause a substantial adverse change in the significance of archaeological resources and human remains, if such resources are present within the project site.</p>	<p>S</p>	<p>Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery, and Reporting. Based on a reasonable presumption that pre-historic and historic archaeological resources may be present within the project site, the following measures shall be undertaken, consistent with the MO Plan EIR mitigation measures to avoid any potentially significant adverse effect from the proposed project on buried cultural resources.</p> <p>a. The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment, and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer.</p> <p>Predicting the location of potentially significant subsurface archaeological resources is never completely accurate; therefore, the possibility remains that important resources may be encountered in locations that have not been tested, and may become apparent during the course of construction. The Archaeological consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure, or if archaeological resources are encountered during construction.</p> <p>b. Due to the potential for intact cultural resources within and beneath the fill layer underlying the existing building and parking lot on the property, the archaeological consultant shall undertake an archaeological testing program prior to and coinciding with mass excavation on the site. The archaeological testing</p>	<p>LTSM</p>

Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>shall include the following measures:</p> <ol style="list-style-type: none"> 1. A systematic core-sampling program shall be undertaken prior to excavation activity on the site to address uncertainties about prehistoric-period archaeological sensitivity of the geological strata that underlie the project site. A hydraulic coring device, or "Geoprobe," utilizing a dual-wall system to improve recovery will be used to obtain six core samples extending to the maximum depth of disturbance across the footprint of the area that will be impacted by mass excavation or pile driving (if a pile foundation system is required). 2. Testing for historic-period resources includes mechanical excavation of test trenches and areal excavations in two specific areas of the project site identified in the ARD/TP that have the most potential to contain intact archaeological deposits and features that would be disturbed by excavation and construction activities. c. If potentially significant cultural resources are encountered during the testing program, the archaeological consultant shall determine if redirection of construction excavation is needed, and shall evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with EP and the project sponsor. In consultation with EP, the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, including data recovery, as needed. If data recovery is the preferred mitigation alternative, the consultant shall develop an Archaeological Data Recovery Plan (ADRP) for submittal to EP for review and approval. Once approved the consultant shall implement the measures in the plan to recover any potentially significant data. The ADRP will reference the prehistoric and historic contexts and research design in the ARD/TP and will provide a detailed data recovery plan. The data recovery plan will include the following procedures: <ol style="list-style-type: none"> 1. Determination of the structure and stratigraphic integrity, the date of the deposition, and the range and quantity of associated artifacts, if possible; 	

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Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>2. An appropriate portion of each feature will be excavated manually to assess its content and integrity;</p> <p>3. A detailed profile of the feature will be produced, and each layer investigated for contents and temporal affiliation;</p> <p>4. The field crew will produce plans to-scale, take digital photographs, and map all features and deposits using WSA's Trimble Geo-XT GPS Data Logger, which provides sub-meter accuracy;</p> <p>5. Diagnostic artifacts will be removed, bagged, and catalogued; and</p> <p>6. Soil color and texture samples will be recovered and soil profiles will be drawn, if applicable.</p> <p>d. Based on the results of the archaeological testing program, if EP, in consultation with the project archaeologist, determines that an archaeological monitoring program shall be implemented, the project archaeologist shall prepare an Archaeological Monitoring Plan (AMP) that will provide guidance to the archaeological monitor and the construction manager as to the procedures that are to be followed in the event that previously unknown or unanticipated buried cultural resources are encountered during excavation. In general, the AMP will include the following guidelines and recommendations:</p> <ol style="list-style-type: none"> 1. Construction work should be stopped until the project archaeologist has had an opportunity to evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with the construction manager, the archaeological monitor, and EP. At that time, it will also be determined if redirection of construction excavation is needed; 2. Upon observing what is reasonably believed to be a cultural deposit or feature, the archaeological monitor shall immediately request the equipment operator to stop excavation and shall notify the construction manager, who shall direct that all construction activity stop within 25 ft. of the resource in order to permit an examination of the find. The archaeological monitor is not 	

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Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>permitted to direct other movements of earth-moving machinery.</p> <p>3. If the archaeological monitor determines that the cultural object or feature is potentially significant, the archaeological monitor must then immediately notify the project archaeological consultant who shall initiate appropriate consultations with the construction manager and EP to determine the appropriate avoidance or mitigation measures. All information needed, including soil color or type, elevation, location, photographs, sketch maps, etc., shall be gathered as quickly as conditions permit to allow a final determination of the significance of the find.</p> <p>4. EP and the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, and may include data recovery. If potentially significant cultural resources are identified during construction monitoring and it is decided that data recovery is the preferred mitigation alternative, the project archaeological consultant shall develop an ADRP per the criteria outlined above in measure 3, for submittal to EP for review and approval, and shall implement the measures in the approved plan to recover any potentially significant data found during construction.</p> <p>e. In the unlikely event that human remains are encountered during implementation of archaeological testing, the remains must be treated in accordance with the requirements of CEQA Section 15064.5 and Section 7050.5(b) of the California Health and Safety Code, which states:</p> <p>In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section</p>	

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Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.</p> <ol style="list-style-type: none"> 1. The county coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the NAHC within 24 hours, who then assigns a Native American Most Likely Descendant (MLD) to the Project. The MLD, or in lieu of the MLD, the NAHC, has responsibility to provide guidance as to the ultimate disposition of any Native American remains. 2. In the event the remains are determined to be non-Native American, under CEQA Section 15064.5 (a) (4), the City and County of San Francisco, as lead agency, may determine that the remains constitute an historical resource. As such, the remains may have the potential to provide essential information on Gold Rush-era and later 19th-century diet, disease, mortality, and interment practices, among other important research topics. <p>f. Upon completion of archaeological testing and monitoring, a draft Final Archaeological Resources Report (FARR) documenting the results of implementing the ARD/TP shall be prepared by the project archaeologist and submitted to EP for review. The content of the FARR shall be consistent with the City of San Francisco Guidelines. A final draft of the FARR shall be produced in</p>	

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Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>response to comments provided by EP.</p> <p>g. Exposure of sub-surface archaeological deposits increases the risks of looting and destruction of valuable and spatially-sensitive archaeological information.² Consequently, prior to site preparation and excavation, a security fence shall be erected around the project parcel. Once surface hardscapes have been removed and archaeological testing begins, a security guard shall be employed to provide security during those periods when the site is otherwise unoccupied. It shall be the security guard's responsibility to insure that no unauthorized excavations occur and no cultural material is removed from the site.</p> <p>h. Upon the completion of the final report on archaeological investigations, the collection will be transferred to an appropriate facility for permanent curation where it will be available for study by researchers in the future. This facility will meet the standards set forth in <i>Curation of Federally Owned and Administered Archaeological Collections</i>.³ In addition to the artifacts, soil samples, etc., the facility will also receive copies of field notes and drawings, special studies, and the final report. The designated repository for the San Francisco Bay Area is the Archaeological Collections Facility at Sonoma State University.</p>	
<p>CP-3: Construction activities of the proposed project could affect a unique paleontological resource or a unique geologic feature.</p>	S	<p>Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program</p> <p>The project sponsor shall retain the services of a qualified paleontological consultant having expertise in California paleontology to design and implement a Paleontological Resources Monitoring and Mitigation Program. The PRMMP shall include a description of when and where construction monitoring would be required; emergency discovery procedures; sampling and data recovery procedures; procedure for the preparation, identification, analysis, and curation of fossil specimens and data</p>	LTSM

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² William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*.

³ 36 CFR 79, as cited in William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*, p. 74.

Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>recovered; preconstruction coordination procedures; and procedures for reporting the results of the monitoring program.</p> <p>The PRMMP shall be consistent with the Society for Vertebrate Paleontology Standard Guidelines for the mitigation of construction-related adverse impacts to paleontological resources and the requirements of the designated repository for any fossils collected. During construction, earth-moving activities shall be monitored by a qualified paleontological consultant having expertise in California paleontology in the areas where these activities have the potential to disturb previously undisturbed native sediment or sedimentary rocks. Monitoring need not be conducted in areas where the ground has been previously disturbed, in areas of artificial fill, in areas underlain by non-sedimentary rocks, or in areas where exposed sediment would be buried, but otherwise undisturbed.</p> <p>The consultant's work shall be conducted in accordance with this measure and at the direction of the City's ERO. Plans and reports prepared by the consultant 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. Paleontological monitoring and/or data recovery programs required by this measure could suspend construction of the proposed project for as short a duration as reasonably possible and in no event for more than a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce potential effects on a significant paleontological resource as previously defined to a less-than-significant level.</p>	

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Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>C-CP-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to significant cumulative impacts on cultural resources.</p>	S	<p>Implement Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery and Reporting and Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program, above.</p>	LTSM
<p>Noise</p>			
<p>NO-2: Project demolition and construction would temporarily and periodically increase ambient noise and vibration in the project vicinity compared to existing conditions.</p>	S	<p>Mitigation Measure M-NO-2: General Construction Noise Control Measures</p> <p>To ensure that project noise from construction activities is minimized to the maximum extent feasible, the project sponsor and/or its construction contractors shall undertake the following:</p> <ul style="list-style-type: none"> • The project sponsor shall require the general contractor to ensure that equipment and trucks used for project construction utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible). • The project sponsor shall require the general contractor to locate stationary noise sources (such as compressors) as far from adjacent or nearby sensitive receptors as possible, to muffle such noise sources, and to construct barriers around such sources and/or the construction site, which could reduce construction noise by as much as 5 dBA. To further reduce noise, the contractor shall locate stationary equipment in pit areas or excavated areas, if feasible. • The project sponsor shall require the general contractor to use impact tools (e.g., jack hammers, pavement breakers, and rock drills) that are hydraulically- or electrically-powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. 	LTSM

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Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used, along with external noise jackets on the tools, which could reduce noise levels by as much as 10 dBA.</p> <ul style="list-style-type: none"> The project sponsor shall include noise control requirements in specifications provided to construction contractors. Such requirements could include, but not be limited to, performing all work in a manner that minimizes noise to the extent feasible; use of equipment with effective mufflers; undertaking the most noisy activities during times of least disturbance to surrounding residents and occupants, as feasible; and selecting haul routes that avoid residential buildings inasmuch as such routes are otherwise feasible. Prior to the issuance of building permits, along with the submission of construction documents, the project sponsor shall submit to the Planning Department and Department of Building Inspection (DBI) a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include (1) a procedure and phone numbers for notifying DBI, the Department of Public Health, and the Police Department (during regular construction hours and off-hours); (2) a sign posted on-site describing noise complaint procedures and a complaint hotline number that shall be answered at all times during construction; (3) designation of an on-site construction complaint and enforcement manager for the project; and (4) notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of extreme noise-generating activities (defined as activities generating noise levels of 90 dBA or greater) about the estimated duration of the activity. 	

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Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>NO-3: The proposed project's new residents would not be substantially affected by existing noise or vibration levels.</p>	NA	<p>Note: The NOP/Initial Study found that vibration from existing sources in the vicinity could have a significant impact on residents of the proposed project, and identified Mitigation Measure M-NO-3: Vibration Attenuation that called for a site specific vibration analysis of existing sources of vibration. After the NOP/Initial Study was published, the California Supreme Court found that, in normal circumstances, the study of the effect of existing environmental conditions on a proposed project is not necessary under CEQA (<i>California Building Industry Association v. Bay Area Air Quality Management District</i> (2015) 62 Cal. 4th 369), unless the project could exacerbate an existing condition. Since the proposed project would not exacerbate the impact of existing vibration levels on residents of the proposed project, no analysis of this impact, nor mitigation measure, is necessary.</p>	NA
<p>C-NO-2: Construction of the proposed project, in combination with other past, present, and reasonably foreseeable future projects in the site's vicinity, would not result in a cumulatively considerable contribution to significant temporary or periodic increases in ambient noise or vibration levels in the project vicinity above levels existing without the proposed project.</p>	S	<p>Implement Mitigation Measure M-NO-2: General Construction Noise Control Measures, above.</p>	LTSM
Air Quality			
<p>AQ-2: The proposed project's construction activities would generate toxic air contaminants, including diesel particulate matter, which would expose sensitive receptors to substantial pollutant concentrations.</p>	S	<p>Mitigation Measure M-AQ-2: Construction Air Quality The project sponsor or the project sponsor's Contractor shall comply with the following: A. <i>Engine Requirements.</i> 1. All off-road equipment greater than 25 hp and operating for more than</p>	LTSM

Legend: NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with mitigation; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable

Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>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.</p> <ol style="list-style-type: none"> 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 manufacturer specifications. <p>B. Waivers.</p> <ol style="list-style-type: none"> 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). 	

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Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation												
		<p>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 M-AQ-2, below.</p> <p>Table M-AQ-2: Off-Road Equipment Compliance Step-down Schedule</p> <table border="1"> <thead> <tr> <th>Compliance Alternative</th> <th>Engine Emission Standard</th> <th>Emissions Control</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Tier 2</td> <td>ARB Level 2 VDECS</td> </tr> <tr> <td>2</td> <td>Tier 2</td> <td>ARB Level 1 VDECS</td> </tr> <tr> <td>3</td> <td>Tier 2</td> <td>Alternative Fuel*</td> </tr> </tbody> </table> <p>* Alternative fuels are not a VDECS</p> <p>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.</p> <p>C. <i>Construction Emissions Minimization Plan.</i> Before starting on-site construction activities, the Contractor shall submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and</p>	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*	
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*													

Legend: NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with mitigation; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable

Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>approval. The Plan shall state, in reasonable detail, how the Contractor will meet the requirements of Section A.</p> <ol style="list-style-type: none"> 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 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. <p>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</p>	

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Summary
Table S.2 (continued)

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>AQ-4: The proposed project would generate toxic air contaminants, including diesel particulate matter, exposing sensitive receptors to substantial air pollutant concentrations.</p>	<p>S (sources of toxic air contaminants)</p>	<p>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.</p> <p>M-AQ-4: Best Available Control Technology for Diesel Generators The project sponsor shall ensure that the backup diesel generator meet or exceed one of the following emission standards for particulate matter: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California Air Resources Board(ARB) Level 3 Verified Diesel Emissions Control Strategy (VDECS). A non-verified diesel emission control strategy may be used if the filter has the same particulate matter reduction as the identical ARB verified model and if the Bay Area Air Quality Management District (BAAQMD) approves of its use. The project sponsor shall submit documentation of compliance with the BAAQMD New Source Review permitting process (Regulation 2, Rule 2, and Regulation 2, Rule 5) and the emission standard requirement of this mitigation measure to the Planning Department for review and approval prior to issuance of a permit for a backup diesel generator from any City agency.</p>	<p>LTSM</p>
<p>C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the project area would contribute to cumulative air quality impacts.</p>	<p>S</p>	<p>Implementation of Mitigation Measure M-AQ-2: Construction Air Quality and Mitigation Measure M-AQ-4: Best Available Control Technology for Diesel Generators, above.</p>	<p>LTSM</p>

Legend: NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with mitigation; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable

S.3. SUMMARY OF PROJECT ALTERNATIVES

Two alternatives are evaluated in this EIR: the No Project Alternative, and the Podium-only Alternative. The two alternatives are described in detail in **Chapter 6, Alternatives**, and are summarized below. **Table S.3: Comparison of Characteristics and Significant Impacts of the Proposed Project to the Alternatives**, pp. S.48 to S.49, presents a comparison of the characteristics of the proposed project and the potential significant environmental impacts that may result from the alternatives to those of the proposed project.

NO PROJECT ALTERNATIVE

Under Alternative A: No Project, the proposed 310-unit, 40-story, 400-foot-tall (plus a 20-foot-tall parapet), 499,580-gross-square-foot residential building would not be constructed, and the existing conditions at the project site would not change. The existing buildings on the project site at 1500 Market Street (a three-story, 2,750-square-foot commercial building at the eastern end of the project site) and 1540 Market Street (a four-story, 48,225-sq.-ft. commercial building at the western end of the project site) would remain. The existing 30-car surface parking lot at the central portion of the project site would also remain in place. The Muni Van Ness station elevator entrance would remain in its existing location, at the easternmost end of the project site within the 1500 Market Street building. The project site's height district boundaries would remain as currently legislated and as proposed by the project.

The No Project Alternative does not preclude potential future development with the types of land uses that the Planning Code may permit at the project site. Activities at the site are based on a presumption that the site's uses continue into the future in order to compare the impacts of the project to those of not implementing the project. Consideration of any other future uses for a No Project Alternative would be speculative absent a specific development application. The No Project Alternative would not result in changes to Oak and Franklin streets to accommodate emergency vehicle access. A No Project Alternative would not facilitate a publicly accessible "Oak Plaza" as opposed to the proposed project, which would provide such an amenity. A No Project Alternative would not entail installation of wind canopies in the public right-of-way, because there would be no high-rise building at the site which could create strong winds that would require ameliorating.

ALTERNATIVE B: PODIUM-ONLY ALTERNATIVE

Alternative B: Podium-only Alternative would comply with the existing height and bulk limits by reducing the height of the proposed building compared to the proposed project. Under this alternative, a new 12-story residential building measuring 120 feet tall (136 feet tall including a

Table S.3: Comparison of Characteristics and Significant Impacts of the Proposed Project to the Alternatives

	Proposed Project	Alternative A: No Project (Existing Conditions)	Alternative B: Podium-only
Building Height	400 ft.	30-45 ft.	120 ft.
Stories	40	3-4	12
Uses	Residential with Ground-floor Commercial	Commercial (Retail, Parking, Office)	Residential with Ground-floor Commercial
Dwelling Units			
Studio	57 units	None	35 units
1 Bedroom	100 units	None	36 units
2 Bedroom	138 units	None	48 units
3 Bedroom	15 units	None	None
Total Units	310 units	None	119 units
GSF by Use			
Commercial (Existing)	None	50,975 gsf	None
Residential	435,465 gsf	None	160,070 gsf
Retail/Restaurant	4,025gsf	None	4,025 gsf
Parking	60,090 gsf	None	53,308 gsf
Total GSF	499,580 gsf	50,975 gsf	217,403 gsf
Parking and Loading			
Surface Parking Spaces	None	30	None
Residential Spaces	155	None	59
Carshare Spaces	2	None	2
Off-Street Truck Loading Spaces	1	None	1
Service Vehicle Loading Spaces	2	None	2
Bicycle Spaces			
Class 1	310	None	119
Class 2	60	None	8
Total Spaces	370	None	127

Summary
Table S.3 (continued)

	Proposed Project	Alternative A: No Project (Existing Conditions)	Alternative B: Podium-only
Public Open Space Oak Plaza Privately Owned Public Open Space Total Sq. Ft.	12,250 sq. ft. 1,645 sq. ft. 13,895 sq. ft.	None None None	12,250 sq. ft. 1,645 sq. ft. 13,895 sq. ft.
Comparison of Significant Impacts			
<i>Legend:</i> NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with mitigation; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable			
Transportation and Circulation – Cumulative Construction Traffic Impacts			
C-TR-7: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would contribute considerably to significant cumulative construction-related transportation impacts.	SUM	NI	SUM
<i>Note:</i> gsf – gross square feet <i>Source:</i> SWCA/Turnstone Consulting			

mechanical penthouse) would be constructed within the building site. The new building would contain 119 dwelling units (191 fewer units than under the proposed project), consisting of 35 studio units, 36 one-bedroom units, and 48 two-bedroom units. Residential uses would total 160,070 gsf (including residential units, lobby, amenity, circulation, and services). Like the proposed project, this alternative would also provide for 4,025 gsf of ground-floor retail/restaurant uses. Parking uses would total 53,308 gsf (6,782 gsf less than the proposed project). The alternative would provide fewer residential parking spaces than the proposed project (59 as compared to 155 spaces). Like the proposed project, the Podium-only Alternative would provide two carshare spaces, one off-street truck loading space, and two service vehicle loading spaces. This alternative would include fewer bicycle parking spaces than the proposed project (127 spaces as compared to 370). It would have the same on-site right-of-way improvements as the proposed project, including construction of the proposed Oak Plaza and wind canopy within Oak Plaza; the same access to and operation of the parking garage, bicycle parking, and loading as that of the proposed project; and the same offsite features as with the proposed project, including the contraflow fire lane on Franklin Street, Muni Van Ness station elevator relocation, on-street parking and commercial loading along Oak Street, and the offsite wind canopy.

Like the proposed project, this alternative would have similar less-than-significant project-level and cumulative-level transportation impacts (with reduced effects), including a significant unavoidable impact (with mitigation) regarding cumulative construction traffic, although the construction period for the alternative would be 4 to 6 months shorter than that for the proposed project or its variant. The mitigation and improvement measures identified for the proposed project or its variant would also apply to the Podium-Only Alternative.

Unlike the proposed project, the Podium-only Alternative would conform to the existing height and bulk districts applicable to the project site. As with the proposed project or its variant, this alternative would have less-than significant project-level and cumulative-level wind and shadow impacts, but its effects would be reduced and, unlike the proposed project or its variant, it would not cast shadow on Patricia's Green, Page and Laguna Mini Park, or Koshland Park during the times of day covered under Planning Code Section 295.

The Podium-only Alternative would require most of the same discretionary project approvals identified on pp. 2.33-2.36. However, it would not require any joint determination by the Recreation and Park Commission and Planning Commission under Planning Code Section 295 because shadow under this alternative would not reach any Recreation and Park property during the applicable times of day specified under Section 295. It would not require any action of the Planning Commission or Board of Supervisors related to shifting the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836 and reclassifying Lot 1 on Assessor's Block 0836 to 120-R-2.

The Podium-only Alternative could feasibly attain most of the project sponsor's basic objectives of the proposed project, as presented in **Chapter 2, Project Description**, on pp. 2.1-2.2. Compared to the proposed project, this alternative would not maximize the opportunity to increase the supply of housing in an area designated for higher residential density due to its proximity to downtown and accessibility to local and regional transit. In addition to fewer units, this alternative would have no tower units on desirable upper floors to maximize window exposure and views from the units. As such, this alternative would produce a substantially lower return on investment for the project sponsor and investors. Additionally, this alternative would not provide a high-rise residential tower at this prominent intersection as envisioned by the Market & Octavia Area Plan.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Pursuant to CEQA Guidelines Section 15126.6(e)(2), an EIR is required to identify the environmentally superior alternative from among the alternatives evaluated if the proposed project has significant impacts that cannot be mitigated to a less-than-significant level. The Environmentally Superior Alternative is the alternative that best avoids or lessens any significant effects of the proposed project, even if the alternative would impede, to some degree, the attainment of the project objectives. The No Project Alternative is considered the overall environmentally superior alternative, because the significant impacts associated with implementation of the proposed project would not occur with the No Project Alternative. The No Project Alternative, however, would not meet any of the objectives of the project sponsor.

If the No Project Alternative is environmentally superior, CEQA requires selection of the "environmentally superior alternative other than the no project alternative" from among the proposed project and the other alternatives evaluated. Due to its substantially reduced number of residential units (61.6 percent fewer than with the proposed project) and shorter tower (280 feet shorter than the proposed project), the Podium-only Alternative would be the environmentally superior alternative because it would result in an overall reduction of less-than-significant and significant transportation impacts as well as less-than-significant wind and shadow impacts identified for the proposed project. Like the proposed project or its variant, however, this alternative would have a significant and unavoidable construction-related transportation impact. **Mitigation Measure M-C-TR-7: Cumulative Construction Coordination**, identified for the proposed project or its variant and described on pp. 4.C.88-4.C.89, would also be applicable to this alternative, but would not reduce its significant construction-related transportation impact to a less-than-significant level.

ALTERNATIVES CONSIDERED BUT REJECTED

As discussed in greater detail in **Chapter 6, Alternatives**, CEQA Guidelines Section 15126.6 requires a discussion of only those alternatives that would feasibly obtain most of the project objectives but would avoid or substantially lessen any of the significant impacts of the project, with the intent of fostering informed decision-making.

An off-site alternative (in which the new building would be developed at another location) was rejected from consideration as an EIR alternative because it would not attain the project sponsor's objectives nor create high-density housing on the project site, which is designated for high-density residential use due to its proximity to downtown and local and regional transit, nor does the project sponsor have another suitable site for the proposed project.

Under a code-complying with tower alternative the 400-foot tower element would be shifted eastward by 4 feet, 7 inches. The position of the tower element under the proposed project is intended to reduce the horizontal dimension of the podium and thereby reduce the wind funneling effect that would result from a wider podium. As such, impacts related to wind would not improve or could worsen under such an alternative from the less-than-significant impact identified for the proposed project, due to the elongation of the east-west dimension of the 12-story podium base with the eastward shift of the tower which could increase the wind funneling effect. Additionally, shifting the tower to the west would allow for approximately 1,700 additional square feet of plaza area within the eastern portion of the building site. Shifting the tower westward would also allow for a widening of the Van Ness Avenue and Market Street sidewalks.

An 80-foot-tall podium-only alternative and a 40-foot-tall podium-only alternative (in which the new building would have the same building footprint as the proposed project, along with the same ground floor and plaza features, but would not have the tower portion and the top 40 feet and 80 feet, respectively, of the podium compared to the proposed project) were rejected from consideration as EIR alternatives because, although they would have reduced wind and shadow effects, they would not meet objectives of providing dense residential development in an area that is proximate to the downtown and accessible to transit, nor architectural and urban design objectives designated in the Market and Octavia Neighborhood Plan.

An 80-foot-tall podium with tower alternative and a 40-foot-tall podium with tower alternative (in which the new building would have the same building footprint as the proposed project, along with the same ground floor and plaza features, but lower podium heights of 40 feet and 80 feet, respectively, compared to the proposed project) were rejected from consideration as EIR alternatives because they would not substantially reduce environmental impacts as compared to the proposed project.

S.4. AREAS OF KNOWN CONTROVERSY AND ISSUES TO BE RESOLVED

The Planning Department prepared an Initial Study and published a Notice of Preparation of an EIR on June 17, 2015, announcing its intent to prepare and distribute a focused EIR (the NOP/IS is presented as Appendix A to this EIR). Publication of the NOP/IS initiated a 30-day public review and comment period that began on June 17, 2015, and ended on July 17, 2015.

Individuals and agencies that received these notices included owners of properties within 300 feet of the project site and potentially interested parties, including regional and state agencies. During the public review and comment period, two comment letters were submitted to the Planning Department by interested parties.

On the basis of public comments on the NOP/IS, potential areas of controversy for the proposed project include the following public concerns:

- **Wind:** Comments express concern regarding strong winds in the area, note the increased development activity over the past decade and many planned future projects that require continuous updating of the wind model, note the increase in residences in the area that has shifted the timing of pedestrian use, suggest a charge to maintain and update the model, and state that the effects on pedestrians must be considered for all projects because the City desires an active pedestrian environment
- **Aesthetics and Historical Resources:** Comments express concern with maintaining visual access to City Hall, an important visual landmark in the adjacent Civic Center.
- **Transportation:** Comments express concern for the provision of parking spaces for residents of the proposed project and other projects in the area that would make it more likely that they would use their cars during commute hours. Comments also express concern about the proliferation of delivery trucks and other vehicles that may double park, and about the proliferation of private commuter shuttles, or “Google” buses, and Academy of Art, California Pacific Medical Center, and University of California San Francisco shuttles that stop on routes along Van Ness Avenue and throughout this area.

A letter from the California Department of Transportation (Caltrans) notes that Van Ness Avenue is designated as U.S. Route 101 and is under Caltrans jurisdiction. It states that the Traffic Impact Study (TIS) prepared for the proposed project should analyze multi-modal demand, VMT reductions that could be achieved, and Travel Demand Management (TDM) measures. The letter notes that Caltrans is in the process of updating its TIS Guide for consistency with CEQA Statute Section 21099 (d), and it identifies particular items that the TIS should include, such as transportation impact fees to be used for mitigation, project participation in a TDM program, and City and County of San Francisco responsibility for implementing mitigation.

1. INTRODUCTION

A. PROJECT SUMMARY

The proposed One Oak Street Project, located at 1500-1540 Market Street, consists of the demolition of all existing structures on the project site and construction of a new 310-unit, 40-story residential tower (400 feet tall, plus a 20-foot-tall parapet) with ground-floor commercial space, one off-street loading space, and a subsurface parking garage for residents. Bicycle parking would be provided for residents on a second-floor mezzanine and for visitors in bicycle racks on adjacent sidewalks. The proposed project would also include the following: construction of a public plaza within the Oak Street right-of-way; construction of several wind canopies within the proposed plaza and one wind canopy within the sidewalk at the northeast corner of Market Street and Polk Street to reduce pedestrian-level winds; relocation of the existing Van Ness Muni station elevator entrance from the eastern end of the project site to the ground floor of the existing One South Van Ness building at the southeast corner of South Van Ness Avenue and Market Street, approximately 170 feet from its current location, with two elevators provided at the new location compared to one existing; and creation of a southbound contraflow fire lane exclusively for emergency vehicles along the east side of Franklin Street between Market Street and Oak Street that would shift the three existing northbound travel lanes on Franklin Street to the west.

An optional scheme that would relocate the existing Muni elevator north into the proposed Oak Plaza is also being studied in this EIR as a variant to the proposed project. This variant would not include the proposed contraflow fire lane.

The proposed project would require the adoption of legislative amendments to shift the existing Height and Bulk District 120/400-R-2 boundary at the eastern end of the project site to the western end of the project site.

B. PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

This Environmental Impact Report (EIR) has been prepared by the San Francisco Planning Department (Planning Department) in the City and County of San Francisco, the Lead Agency for the proposed project, in compliance with the provisions of the California Environmental Quality Act (California Public Resources Code Section 21000 et seq., “CEQA”), the CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq., “CEQA Guidelines”), and Chapter 31 of the San Francisco Administrative Code. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project.

Pursuant to CEQA Guidelines Section 15161, this is a project-level EIR, which examines the physical environmental impacts of a specific development project. As determined and guided by findings of the Initial Study (see **Appendix A** to this EIR), this EIR evaluates the potential for the project to cause potentially significant impacts under the environmental topics of Transportation and Circulation, Wind, and Shadow. As defined in CEQA Guidelines Section 15382, a “significant effect on the environment” is:

. . . a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

Section 21099(d) of the CEQA statute directs that the aesthetic and parking impacts of mixed-use residential infill projects located in transit priority areas are not considered impacts on the environment under CEQA. The proposed project meets the definition of a residential, mixed-use infill project in a transit priority area. Accordingly, this EIR does not contain a separate discussion of the topic of aesthetics. The EIR nonetheless provides visual simulations for informational purposes as part of **Chapter 2, Project Description**.

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 multi-modal transportation networks, and a diversity of land uses.” CEQA Section 21099(b)(2) states that upon certification of the revised CEQA Guidelines for determining transportation impacts pursuant to Section 21099(b)(1), automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA.

In January 2016, the Office of Planning and Research (OPR) published for public review and comment a *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*¹ (proposed transportation impact guidelines) recommending that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. VMT measures the amount and distance that a project might cause people to drive, accounting for the number of passengers within a vehicle.

OPR’s proposed transportation impact guidelines provide substantial evidence that VMT is an appropriate standard to use in analyzing transportation impacts to protect environmental quality

¹ This document is available online at https://www.opr.ca.gov/s_sb743.php.

and a better indicator of greenhouse gas, air quality, and energy impacts than automobile delay. Acknowledging this, San Francisco Planning Commission Resolution 19579, adopted on March 3, 2016:

- found that automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall no longer be considered a significant impact on the environment pursuant to CEQA, because it does not measure environmental impacts and therefore does not protect environmental quality.
- directed the Environmental Review Officer to remove automobile delay as a factor in determining significant impacts pursuant to CEQA for all guidelines, criteria, and list of exemptions, and to update the Transportation Impact Analysis Guidelines for Environmental Review and Categorical Exemptions from CEQA to reflect this change.
- directed the Environmental Planning Division and Environmental Review Officer to replace automobile delay with VMT criteria which promote the reduction of greenhouse gas emissions, the development of multi-modal transportation networks, and a diversity of land uses; and consistent with proposed and forthcoming changes to the CEQA Guidelines by OPR.

Planning Commission Resolution 19579 became effective immediately for all projects that have not received a CEQA determination and all projects that have previously received CEQA determinations, but require additional environmental analysis.

Accordingly, this EIR does not contain a discussion of automobile delay impacts. Instead, a VMT and induced automobile travel impact analysis is provided in **Section 4.C, Transportation and Circulation**. Nonetheless, automobile delay may be considered by decision-makers, independent of the environmental review process, as part of their decision to approve, modify, or disapprove the proposed project. (See pp. 4.A.1-4.A.3 for further discussion of CEQA Section 21099.)

As stated in CEQA Guidelines Section 15121(a), an EIR is an informational document intended to inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. CEQA requires that public agencies not approve projects until all feasible means available have been employed to substantially lessen the significant environmental effects of such projects.²

Before any discretionary project approvals may be granted for the project, the San Francisco Planning Commission (Planning Commission) must certify the EIR as adequate, accurate, and

² “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time taking into account economic, environmental, social, and technological factors (Public Resources Code Section 21061.1).

objective. EIR adequacy is defined in CEQA Guidelines Section 15151, Standards for Adequacy of an EIR, which states:

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

The degree of specificity required in an EIR should “correspond to the degree of specificity involved in the underlying activity which is described in the EIR” (CEQA Guidelines Section 15146).

City decision-makers will use the certified EIR, along with other information and public processes, to determine whether to approve, modify, or disapprove the proposed project, and to require any feasible mitigation measures as conditions of project approval.

C. ENVIRONMENTAL REVIEW PROCESS

On February 26, 2009, a previous project sponsor submitted an Environmental Evaluation Application to the Planning Department for a previous proposal within the project site (then, the “1510-1540 Market Street Project”). The previous project (a 37-story, 435-foot-tall, 258-unit residential tower with ground-floor retail and 69 parking spaces in two basement levels) occupied Lots 2, 3, 4, and 5 but did not include the easternmost lot on the block (Lot 1) within the project site. The Planning Department published a Notice of Preparation for the previous project on October 10, 2012. That project did not advance.

The current project sponsor, One Oak Owner, LLC, has submitted a revised Environmental Evaluation Application to the Planning Department for the currently proposed project under the same Planning Department Case Number as that assigned to the previously proposed project (Case No. 2009.0159E). The current proposal includes Lot 1 in the project site. The environmental review process for this project includes a number of steps: publication and circulation for public comment of a Notice of Preparation/Initial Study (NOP/IS); publication of a Draft EIR for public review and comment; preparation and publication of responses to public and agency comments on the Draft EIR; and certification of the Final EIR.

NOTICE OF PREPARATION/INITIAL STUDY

The Planning Department prepared an Initial Study and published a Notice of Preparation of an EIR on June 17, 2015, announcing its intent to prepare and distribute a focused EIR (the NOP/IS is presented as **Appendix A** to this EIR). This notice was attached to an Initial Study.

Environmental Effects Found to Be Less than Significant, or Less than Significant with Mitigation, in the Initial Study

The NOP/IS found that the following environmental effects of the project, as fully analyzed in the NOP/IS, would be less than significant or less than significant with mitigation:

- Land Use and Land Use Planning
- Population and Housing
- Cultural and Paleontological Resources
- Noise
- Air Quality
- Greenhouse Gas Emissions
- Recreation
- Utilities and Service Systems
- Public Services
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Hazards and Hazardous Materials
- Mineral and Energy Resources
- Agricultural and Forest Resources

The project sponsor has revised its project from that described and analyzed in the NOP/IS to what currently constitutes the proposed project studied in this EIR. The number of residential units would be reduced from 320 units to 310 units. The number of residential parking spaces would be reduced from 160 spaces as previously proposed to 155 spaces. The amount of ground-floor restaurant/retail space would be reduced from 12,970 gsf as described in the NOP/IS to 4,025 gsf as revised.

The current proposal, as described in detail in **Chapter 2, Project Description**, represents a slightly reduced development program and does not differ substantially from that of the project described in the NOP/IS. Its conclusions continue to be applicable to the proposed project with respect to each of the topics that are determined either to be less than significant or to be reduced

to a less-than-significant level through recommended mitigation measures included in the NOP/IS. The proposed project, as currently revised, would include the same uses as those described in the NOP/IS, would not change the nature, nor increase the intensity of proposed land uses described in the NOP/IS, and would occupy the same site and position within the site as that described in the NOP/IS. The impacts described in the NOP/IS would remain substantially the same for the proposed project as revised in this EIR and do not represent any new environmental effects not already identified and evaluated in the NOP/IS under the topics listed above. No further evaluation under those topics is required in this EIR.

Environmental Effects Requiring Further Study in the EIR

The NOP/IS determined that the proposed project could result in potentially significant environmental impacts, and that an analysis of the following environmental topics is required in an EIR:

- Transportation and Circulation
- Wind
- Shadow

As noted on p. 1.2, the proposed project is subject to CEQA Statute Section 21099 (d), which eliminates aesthetics and parking as impacts that can be considered in determining the significance of physical environmental effects under CEQA for projects meeting the definition of an infill project in a transit priority area. Accordingly, this EIR does not contain a separate discussion of the topic of Aesthetics, although renderings illustrating the proposed project are included in the project description for informational purposes. (See **Chapter 2, Project Description**, pp. 2.18-2.19.) Parking is discussed under the topic of Transportation and Circulation for informational purposes only. (See pp. 4.A.1-.2 for more information.) With respect to the topic of Land Use, the Initial Study (see **Appendix A**) found that the proposed project would not disrupt or divide the surrounding neighborhood or adversely affect the character of its vicinity. This EIR includes a brief description of surrounding land uses and planning information in **Chapter 4.B, Land Use and Land Use Planning**, to contextualize the project setting for the reader.

PUBLIC REVIEW OF AND COMMENTS ON THE NOP/IS

Publication of the NOP/IS (see **Appendix A**) initiated a 30-day public review and comment period that ended on July 17, 2015. During the public review and comment period, the Planning Department received two comment letters from interested parties pertaining to the topics of

traffic, aesthetics, urban design, wind, and shadow.³ The Planning Department has considered the comments made by commenters in preparation of the Draft EIR for the proposed project. Comments that relate to environmental issues are summarized below and are addressed in the NOP/IS or in this EIR, as noted.

Wind

Comments express concern regarding strong winds in the area, note the increased development activity over the past decade and many planned future projects that require continuous updating of the wind model, note the increase in residences in the area, which has altered the timing of peak pedestrian activity in the area, suggest a charge to maintain and update the model, and state that the effects on pedestrians must be considered for all projects because the City desires an active pedestrian environment.

Aesthetics and Historical Resources

Comments express concern about the project's effect on views and with maintaining visual access to City Hall, an important visual landmark in the adjacent Civic Center.

Transportation

Comments express concern that the provision of parking spaces for residents of the proposed project and other projects in the area would make it more likely that they would use their cars during commute hours. Comments also express concern about the proliferation of delivery trucks and other vehicles that may double park, and about the proliferation of private commuter shuttles, including those operated by Google, the Academy of Art, California Pacific Medical Center, and University of California San Francisco that stop on routes along Van Ness Avenue and throughout the vicinity.

A letter from the California Department of Transportation (Caltrans) notes that Van Ness Avenue is designated as U.S. Route 101 and is under Caltrans jurisdiction. It states that the Traffic Impact Study (TIS) prepared for the proposed project should analyze multi-modal demand, VMT reductions that could be achieved, and Travel Demand Management (TDM) measures. The letter notes that Caltrans is in the process of updating its TIS Guide for consistency with CEQA Statute Section 21099 (d), and it identifies particular items that the TIS should include and the City and County of San Francisco should implement, such as transportation impact fees to be used for mitigation and project participation in a TDM program.

³ The comment letters received in response to the NOP/IS are available for review at the Planning Department offices as part of Case File No. 2009.0159E.

DRAFT EIR

This Draft EIR has been prepared in accordance with CEQA and the CEQA Guidelines. It provides an analysis of the project-specific physical environmental impacts of construction and operation of the proposed project, and considers the potential for the project to contribute to cumulative effects, which are impacts of the project that could combine with those from other foreseeable projects.

Copies of the Draft EIR are available at the Planning Information Counter, San Francisco Planning Department, 1660 Mission Street, 1st Floor, San Francisco, CA 94103. The Draft EIR is also available for viewing or downloading at the Planning Department website, <http://tinyurl.com/sfceqadocs>, by choosing the link for Negative Declarations and EIRs under “Current Documents for Public Review” and searching for Case File No. 2009.0159E. You may also request that a copy be sent to you by calling (415) 575-9033 or emailing the EIR Coordinator, Michael Jacinto, at michael.jacinto@sfgov.org.

Specific technical studies prepared for the environmental analysis of the One Oak Street Project include the following:

- *Historical Resource Evaluation, 1540 Market Street*, by Kelley & VerPlanck (2009, revised March 2010);
- *Archaeological Research Design and Treatment Plan for the 1510-1540 Market Street Project*, by William Self Associates (2012);
- *Environmental Noise and Vibration Assessment*, by Brown-Buntin Associates, Inc. (2013);
- *GHG Analysis: Compliance Checklist*, by SWCA/Turnstone Consulting (2015);
- *Preliminary Geotechnical Study*, by Langan Treadwell Rollo (2011);
- *Phase I Environmental Site Assessment*, by John Carver Consulting (2014);
- *Transportation Impact Study*, by LCW Consulting (2016);
- *Wind Microclimate Study*, by BMT Fluid Mechanics (2016); and
- *Technical Memorandum: Evaluation of Potential Proposition K Shadows for the Proposed One Oak Street High-Rise Project, San Francisco, CA*, by ESA (2016).

All documents referenced in this Draft EIR, and the distribution list for the Draft EIR, are available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103, as part of Case File No. 2009.0159E.

How to Comment on the Draft EIR

This Draft EIR was published on November 16, 2016. There will be a public hearing before the Planning Commission during the 56-day public review and comment period for this EIR to solicit public comment on the adequacy and accuracy of information presented in this Draft EIR. The public comment period for this EIR is November 16, 2016 to January 10, 2017. The public hearing on this Draft EIR has been scheduled before the Planning Commission for January 5, 2017 in Room 400, City Hall, 1 Dr. Carlton B. Goodlett Place beginning at 12:00 p.m. or later. Please call (415) 558-6422 the week of the hearing for a recorded message giving a more specific time. In addition, members of the public are invited to submit written comments on the adequacy of the document, that is, whether this Draft EIR identifies and analyzes the possible environmental impacts and identifies appropriate mitigation measures. Comments are most helpful when they suggest specific alternatives and/or additional measures that would better mitigate significant environmental effects.

Written comments should be submitted to:

Lisa M. Gibson, Acting Environmental Review Officer
Re: One Oak Street (1500-1540 Market Street) Project Draft EIR
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

Comments may also be submitted by email to lisa.gibson@sfgov.org. Comments must be received by 5:00 p.m. on January 10, 2017.

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

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

FINAL EIR

Following the close of the Draft EIR public review and comment period, the Planning Department will prepare and publish a document entitled "Responses to Comments," which will contain a copy of all comments on this Draft EIR and the City's responses to all comments that relate to physical environmental effects, along with copies of the letters received and a transcript of the Planning Commission public hearing on the Draft EIR. This Draft EIR, together with the

Responses to Comments document, will be considered by the Planning Commission in an advertised public meeting, and then certified as a Final EIR, if deemed adequate.

The Planning Commission and the Board of Supervisors will use the information in the Final EIR in their deliberations on whether to approve, modify, or deny the proposed project or aspects of the proposed project. If the Planning Commission and the Board of Supervisors decide to approve the proposed project, their approval actions must include findings that identify significant project-related impacts that would result; discuss mitigation measures or alternatives that have been adopted to reduce significant, unavoidable impacts to less-than-significant levels; determine whether mitigation measures or alternatives are within the jurisdiction of other public agencies; and explain reasons for rejecting mitigation measures or alternatives if any are infeasible for legal, social, economic, technological, or other reasons.

A Mitigation Monitoring and Reporting Program (MMRP) must be adopted by the Planning Commission and the Board of Supervisors as part of the adoption of the CEQA findings and project approvals by those bodies to the extent that mitigation measures are made part of the proposed project. The MMRP identifies the measures included in the proposed project or imposed by the decision-makers as conditions of approval, the entities responsible for carrying out the measures, and the timing of implementation. If significant unavoidable impacts would remain after all feasible mitigation measures are implemented, the approving body, if it elects to approve the proposed project, must adopt a statement of overriding considerations explaining how the benefits of the proposed project would outweigh the significant impacts.

D. ORGANIZATION OF THIS EIR

This EIR is organized into eight chapters and one appendix, as described below.

The **Summary** chapter provides a concise overview of the proposed project and the necessary approvals; the environmental impacts that would result from the proposed project; mitigation measures identified to reduce or eliminate these impacts; project alternatives; and areas of known controversy and issues to be resolved.

Chapter 1, Introduction, describes the type, purpose, and function of the EIR; the environmental review process and the comments received on the NOP/IS; and the organization of this document.

Chapter 2, Project Description, presents details about the proposed project and the approvals required to implement it.

Chapter 3, Plans and Policies, describes potential inconsistencies of the proposed project with applicable federal, state, regional, and local plans and policies.

Chapter 4, Environmental Setting and Impacts, addresses the following topics: Land Use and Land Use Planning; Transportation and Circulation; Wind; and Shadow. Each topic section includes a description of existing conditions with respect to the particular environmental topic (environmental setting); the regulatory framework by topic; the approach to analysis, when appropriate; identification and evaluation of project-specific and cumulative impacts; and mitigation measures and improvement measures, when appropriate.

Chapter 5, Other CEQA Issues, addresses potential growth-inducing impacts of the proposed project and identifies significant effects that cannot be avoided if the proposed project is implemented, as well as significant irreversible impacts of the project such as committing non-renewable energy and other resources in project construction and operation, and areas of known controversy and project-related issues that have not been resolved.

Chapter 6, Alternatives, presents and analyzes a range of alternatives to the proposed project. Two alternatives are described and evaluated: Alternative A: No Project Alternative, and Alternative B: Podium-only Alternative. This chapter identifies the environmentally superior alternative. It also discusses alternatives considered for analysis in the EIR but rejected, and gives the reasons for rejection.

Chapter 7, Report Preparers, identifies the EIR authors and the agencies, organizations, and individuals who were consulted during preparation of the Draft EIR. The project sponsor, project sponsor's counsel, and environmental consultants are also listed.

Appendix A: Notice of Preparation/Initial Study, presents the NOP/IS for the proposed project.

2. PROJECT DESCRIPTION

A. PROJECT OVERVIEW

The proposed One Oak Street Project consists of the demolition of all existing structures on the project site at 1500-1540 Market Street and construction of a new 310-unit, 40-story residential tower (400 feet tall, plus a 20-foot-tall parapet) with ground-floor commercial space, one off-street loading space, and a subsurface parking garage for residents. Bicycle parking would be provided for residents on the second-floor mezzanine and for visitors in bicycle racks on adjacent sidewalks. The proposed project would also include the following: construction of a public plaza within the Oak Street right-of-way; construction of several wind canopies within the proposed plaza and one wind canopy within the sidewalk at the northeast corner of Market Street and Polk Street to reduce pedestrian-level winds; relocation of the existing Van Ness Muni station elevator entrance from the eastern end of the project site to the ground floor of the existing One South Van Ness building at the southeast corner of South Van Ness Avenue and Market Street, approximately 170 feet from its current location, with two elevators provided at the new location compared to one existing; and creation of a southbound contraflow fire lane exclusively for emergency vehicles along the east side of Franklin Street between Market Street and Oak Street that would shift the three existing northbound travel lanes on Franklin Street to the west.

An optional scheme that would relocate the existing Muni elevator north into the proposed Oak Plaza is also being studied in this EIR as a variant to the proposed project. This variant would not include the proposed contraflow fire lane.

The proposed project would necessitate approval of legislative text and map amendments to shift the existing Height and Bulk District 120/400-R-2 designation at the eastern end of the project site (Assessor Block 0836/01) to the western end of the project site (Assessor Block 0836/05).

B. PROJECT SPONSOR'S OBJECTIVES

The project sponsor seeks to achieve the following objectives by undertaking the One Oak Street Project:

- to increase the City's supply of housing in an area designated for higher density due to its proximity to downtown and accessibility to local and regional transit.
- to create a welcoming public plaza that calms vehicular traffic, encourages pedestrian activity, and celebrates the cultural arts.
- to permit a more gracious and engaging street-level experience for pedestrians, transit users, and future residents.

- to realize the uses at intensities envisioned in the *Market and Octavia Neighborhood Plan* while incorporating feasible means to reduce project winds on public areas.
- to construct a high-quality project with enough residential floor area to produce a return on investment sufficient to attract private capital and construction financing.
- to encourage and enliven pedestrian activity by developing ground-floor retail and public amenity space that complements existing uses and serves neighborhood residents and visitors, and responds to future users who will be accessing the site and future Bus Rapid Transit (BRT) stations in the area.
- to improve the architectural and urban design character of the project site by replacing existing utilitarian structures and a surface parking lot with a prominent residential tower that provides a transition between two planning districts.
- to provide adequate parking and vehicular and loading access to serve the needs of project residents and their visitors.

C. PROJECT LOCATION AND SITE

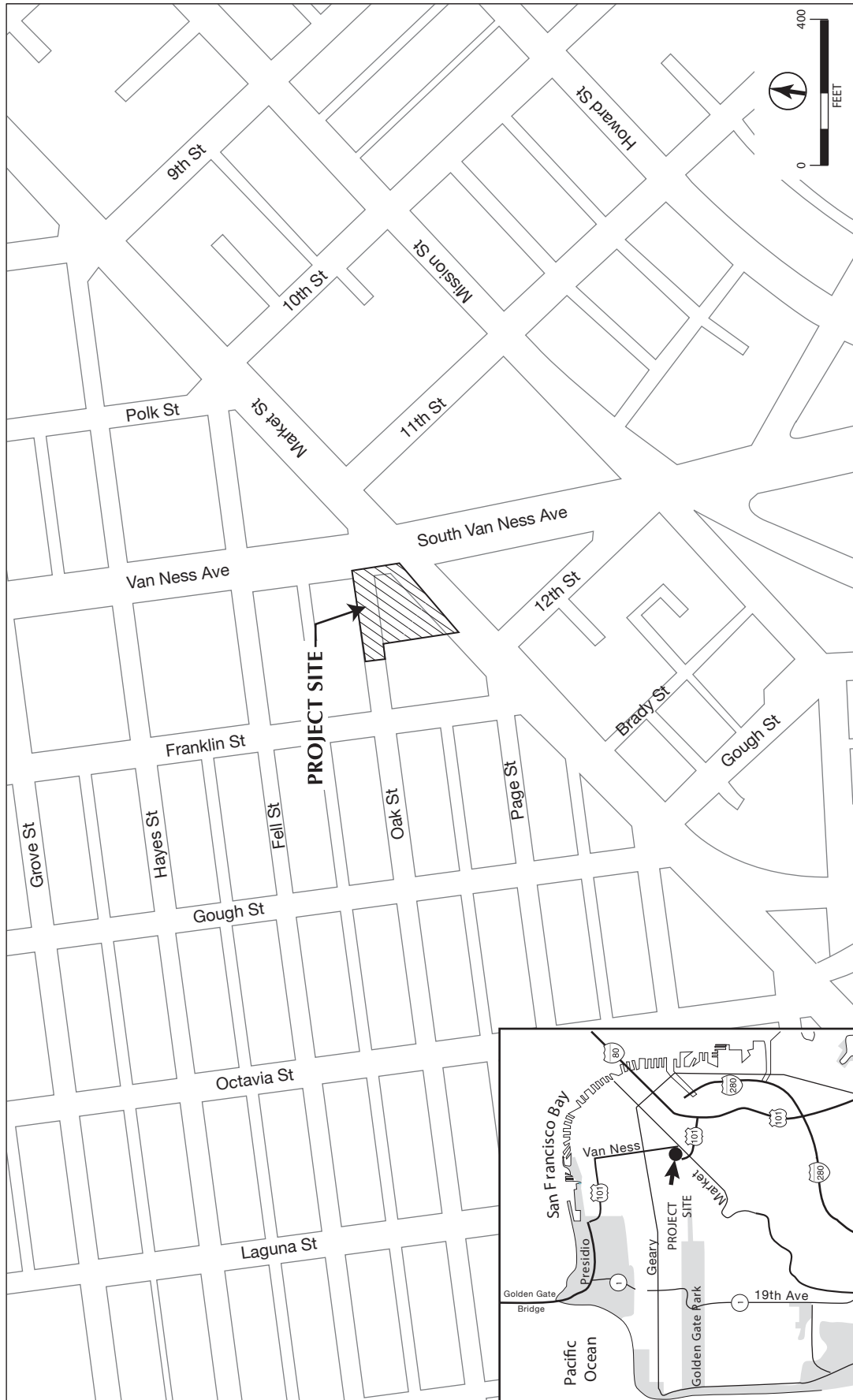
PROJECT LOCATION

The project site is located at 1500-1540 Market Street at the northwest corner of the intersection of Market Street, Oak Street, and Van Ness Avenue in the southwestern portion of San Francisco's Downtown/Civic Center neighborhood (see **Figure 2.1: Project Site Location**).

The project site is entirely within the following zoning districts: the C-3-G (Downtown Commercial, General) District, with an overlay of the Market Street Special Sign District (Planning Code Section 608.8), and the Van Ness and Market Downtown Residential Special Use District (SUD) (Planning Code Section 249.33). Most of the project site is within the 120/400-R-2 Height and Bulk District that establishes a 120-foot-tall limit for the height of the building's podium base, and a 400-foot-tall height limit that could accommodate a tower. The westernmost portion of the project site is within the 120-R-2 Height and Bulk District. The project site is also within the *Market and Octavia Area Plan* area. See **Chapter 3, Section C, San Francisco Planning Code**, pp. 3.5-3.7, for more information.

PROJECT SITE

The project site collectively includes both a "building site" component and a "right-of-way improvement area" component within surrounding public rights-of-way. These two components are described below (see **Figure 2.2: Existing Project Site and Surroundings**).

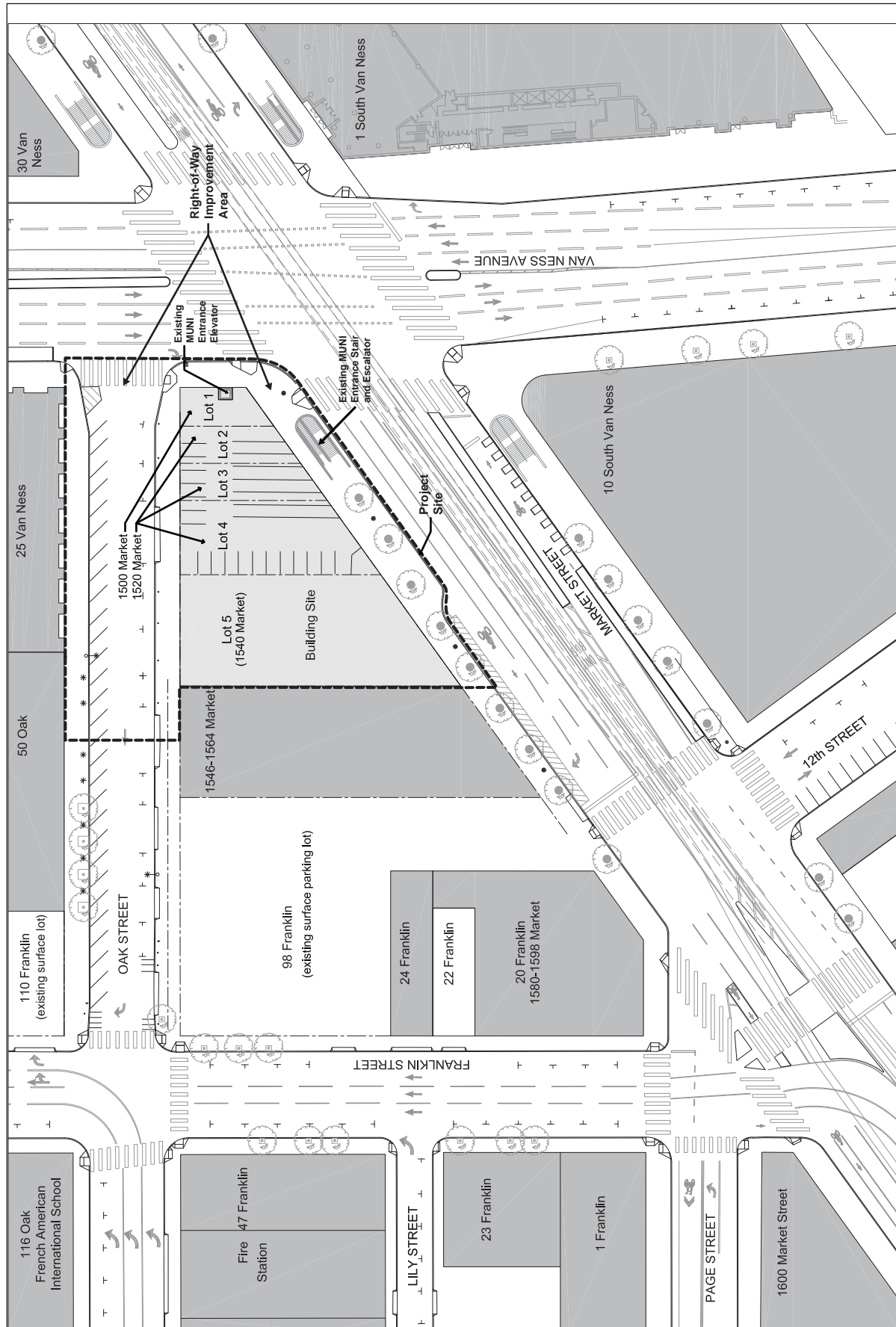


Source: SWCA / Turnstone Consulting (2016)

ONE OAK PROJECT

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FIGURE 2.1: PROJECT SITE LOCATION



Source: SCB/Snehetta (2016)



ONE OAK PROJECT
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FIGURE 2.2: EXISTING PROJECT SITE AND SURROUNDINGS

Building Site

The project's building site is made up of five contiguous privately owned lots within Assessor's Block 836 (Lots 1, 2, 3, 4, and 5), an 18,735-square-foot (sq. ft.) trapezoid, bounded by Oak Street to the north, Van Ness Avenue to the east, Market Street to the south, and the interior property line shared with the neighboring property to the west (1546-1564 Market Street). The building site measures about 177 feet along its Oak Street frontage, 39 feet along Van Ness Avenue, 218 feet along Market Street, and 167 feet along its western interior property line. The existing street address of the project parcels is referred to as 1500-1540 Market Street.

The easternmost portion of the building site, 1500 Market Street (Lot 1), is currently occupied by an existing three-story, 2,750-sq.-ft. commercial building, built in 1980. This building is partially occupied by a convenience retail use ("All Star Café") on the ground floor and also contains an elevator entrance to the Muni Van Ness station that opens onto Van Ness Avenue. Immediately west of the 1500 Market Street building is an existing 30-car surface parking lot (on Lots 2, 3, and 4). The parking lot is fenced along its Market Street and Oak Street frontages and is entered from Oak Street. The westernmost portion of the building site at 1540 Market Street (Lot 5) is occupied by a four-story, 48,225-sq.-ft. commercial office building, built in 1920. As of 2016, this building is currently partially occupied.

Right-of-Way Improvement Area

In addition to the building site, the project site also includes surrounding areas within the adjacent public rights-of-way (collectively, the "right-of-way improvement area") in which streetscape improvements would be constructed as part of the proposed project. Proposed improvements include narrowing a segment of Oak Street for vehicular traffic ("shared street"), creating a proposed pedestrian plaza, and constructing several free-standing wind canopies, as described on pp. 2.22-2.25.

Oak Street currently runs one way, westbound, between Van Ness Avenue and Franklin Street. The proposed right-of-way improvement area includes a segment of the Oak Street right-of-way (including roadway and sidewalks) along the Oak Street frontages of Lots 1-5 (see **Figure 2.2** on p. 2.4). The portion of the Oak Street right-of-way within the project site's right-of-way improvement area measures about 69 feet wide north to south, from the opposing lot line along the north side of Oak Street to the north lot line of the building site. The segment of the Oak Street right-of-way within the project's improvement area measures about 202 feet long east to west, from the west curb line along Van Ness Avenue to about 10 feet west of the western extent of the building site's Oak Street frontage.

As illustrated on **Figure 2.2**, the project site's right-of-way improvement area also includes the sidewalk areas along the Van Ness Avenue and Market Street frontages of the building site component of the project site. Adjacent to the project site to the east, the existing Van Ness Avenue sidewalk is about 15 feet wide. The existing Market Street sidewalk is about 25 feet wide and narrows to 15 feet at the western end of the project site. The escalator and stairway entrance to the Van Ness Muni Metro station occupies a portion of the sidewalk, narrowing the walkway to 9 feet. The sidewalk along Market Street is paved in characteristic red brick and includes three of the 327 historic "Path of Gold" light standards that line Market Street (1-2470 Market Street, San Francisco Landmark #200).

The proposed project also includes other features that are in nearby areas outside of the project site. These proposed offsite components are discussed below on pp. 2.26-2.30.

D. PROJECT CHARACTERISTICS

The proposed project's operational and physical characteristics, including its proposed uses, building form, right-of-way improvements, parking and loading, as well as offsite features are discussed below. Information pertaining to the type and duration of construction activities associated with the proposed building program follows, in addition to a brief description of a project variant.

PROPOSED USES

The use program for the proposed project is summarized in **Table 2.1: Summary of Proposed Project Uses** and further described below.

Residential Use

The proposed project would include a total of 310 residential units, consisting of about 57 studio units (18.4 percent), 100 one-bedroom units (32.3 percent), 138 two-bedroom units (44.5 percent), and 15 three-bedroom units (4.8 percent). Total building space allocated to residential use (including residential units, lobby, amenities, circulation, storage, systems, and services) would be about 435,465 gross square feet (gsf). Residential units and amenities would be located on floors 3-40.

Table 2.1: Summary of Proposed Project Uses

BUILDING AREA TOTAL		499,580 gsf^a
Residential Space		
Dwelling Units		329,560 gsf
Lobby		910 gsf
Amenity		16,600 gsf
Circulation, Storage, Systems, Services		88,395 gsf
Total Residential		435,465 gsf
Parking (car elevator), Loading, Bicycle Parking		60,090 gsf
Retail/Restaurant		4,025 gsf
DWELLING UNIT TYPE AND TOTAL		310 units
Studio		57 units
One Bedroom		100 units
Two Bedroom		138 units
Three Bedroom		15 units
PARKING, LOADING, AND BICYCLE SPACES		
Resident Parking Garage		155 spaces
Carshare		2 spaces
Truck Loading		1 space
Service Vehicle Loading Spaces		2 spaces
Bicycle Spaces		370 spaces
Class 1 ^b		310 spaces
Class 2		60 spaces
PUBLICLY ACCESSIBLE OPEN SPACE		
Oak Plaza (within Oak Street right-of-way)		12,250 sq. ft.
Privately Owned Public Open Space		1,645 sq. ft.

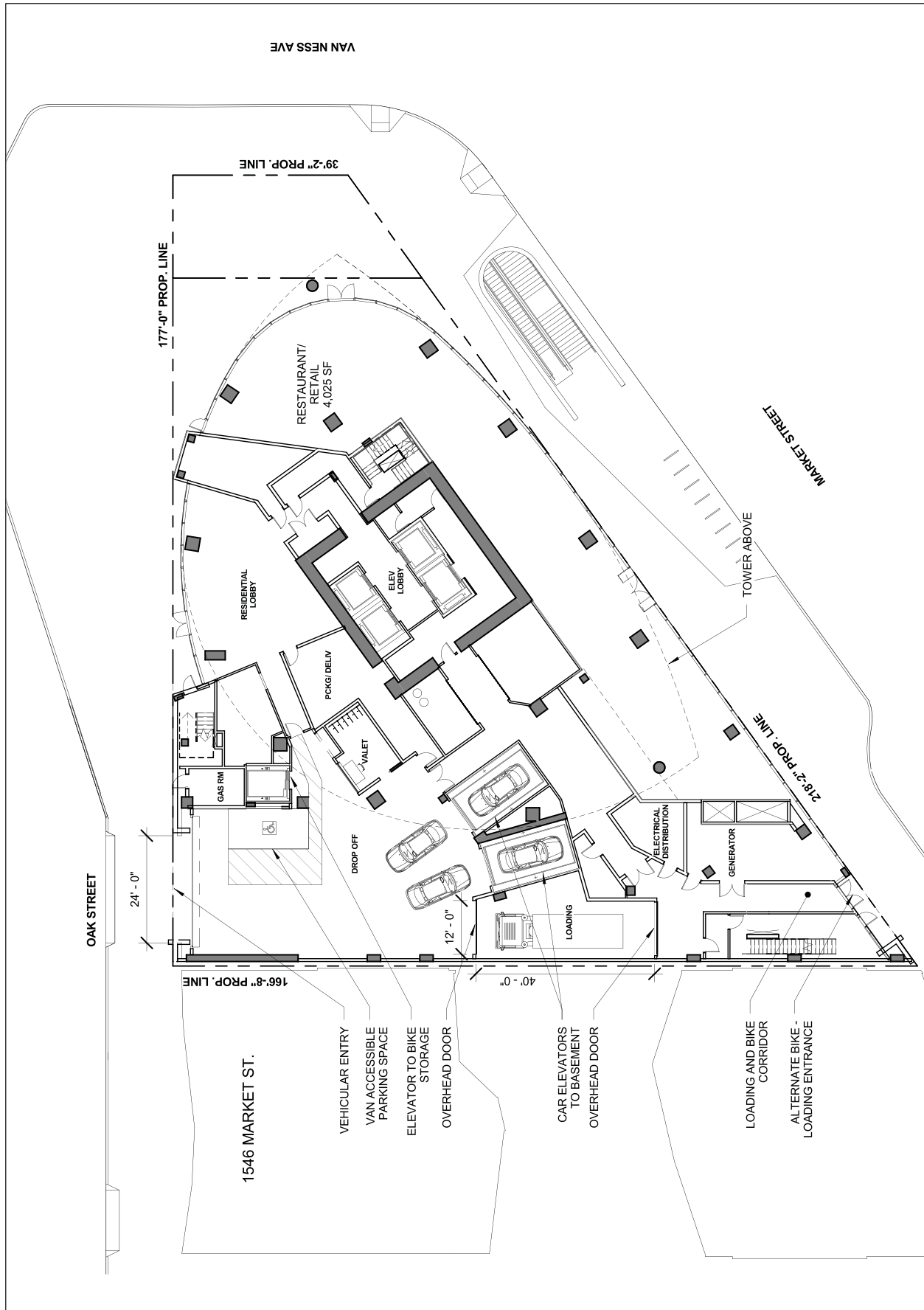
Notes:

a. gsf – gross square feet

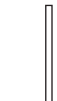
b. Class 1 Bicycle Parking Spaces are “Facilities which protect the entire bicycle, its components and accessories against theft and inclement weather, including wind-driven rain (Planning Code Section 155.1(a)). Class 1 bicycle parking would be provided in the building interior. Class 2 bicycle parking would be provided on racks along the building’s Oak Street frontage subject to MTA approval.

Sources: One Oak Owner, LLC; SWCA/Turnstone Consulting, 2016

Pedestrian access to the ground-floor entrance of the proposed building would be through lobby entrance doors located along Oak Street (see **Figure 2.3: Proposed Ground Floor Plan**). From the lobby, residents would access elevators to residential units on the upper floors (floors 3-40). Bicycle parking for residents would be located within the second-floor mezzanine (see **Figure 2.4: Proposed Second-Floor Plan**). On the third floor, residents would have access to amenities such as a fitness center, an indoor pool, and a solarium (see **Figure 2.5: Proposed Floor 3 Plan**). Residential units would be located on the 4th through 12th floors of the podium (see **Figure 2.6: Representative Podium Plan, Floors 4-12**). An outdoor terrace on the rooftop



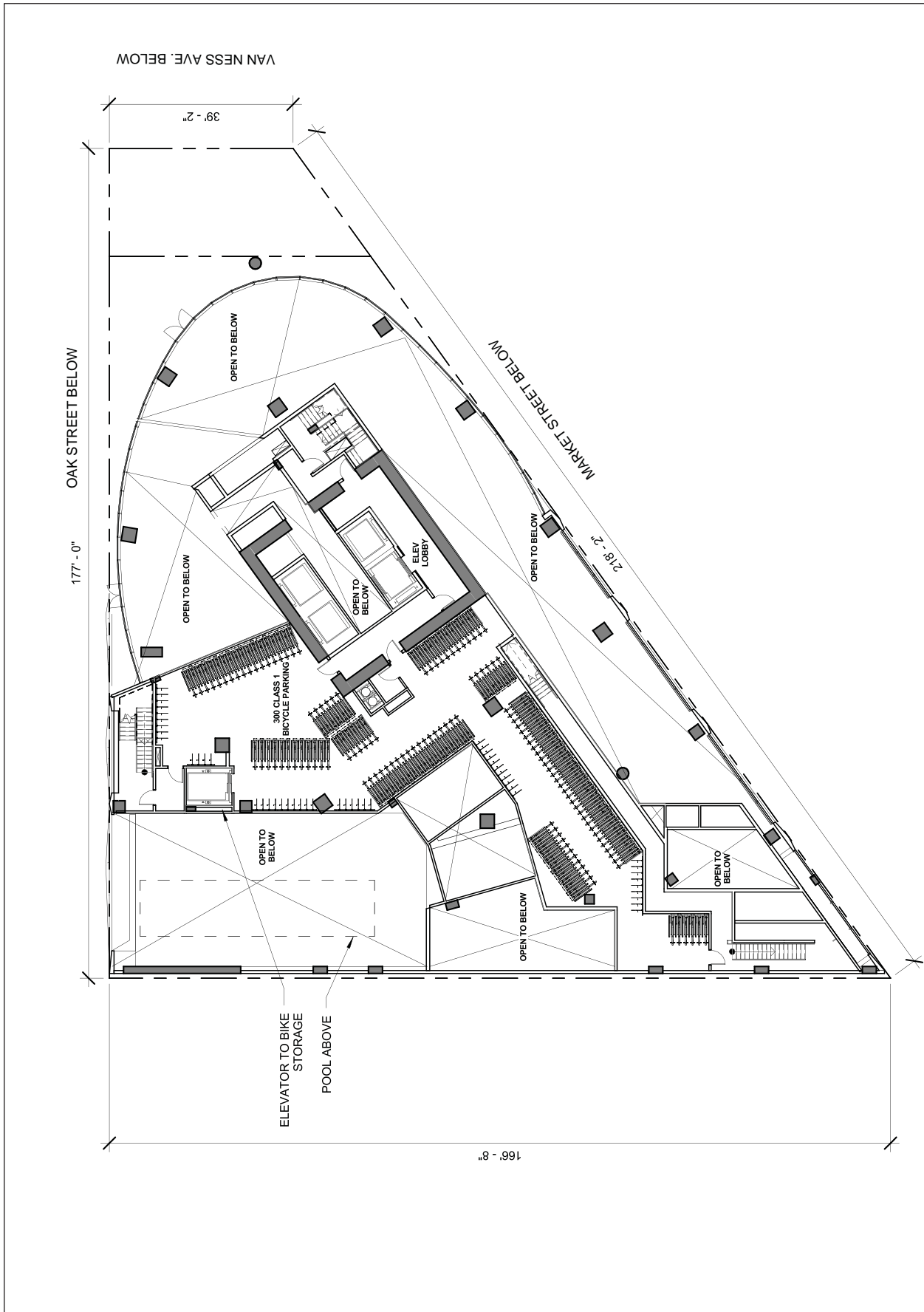
Source: SCB/Snohetta (2016)



ONE OAK PROJECT

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FIGURE 2.3: PROPOSED GROUND FLOOR PLAN

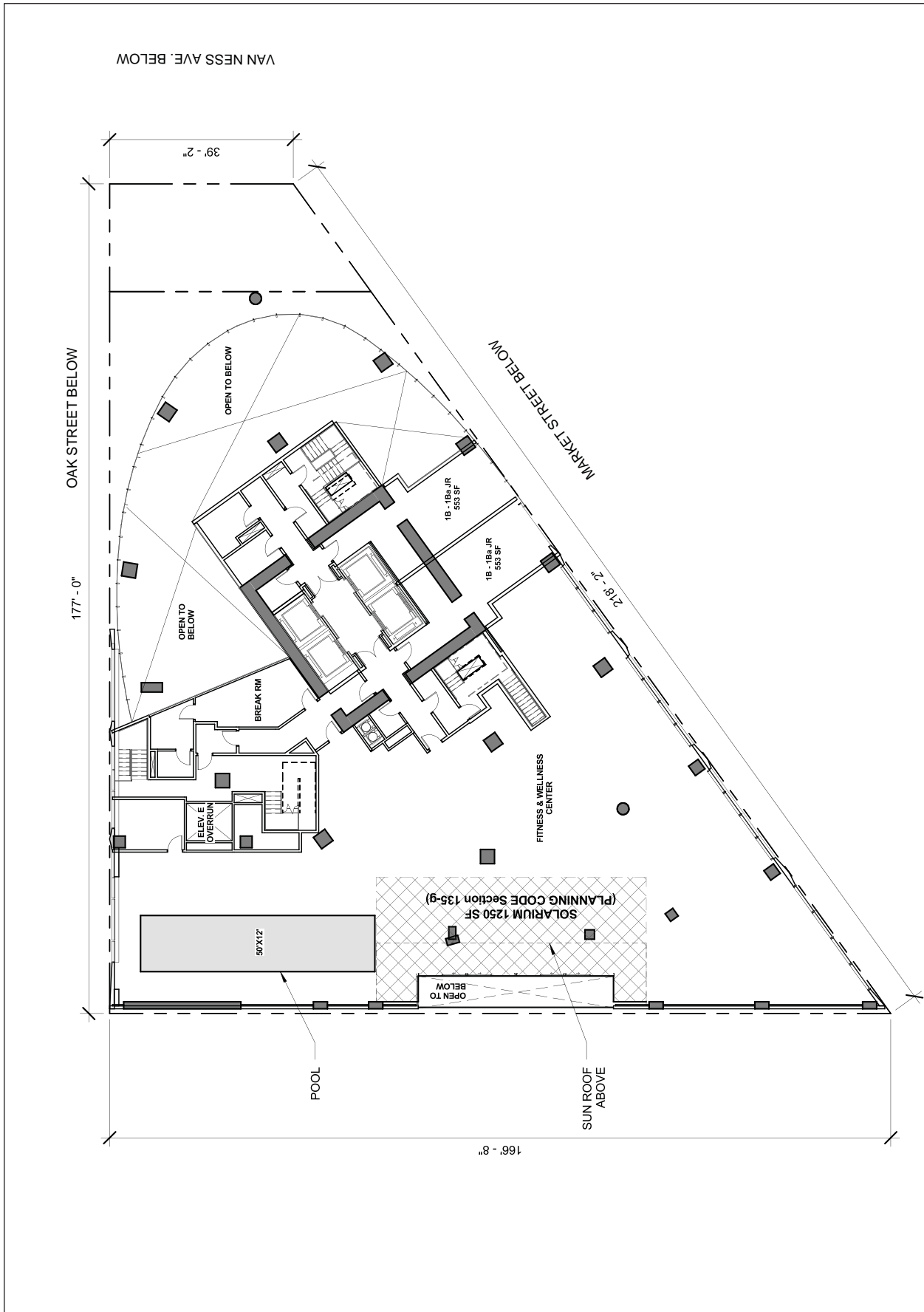


Source: SCB/Snohetta (2016)

ONE OAK PROJECT

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FIGURE 2.4: PROPOSED SECOND-FLOOR PLAN

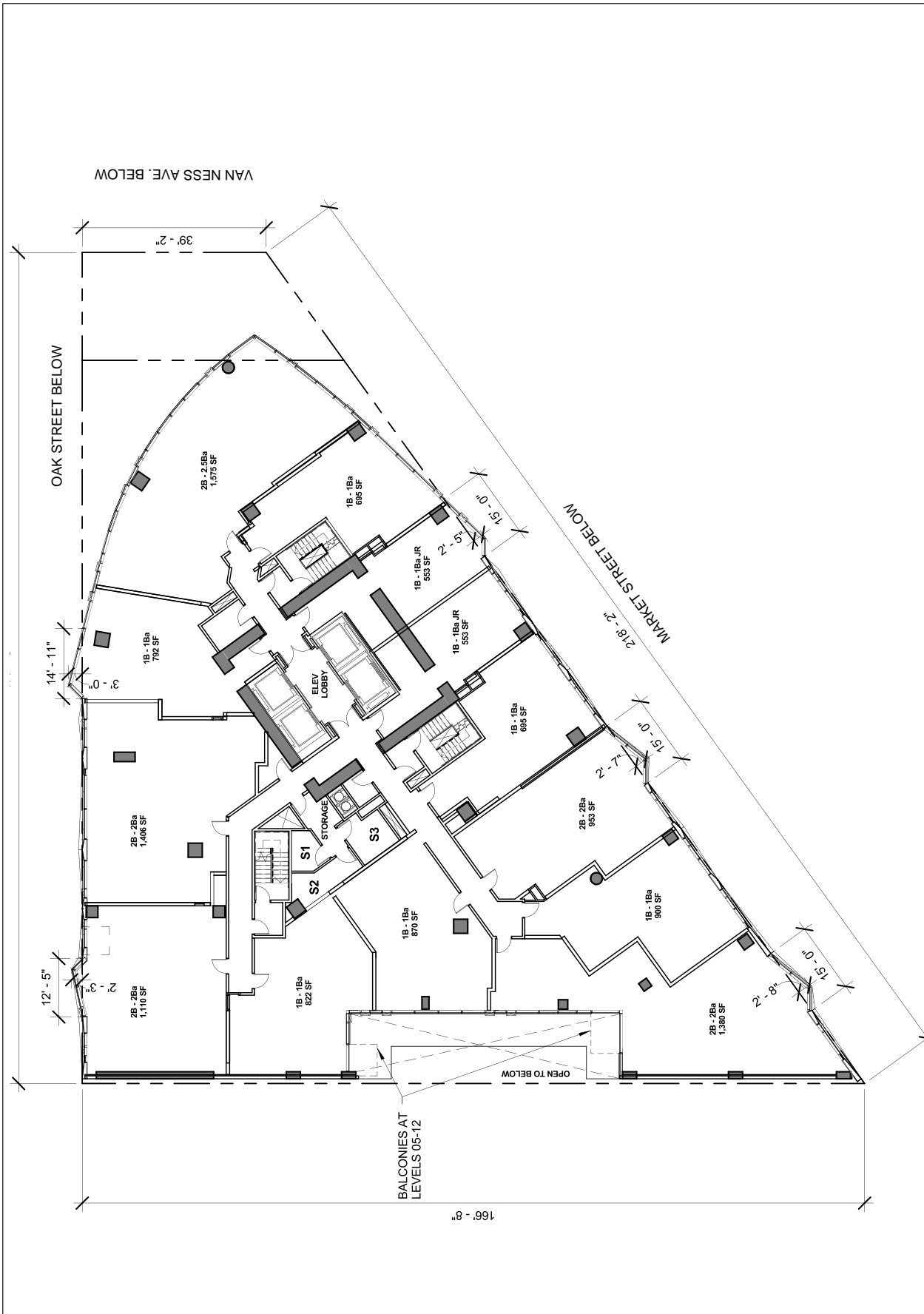


Source: SCB/Sheehy (2016)

ONE OAK PROJECT

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FIGURE 2.5: PROPOSED FLOOR 3 PLAN



Source: SCB/Snohetta (2016)

ONE OAK PROJECT

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FIGURE 2.6: REPRESENTATIVE PODIUM PLAN, FLOORS 4-12

of the 12-story podium would be accessed from the 13th floor of the upper tower (see **Figure 2.7: Floor 13 Plan**). The 13th floor of the upper tower would be devoted to additional resident amenities, including a lounge, a screening room, and a game room. Residential units would be located on the 14th through 40th floors of the upper tower (see **Figure 2.8: Representative Upper Tower Plan, Floors 14-40**).

The proposed project would include common open space for building residents in the form of a 1,250-sq.-ft. solarium on the third floor along the western property line and an approximately 5,310-sq.-ft. open space roof deck located atop the 12-story podium element. The proposed publicly accessible open space area at the ground level of the building site (Lots 1-5) and a portion of the proposed Oak Plaza within the Oak Street right-of-way has been designed to satisfy the requirements for common open space for building residents under Planning Code Sections 135, 138, and 249.33. Approximately 16 units on floors 4-12, 54 units on floors 14-40, and 1 unit on floor 30 would each have access to private open space totaling about 2,556 sq. ft. within private terraces.

To meet its affordable housing requirements, the project sponsor would pay an inclusionary housing in-lieu fee. Pursuant to a letter from the Mayor's Office of Housing and Community Development (MOHCD), MOHCD stated that if certain conditions are fulfilled, including compliance with CEQA and certain future discretionary approvals, for both the One Oak Project and the potential development of 72 affordable BMR units located on former Central Freeway Parcels R, S, & U, within 0.3 mile of the project site (collectively, "the Octavia BMR Project"), MOHCD intends to direct the in-lieu affordable housing fees required for the proposed project to the development of the "Octavia BMR Project" by a non-profit selected by MOHCD.¹

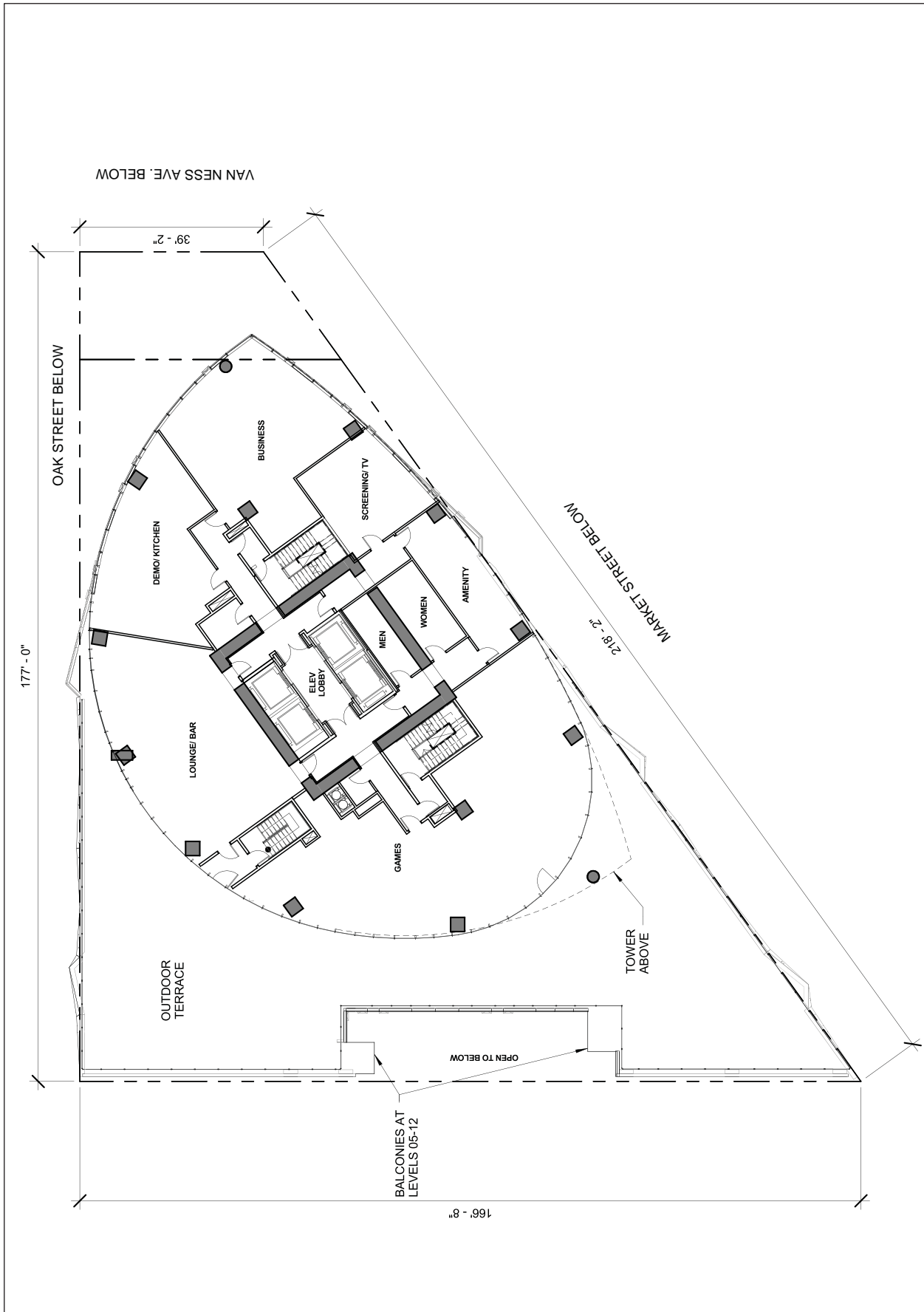
Retail/Restaurant Use

About 4,025 gsf would be allocated to retail/restaurant uses on the ground floor. The proposed retail/restaurant space would be accessed from a bank of doors facing northeast toward Oak Street and Van Ness Avenue, as well as from individual entrances along Market Street. The division of this space would be determined at a later date.

Publicly Accessible Open Space

Areas within the building site (Lots 1-5) but outside the perimeter of the ground floor of the proposed building (about 1,645 square feet) would become publicly accessible outdoor open

¹ The proposed One Oak project is not conditioned upon the approval of the Octavia BMR project. Rather, the One Oak Project would be required, as a condition of its approval, to pay an in-lieu inclusionary housing fee which does not require its use at any particular site. As such, the proposed project does not include the Octavia BMR project as part of the proposed project. The Octavia BMR project is an independent project which would pursue its own environmental review under CEQA and project approvals.

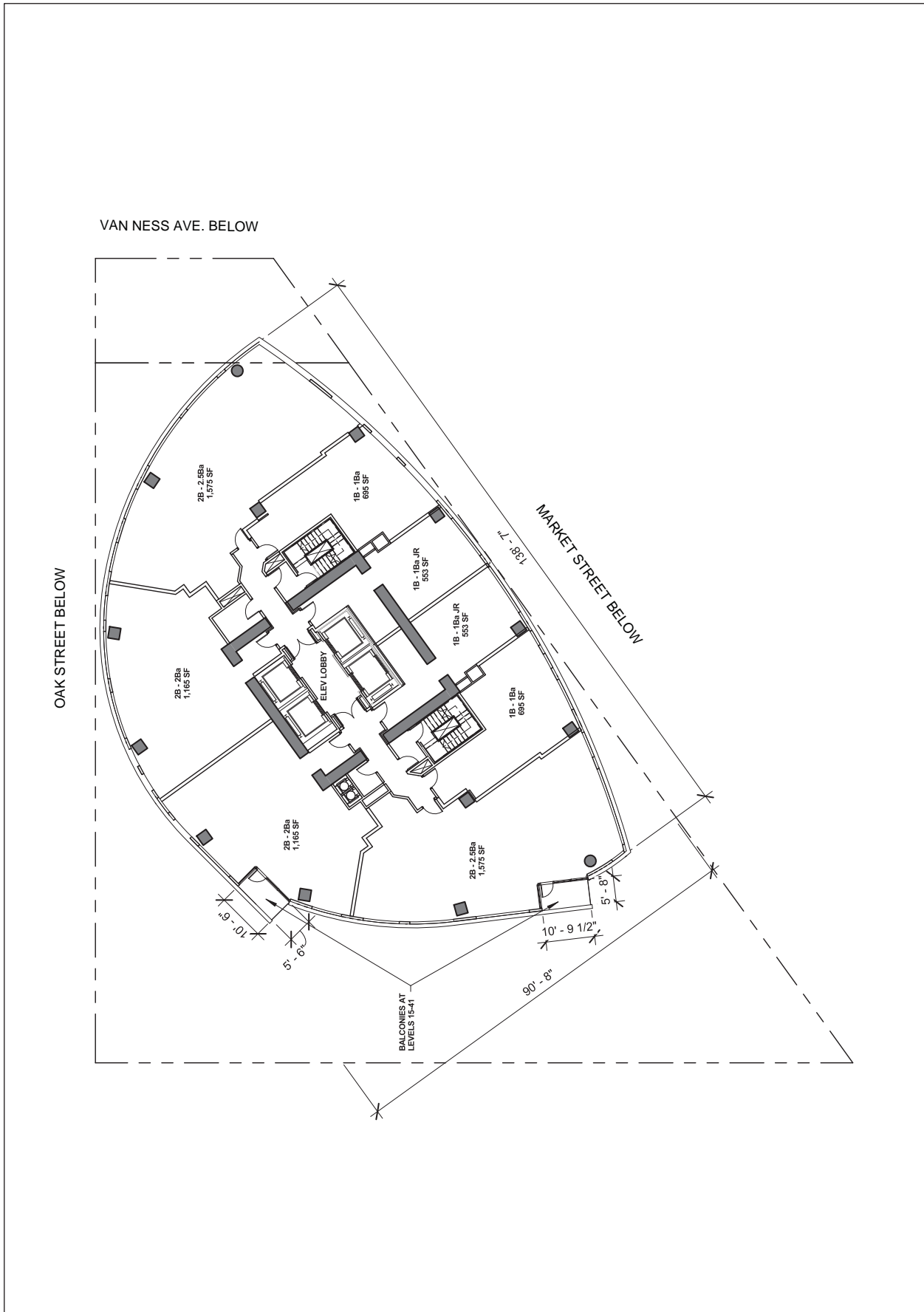


Source: SCB/Sheheta (2016)

ONE OAK PROJECT

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FIGURE 2.7: FLOOR 13 PLAN



Source: SCB/Snohetta (2016)

ONE OAK PROJECT

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FIGURE 2.8: REPRESENTATIVE UPPER TOWER PLAN, FLOORS 14-40

space. Streetscape improvements within the private building site component of the project site are intended to be consistent with the visual identity of, and become a physical and visual extension to, the proposed Oak Plaza (described below, beginning on p. 2.22).

PROPOSED BUILDING FORM AND DESIGN

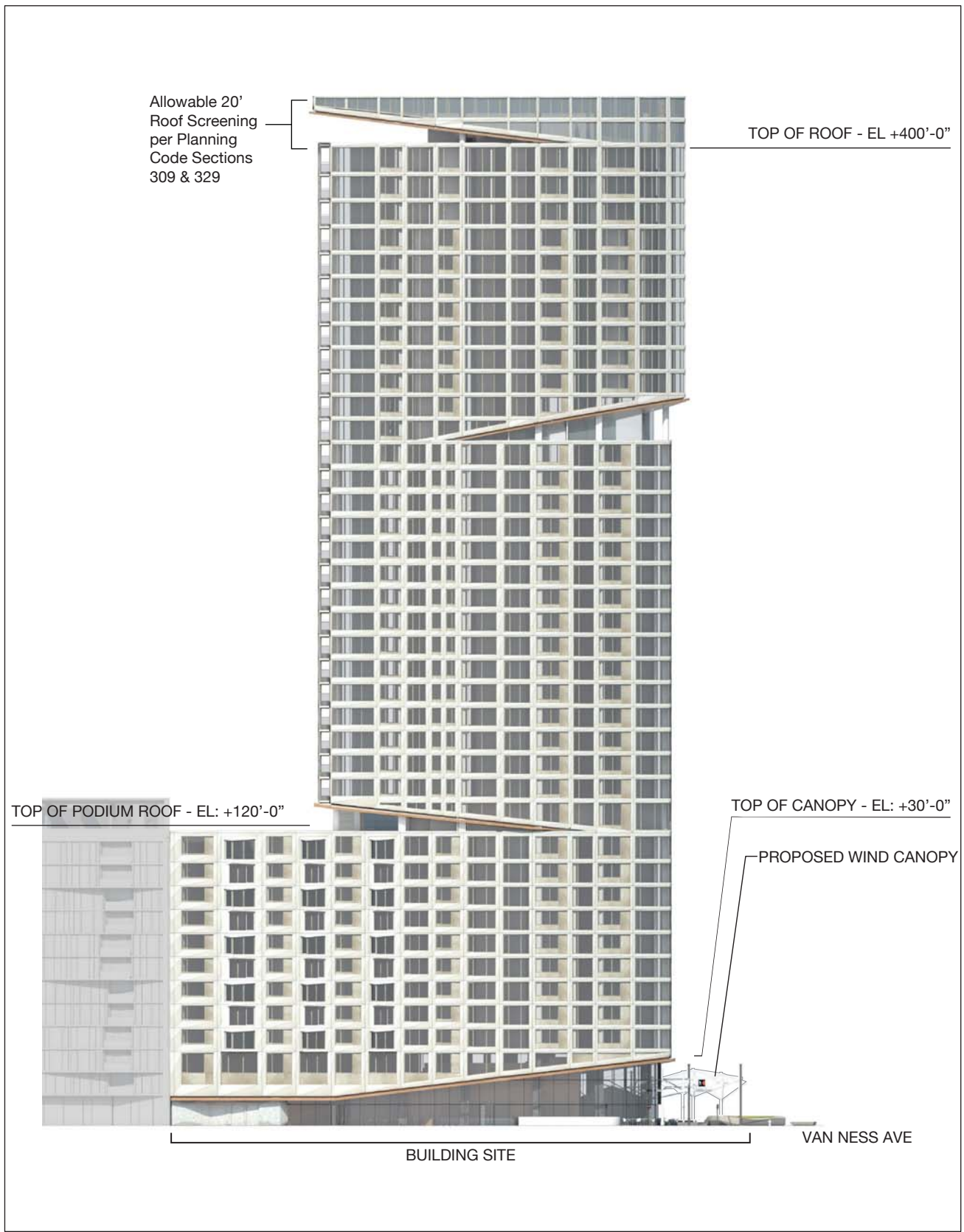
The proposed new building would consist of two volumetric and visual components: a 12-story, 120-foot-tall podium element on the western portion of the building site component of the project site; and a 40-story tower element (400 feet tall plus a 20-foot-tall parapet, for a total height of 420 feet), rising from ground level at the eastern portion of the building site and from a portion of the podium element (see **Figure 2.9: Proposed Market Street Elevation** and **Figure 2.10: Proposed Oak Street Elevation**).

Building floor plates at the lower levels (floors 1-12) would be generally constant in overall size and shape from one floor to the next, although particular interior floor plans would vary between floors. Building floor plates at the upper tower levels above the podium (floors 13-40) would also be generally constant in overall size and shape, except on the 13th floor and floors 29-30. These floors would include architectural horizontal cut features that are intended to provide a visual counterpoint to the verticality of the tower (see **Figure 2.11: Tower Rendering from the South Side of Market Street, Looking West**). The proposed tower would be clad in a grid of horizontal spandrels and vertical mullions and glazing.

The ground level would be recessed from the perimeter of the upper floors at the eastern end of the tower (see **Figure 2.12: Podium Rendering from Southeast Corner of Van Ness Avenue and Market Street, Looking Northwest**). The ground level would be clad in a mullion grid and clear glass which would enclose a triple-height ground-floor commercial space at the eastern end of the building and a double ground-floor space at the western end of the building. Along the Market Street (south) and Oak Street (north) elevations, the 12-story podium element at the western end of the project site would have a variety of bay window projections on Oak Street and Market Street, to visually differentiate the podium element from the tower and to relate this element to the scale of the approved but not yet constructed 12-story, 1546-1564 Market Street project immediately west of the project site.

PROPOSED ONSITE PARKING GARAGE, BICYCLE PARKING, AND LOADING

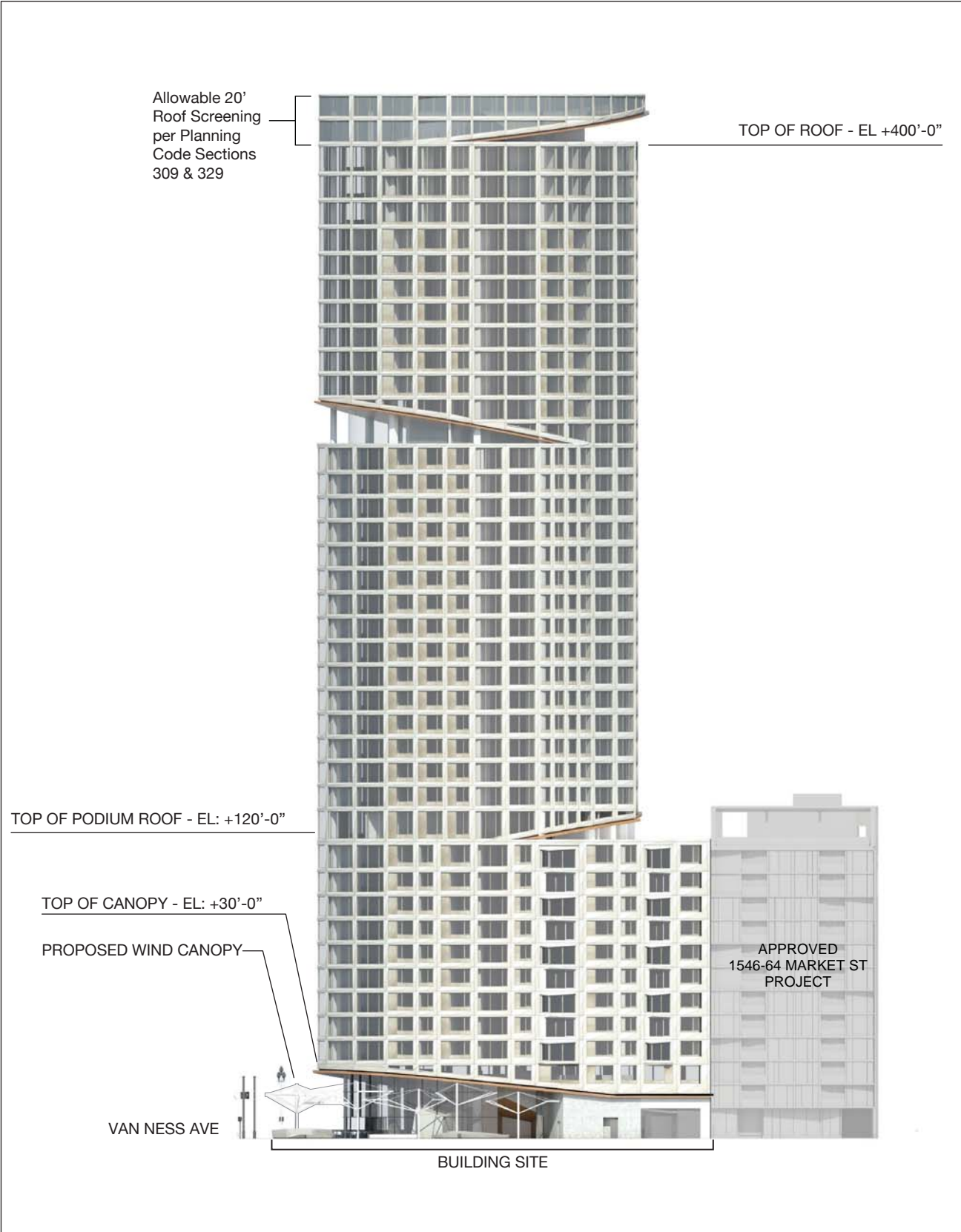
The proposed onsite parking garage and bicycle parking and loading features are described below. Additional offsite parking and loading features of the proposed project are described on p. 2.28.



Source: SCB/Snohetta (2016)

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FIGURE 2.9: PROPOSED MARKET STREET ELEVATION



Source: SCB/Snohetta (2016)



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FIGURE 2.10: PROPOSED OAK STREET ELEVATION



Source: SCB/Snohetta (2016)

ONE OAK PROJECT

FIGURE 2.11: TOWER RENDERING FROM THE SOUTH SIDE OF MARKET STREET, LOOKING WEST



Source: SCB/Sheheta (2016)

ONE OAK PROJECT

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FIGURE 2.12: PODIUM RENDERING FROM THE SOUTHEAST CORNER OF VAN NESS AVENUE LOOKING NORTHWEST

Parking Garage

The entrance to the proposed 60,090-gsf subsurface parking garage would be located at the northwest corner of the project site (see **Figure 2.3** on p. 2.8). Vehicles would access the garage from westbound Oak Street, and vehicles exiting the garage would travel westbound on Oak Street toward Franklin Street. The proposed parking garage would contain 155 accessory parking spaces for building residents in a three-level below-grade garage accessed by two car elevators (see **Figure 2.13: Proposed Basement Garage Plan, Level B1**). Of the 155 vehicle parking spaces, six spaces would be Americans with Disabilities Act (ADA) accessible spaces.

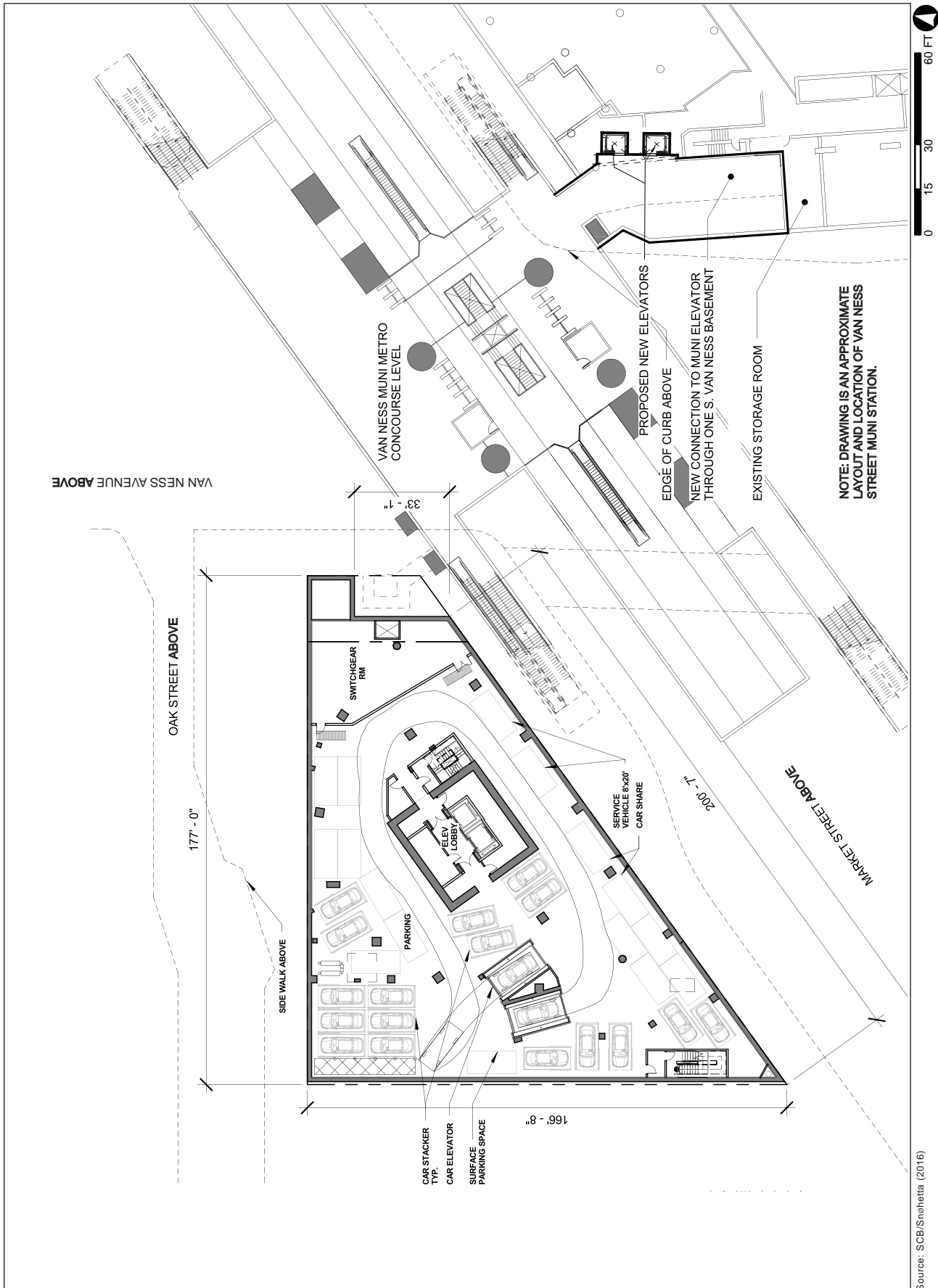
All vehicle parking spaces in the parking garage, including the ADA spaces, would be accessed by valet operators using the car elevator system. Two carshare spaces would be provided for residents and the general public within 800 feet of the building site in the 110 Franklin Street parking lot.

Bicycle Parking

The proposed project would provide 310 Class 1 bicycle parking spaces located on site on the mezzanine level and 60 Class 2 bicycle parking spaces located on sidewalks along Oak and Market streets (see **Figure 2.4** on p. 2.9). The bicycle parking would be accessed primarily through the Oak Street freight/parking entrance to a dedicated bicycle elevator located near the northwest corner of the project site, which would lead to the bicycle storage room located on the second floor. Residents would also have the option of taking their bicycles to the bicycle storage room via the freight/loading entrance on Market Street (southwest corner of the project site), along a service corridor, through a vehicle queuing area in the garage, and into a designated valet room. The bicycle valet operator would then transport the bicycle to the bicycle storage room on the mezzanine via a dedicated bicycle elevator located in the northwest corner of the project site. The sidewalk locations of the Class 2 bicycle spaces would be subject to San Francisco Municipal Transportation Agency (SFMTA) approval.

Loading

The proposed project would include one truck loading space on the ground floor and two service vehicle loading spaces within the first below-grade level of the project garage. The truck loading space would be accessed from Oak Street, and would be 13 feet wide by 45 feet in length, with a 12-foot vertical clearance (see **Figure 2.13** on p. 2.21). These spaces would be used primarily to accommodate vehicles serving the building (e.g., utility repair), rather than for active loading/unloading activities or for those service trips that require frequent access to the service



Source: SCB/Snohetta (2016)

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FIGURE 2.13: PROPOSED BASEMENT GARAGE PLAN, LEVEL B1

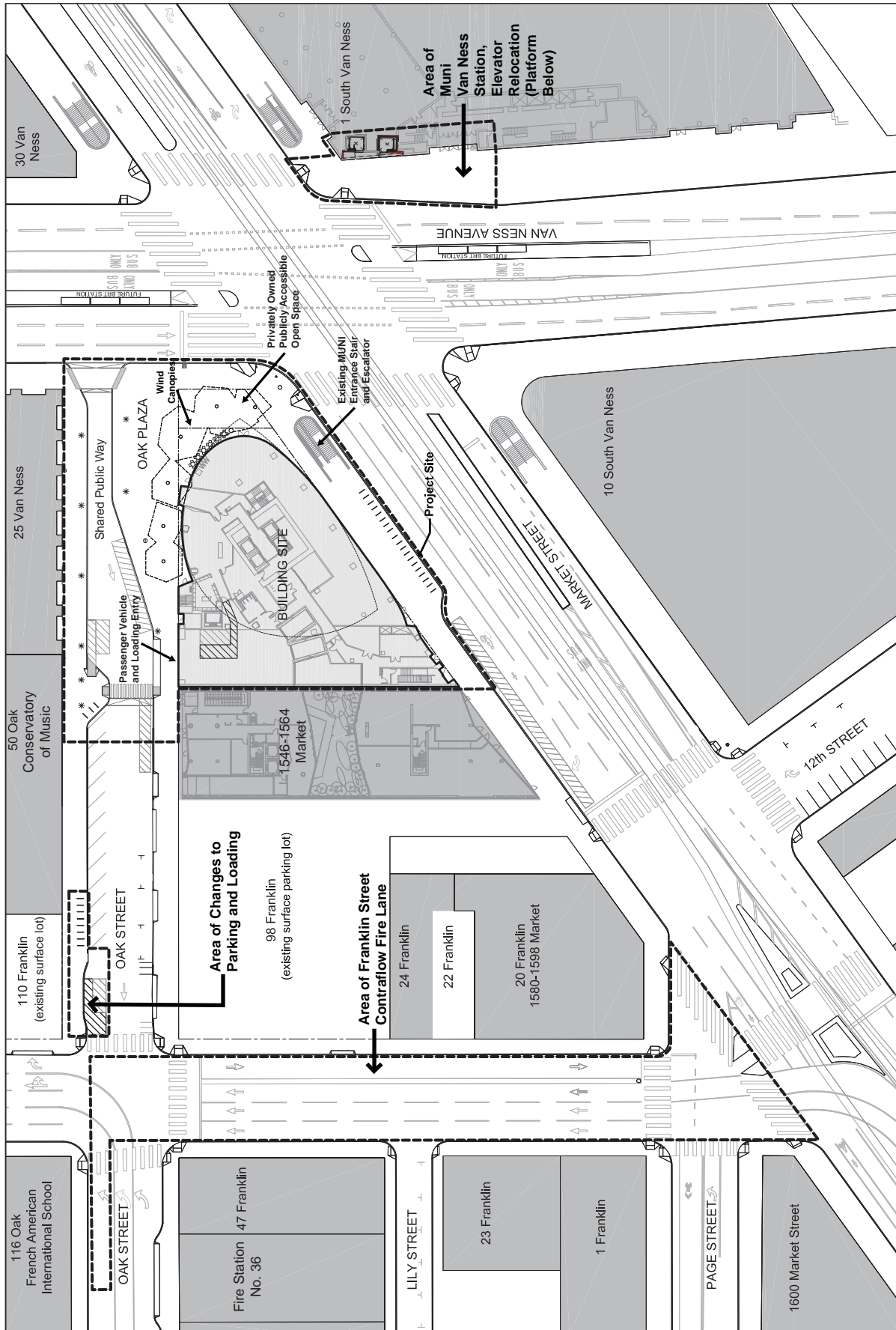
vehicle. The service vehicle loading spaces would be 8 feet wide by 20 feet in length, with a 12-foot vertical clearance. Valet operators would access these two spaces via the car elevator.

Small package deliveries would use either the proposed on-street passenger loading/unloading zone area near the proposed project's residential lobby entrance doors along the south side of Oak Street, or the planned on-street commercial loading zone on the south side of Oak Street directly west of the project site (i.e., the planned commercial loading zone for the adjacent approved 1546-1564 Market Street project). There is an existing 130-foot-long, on-street recessed commercial loading bay on Market Street at the western edge of the project site which, under the proposed project, would also serve the project site. Freight deliveries would reach the upper floors via one of the four elevators accessible from both the truck loading space and the service corridor at the southwestern corner of the building site.

PROPOSED OAK PLAZA

The proposed project would include construction of a public plaza (Oak Plaza) within the Oak Street right-of-way north of the proposed new building (see **Figure 2.14: Proposed Site Plan and Surroundings** and **Figure 2.15: Proposed Plaza Rendering**). Oak Street between Van Ness Avenue and Franklin Street would remain one way westbound. The easternmost end of the Oak Street roadway within the project site would be narrowed from about 20 feet to a 14-foot-wide automobile-pedestrian "shared street" across a public pedestrian plaza extending westward from the Van Ness Avenue curb line by about 202 feet. The shared street across the proposed Oak Plaza would be raised 2 inches above street level, while the pedestrian-only plaza would be raised another 4 inches from the shared street, distinguished by a 4-inch curb. The transition area from the shared street to the Oak Street roadway to the west would contain a 5-foot-wide, 2-inch-tall ramp at the western edge of the right-of-way improvement area and a corresponding 5-foot-wide, 4-inch-tall ramp at the eastern edge of Oak Street before ramping back down 6 inches to Van Ness Avenue. Both the pedestrian plaza and the shared street would be distinguished from the vehicle-only Oak Street roadway to the west of the proposed right-of-way improvement area by a distinctive paving pattern. Each end of the shared street (at Van Ness Avenue to the east, and midblock) would contain a pedestrian crosswalk.

The proposed plaza would include custom precast concrete planters containing small ornamental trees and grass, which would also serve as seating for pedestrians. The precast concrete planters would surround a central plaza area that would allow for flexible uses such as performances by members of neighboring cultural institutions, farmers markets, and other events. The proposed plaza would be managed by a non-profit stewardship entity specifically organized for plaza management and the maintenance and operating expenses would be funded by a Community Facilities District formed specifically for funding maintenance and operating expenses in the area.



Source: SCB/Snehetta (2016)

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FIGURE 2.14: PROPOSED SITE PLAN AND SURROUNDINGS



Source: SCB/Sheheta (2016)

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FIGURE 2.15: PROPOSED PLAZA RENDERING

Along the south side of the proposed Oak Street shared street, the proposed project would provide a passenger loading/unloading zone approximately 60 feet in length to accommodate three vehicles. An ADA passenger loading area would also be provided along the north side of the shared street opposite the proposed garage entrance.

Emergency vehicle access to Oak Street between Franklin Street and Van Ness Avenue would be maintained. The shared street and public plaza would maintain a 14-foot-wide fire lane and 6 feet of additional clearance for emergency vehicle access to and from Van Ness Avenue. The Van Ness Avenue stop line for southbound vehicular traffic would be relocated to align with the southern edge of the future BRT station.

Wind Canopies

The proposed Oak Plaza would include wind screen canopy features that are intended to buffer ground-level wind speeds to enhance pedestrian safety and comfort. These features would also serve as large-scale public art sculptures. The canopies would be freestanding trellis-like structures with cantilevered segments, supported by vertical columns (see **Figure 2.15** on p. 2.24). The canopies would be arranged in a group that would measure approximately 125 feet long from east to west and 40 feet from north to south, and extend up to approximately 20-30 feet above street grade. None of the proposed vertical column supports would be in the 20-foot-wide emergency access zone (i.e., the 14-foot-wide lane, plus 6 feet of additional clearance) or the reconfigured Oak Street roadway between Franklin Street and Van Ness Avenue. However, the canopies may cantilever over portions of these areas. The canopies would be designed to meet San Francisco Fire Code Section 5.01 for emergency access, which requires a minimum vertical clearance of 13 feet, 6 inches. In addition, the canopies would not interfere with fire protection for the building, as the proposed new building would be a “Type I-A” building (i.e., a fire resistive non-combustible high-rise building) and would not require truck aerial (i.e., ladder) operations.

Adjacent Sidewalk Improvements

The proposed project includes pedestrian streetscape improvements to the Van Ness Avenue and Market Street sidewalks within the project site’s right-of-way improvement area, including landscaping and paving improvements. Streetscape improvements along Market Street would be consistent with the existing visual identity established for the rest of Market Street and with the public realm design goals of the Better Market Street Project. The three existing historic Path of Gold light standards would be retained. The Van Ness Avenue sidewalk within the right-of-way improvement area would be repaved with concrete in accordance with City standards.

PROPOSED OFFSITE PROJECT COMPONENTS

The proposed project includes several offsite components, described below (see **Figure 2.14** on p. 2.23).

Muni Van Ness Station Elevator Relocation

As part of the proposed project, the existing Muni Van Ness station elevator at the eastern end of the building site would be demolished, together with the existing 1500 Market Street building in which it is housed. A new replacement elevator plus an additional elevator would be constructed within the building footprint of the existing One South Van Ness Avenue building (located diagonally across Market Street from the project site at the southeast corner of the intersection of Van Ness Avenue/South Van Ness Avenue/Market Street, approximately 170 feet away). Muni riders would take one of the two elevators within the northern portion of the One South Van Ness Avenue lobby, descend to the basement level, and enter a vestibule beneath the sidewalk that would directly connect with the existing adjacent Muni Van Ness station (see **Figure 2.13** on p. 2.21).

The proposed Muni elevator relocation, and the addition of a new elevator, are included in the proposed project because it is an SFMTA priority to provide more than one elevator at each Muni station in order to ensure redundancy in the event that one elevator is inoperable. The existing location of the elevator does not afford enough room for two elevators. Additionally, the proposed location of the new elevators would be within the direct line of sight of a station agent booth, which the existing elevator is not.

As the basement of One South Van Ness Avenue currently extends fully under the South Van Ness Avenue sidewalk, no expansion would be required but the basement would be excavated to a deeper elevation to match the Muni station concourse level. A new walkway floor would be constructed at the matching elevation to the Muni Van Ness station. An opening would then be cut in the perimeter concrete wall of the Muni Van Ness station. The overall construction duration for site revisions, structural work, and elevator construction would be 8 months, which would be completed before demolition of the existing elevator at its current location, unless other temporary accessibility access is provided with approval of SFMTA. In this way, interruption in elevator service to Muni Van Ness station would be avoided or minimized.

Franklin Street Contraflow Fire Lane

As part of the proposed project, a contraflow fire lane would be established on the east side of Franklin Street for fire trucks from San Francisco Fire Department (SFFD) Station 36, located on the south side of Oak Street, about 30 feet west of Franklin Street. Fire trucks would use the

contraflow fire lane to travel southbound between Oak and Page/Market streets. The fire lane would be 14 feet wide and painted red, and would be separated from the three existing northbound travel lanes by a 3-foot-wide plastic system of Quick Kurb travel lane separators.² The three northbound travel lanes would be shifted to the west: the westernmost travel lane would be 12 feet wide, while the remaining two travel lanes would be 11 feet wide.

The following changes would be made to the streets surrounding the project site to implement the fire lane:

- All of the 16 on-street parking spaces on Franklin Street between Oak and Page/Market Streets would be removed (six on the east side and ten on the west side of the street). These on-street parking spaces include one ADA parking space and two metered commercial loading spaces on the east side of Franklin Street.
- Two of the three existing driveways on the east side of Franklin Street would be eliminated. The northernmost driveway, fronting an existing parking lot at 98 Franklin Street owned by the French American International School, would remain. Access to the parking lot would be preserved by the driveway on the south side of Oak Street nearest to Franklin Street as well as by an opening in the Quick Kurb raised travel lane separators. The remaining two driveways, fronting an existing auto garage at 22-24 Franklin Street, would be eliminated as part of a proposed residential project, which is currently under environmental review.
- Northbound vehicles on 12th Street between South Van Ness Avenue and Market Street would be required to turn right onto Market Street eastbound (i.e., northbound vehicles on 12th Street would no longer be able to cross Market Street to access westbound Page Street. Access from 12th Street to westbound Market Street is currently prohibited.) The intersection of 12th/Market Streets would be converted from signal control to a stop sign, and a Right Turn Only sign would be added.
- The stop line for westbound Page Street at Franklin Street would be eliminated. At the red light, vehicles destined for Page Street from westbound Market Street would stop at the existing stop line to the east (aligned with 12th Street), and, as noted above, access from northbound 12th Street onto westbound Page Street would be eliminated.
- The traffic signal at the intersection of Franklin/Market/Page streets would be reconfigured to accommodate the emergency vehicle override, to eliminate the northbound 12th Street movement across Market Street, and to eliminate the stop bar for westbound Page Street at Franklin Street.

With implementation of the fire lane on Franklin Street, fire trucks would no longer travel contraflow (i.e., eastbound) within the westbound travel lane on Oak Street between Franklin Street and Van Ness Avenue, as occurs under existing conditions. The purpose of the contraflow lane would be to provide fire trucks with an emergency vehicle route to the Market/Van Ness Street intersection without having to travel contraflow on Oak Street between Franklin Street and

² More information about this product can be found at www.qwickkurb.com.

Van Ness Avenue as they do in existing conditions. The contraflow lane would alleviate emergency vehicle traffic that would otherwise be traveling through the proposed Oak Plaza, which would make for a more pleasant pedestrian experience in the plaza. Additionally, the fire lane would prevent fire trucks from having to turn southbound from Oak Street to Van Ness Avenue directly in front of the future BRT station, which is anticipated to generate heavier pedestrian traffic compared to existing conditions.

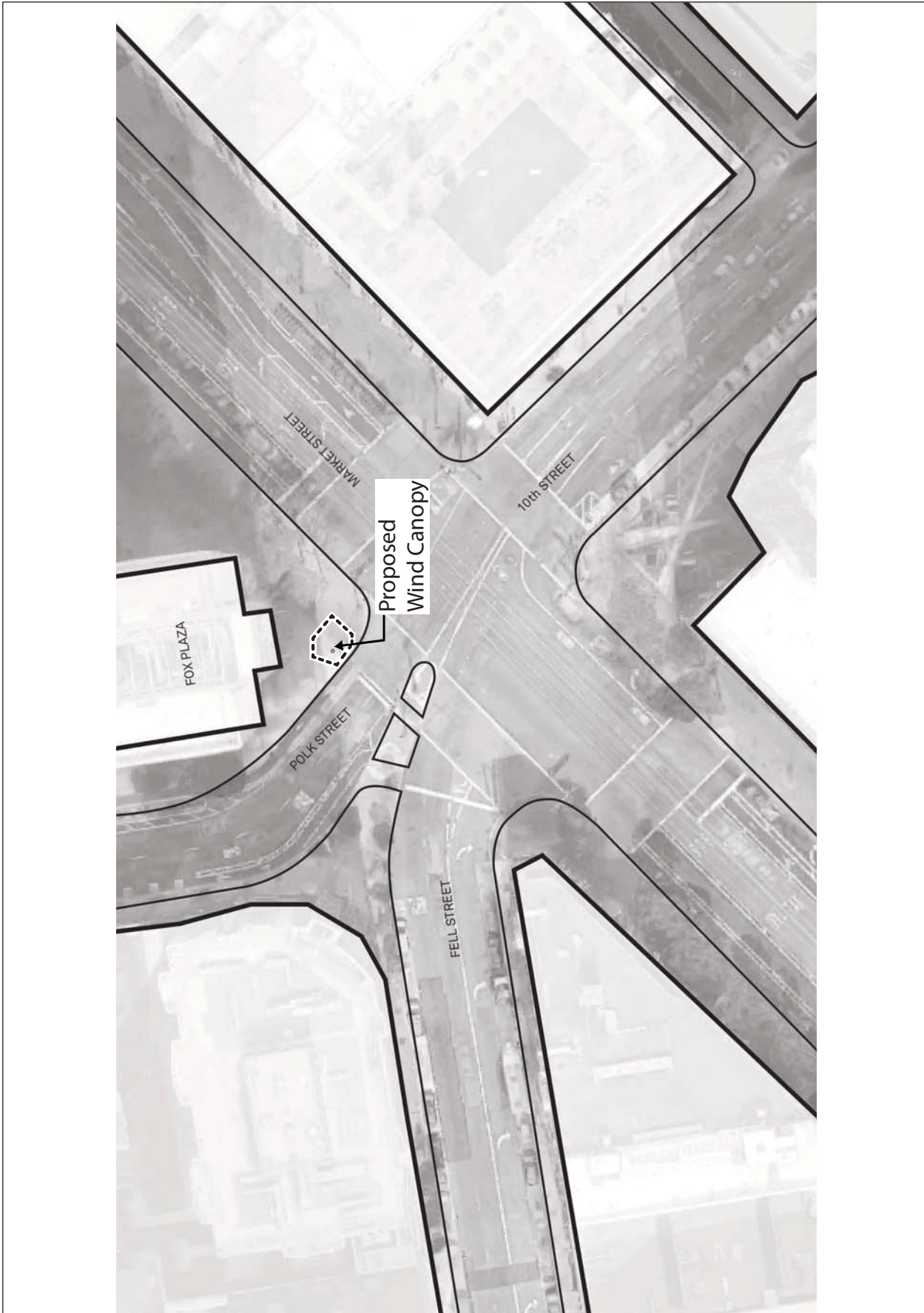
Changes to Parking and Loading along Oak Street

As part of the proposed project, several changes would be made to on-street parking and loading on both sides of Oak Street between Franklin Street and Van Ness Avenue. On the south side of Oak Street, two parallel parking spaces and four commercial loading spaces adjacent to the project site would be eliminated, and a passenger loading/unloading zone approximately 60 feet in length would be provided in the vicinity of the proposed residential lobby entrance. In addition, as part of the 1546-1564 Market Street project adjacent to the project site, the existing curb cut into that site would be relocated, one general parking space would be eliminated, and a commercial loading zone approximately 40 feet in length would be provided between the 1546-1564 Market Street vehicular driveway and the project site. The three general parking spaces and the four existing motorcycle spaces adjacent to the 98 Franklin Street site would remain, as would the two existing curb cuts/driveways into the surface parking lot currently located at 98 Franklin Street.

Along the north side of Oak Street between Franklin Street and Van Ness Avenue, 18 of the 29 existing diagonal on-street parking spaces would be eliminated, including the ADA parking space and the four passenger loading/unloading spaces. In addition, the three existing motorcycle spaces directly east of Franklin Street would be eliminated (see **Figure 2.2** on p. 2.4). With the proposed project, 11 diagonal parking spaces fronting the 50 Oak Street and 110 Franklin Street properties would remain, a parallel ADA parking space would be provided directly east of Franklin Street, and one parallel passenger loading/unloading space would be provided east of the proposed midblock crosswalk (see **Figure 2.14** on p. 2.23).

Market and Polk Street Wind Canopy

The proposed project would include the construction of a wind screen canopy at the northeast corner of the intersection of Market and Polk streets (see **Figure 2.16: Location of the Proposed Wind Canopy at Market and Polk Streets**). Like the wind canopies proposed for Oak Plaza, described above, this feature is intended to protect public areas from strong winds in the area. The canopy would be a freestanding trellis-like structure with cantilevered segments, supported by vertical columns. The canopy would measure approximately 30 feet long east to



Source: SCB/Snohetta (2016)

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FIGURE 2.16: LOCATION OF THE PROPOSED WIND CANOPY AT MARKET AND POLK STREETS

west and approximately 30 feet north-to-south. The vertical clearance of the canopy would be approximately 20 to 30 feet and would be within the sidewalk right-of-way so as not to interfere with vehicular travel on Polk or Market streets.

PROJECT VARIANT

An optional scheme, the Muni Station Elevator and Emergency Access Variant (project variant), is also studied in this EIR. The project variant is substantially the same as the proposed project with respect to building form and dimensions, land use character and residential and commercial program, ground-level plans (i.e., pedestrian access, vehicular access, loading), second floor plans (i.e., bicycle parking), and below-grade level plans (vehicle parking, service vehicle loading), as described above.

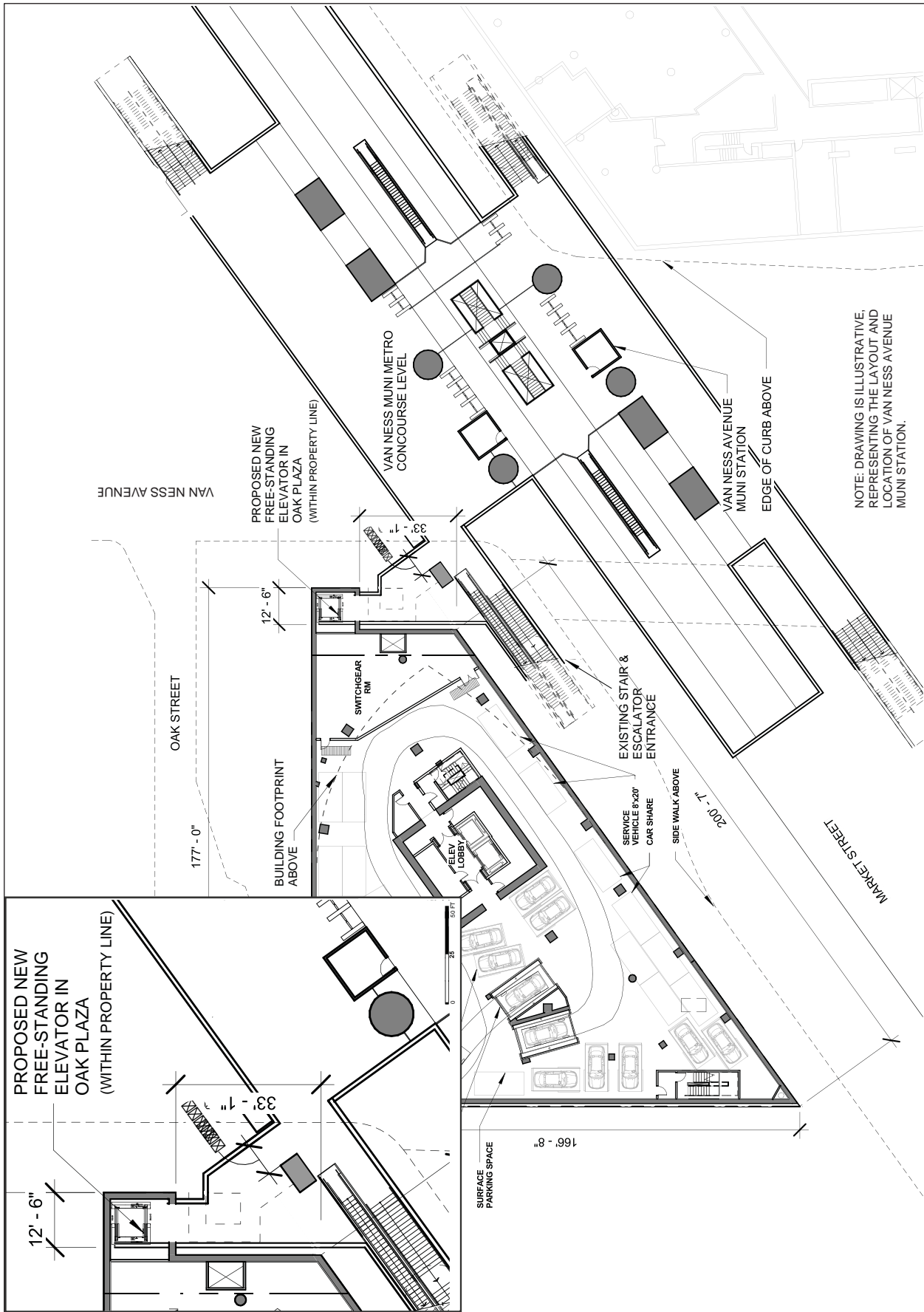
However, two aspects of the project variant differ from the proposed project: relocation of the Muni Van Ness station elevator at Oak Plaza rather than the One South Van Ness building, and no provision of a Franklin Street contraflow fire lane. These variations, described below, are analyzed at a sufficient level of detail in this EIR so that either or both would be available for selection by the decision-makers and/or project sponsor as part of a project approval action. In all other respects the features of the project variant would be substantially the same as those of the proposed project.

Onsite Muni Van Ness Station Elevator

Under the project variant, the existing Muni Van Ness station elevator would not be relocated off site to One South Van Ness Avenue. The single elevator would remain within Lot 1 and would be located in Oak Plaza at or near the existing Muni station elevator (see **Figure 2.17: Project Variant, Basement Plan**). It would be housed in a freestanding structure housing the elevator and its overrun. It would provide access to the station's concourse level, similar to existing conditions.

No Franklin Street Fire Lane

The project variant would not include the proposed Franklin Street fire lane. Instead, SFFD fire trucks would continue to travel eastbound within the westbound travel lane on Oak Street to access Market Street east of Franklin Street, as under existing conditions and the Oak Plaza design, as proposed, would accommodate continued emergency access. The stop line at the Van Ness Avenue /Oak Street intersection would be at the same location as for the proposed project, aligned with the southern edge of the future BRT station ramp. Signage would warn of possible emergency vehicles in the shared public way.



Source: SCB/Snohetta (2016)

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FIGURE 2.17: PROJECT VARIANT, BASEMENT PLAN

PROJECT CONSTRUCTION

Foundation and Excavation

The One Oak Street building is anticipated to employ a full-site mat foundation varying in thickness from about 12 feet at the elevator core to about 8 feet outside of the elevator core. Some over-excavation may be needed in order to stiffen the soil below the mat down to the Colma sand layer (approximately 35-40 feet below the ground surface). As discussed in the NOP/IS, on p. 136, BART has developed guidelines for construction within its Zone of Influence and BART engineers must review project plans.

The existing buildings and parking lot on the project's building site would be demolished as part of the proposed project. Excavation of the entire project site would occur to a depth of up to about 50 feet below ground surface including space for the mat foundation. Approximately 5,000 cubic yards of demolition debris and 35,000 cubic yards of soil would be excavated and exported from the project site.

Construction Phasing and Duration

Project construction would take about 32 months from start of work to finish and would occur in several overlapping phases. Relocation of the Muni Metro station elevator would take up to eight months. Site demolition and clearance would take about two months. Excavation and shoring would take about three months. Foundation work and below-grade construction would take about three months. Base building construction would take about 14 months. Exterior finishing would take about 14 months. Interior finishing would take about 21 months. Pedestrian streetscape improvements would take about two months. Construction of the proposed Franklin Street contraflow fire lane would begin near the end of project construction, concurrent with pedestrian streetscape improvements, and is expected to take about three months.

Construction would be managed to minimize disruption of Muni Metro operations to the extent feasible. The public would have continuous access to the Van Ness Muni station by elevator throughout the construction of the project. Relocation of the Muni Van Ness station elevator would not affect access to the station because the existing elevator would remain in place until construction of the elevators at 1 South Van Ness is complete. If relocating the elevator to One South Van Ness Avenue is not feasible, under the Onsite Muni Van Ness Station Elevator Variant, construction of the onsite Muni elevator would require a period of about four months, which would occur concurrently with base building construction. As the new onsite elevator could be built to the north of the existing elevator without halting operations to the existing elevator, access to the Van Ness station would be halted for a limited amount of time (approximately one month) during which the existing elevator would be demolished, the

underground corridor would be extended through the existing elevator shaft to the new northern location, and the hole where the existing elevator is located would be covered. During this time, Muni riders would be advised that the elevator would not be available (e.g., via Muni Alerts) and would be directed to use the Muni Civic Center station elevator (about 0.45 mile to the east).

E. INTENDED USES OF THE EIR

An EIR is an informational document that is intended to inform the public and the decision-makers of the environmental consequences of a proposed project and to present information about measures and feasible alternatives to avoid or reduce the project's identified significant environmental impacts. This is a project-level EIR that provides the environmental information and evaluation that is necessary for decision-makers to approve the proposed One Oak Street project, prepared by the City and County of San Francisco pursuant to the California Environmental Quality Act (California Public Resources Code Section 21000 et seq. and California Code of Regulations Title 14, Sections 15000 et seq., "CEQA Guidelines"). It analyzes construction and operation of the proposed project at a project-specific level.

Before any discretionary project approvals may be granted for the project, the San Francisco Planning Commission (Planning Commission) must certify the EIR as adequate, accurate, and objective. This Draft EIR will undergo a public comment period (from November 16, 2016 to January 10, 2017) as noted on the cover of this EIR, during which time the Planning Commission will hold a public hearing on the Draft EIR. Following the close of the public comment period, the San Francisco Planning Department (Planning Department) will prepare and publish a Responses to Comments document, containing all substantive environmental comments received on the Draft EIR and the Planning Department's responses to those comments. It may also contain specific changes to the Draft EIR text and/or figures. The Draft EIR, together with the Responses to Comments document, including revisions to the Draft EIR, if any, would be considered for certification by the Planning Commission at a public hearing and certified as a Final EIR if deemed adequate, accurate, and objective.

PROJECT APPROVALS

The project requires approvals, including the following, which may be reviewed in conjunction with the project's requisite environmental review, but may not be granted until such required environmental review is completed.

Recreation and Park Commission

- Joint determination with the Planning Commission that the project would have no adverse shadow impact on Patricia's Green, Page and Laguna Mini Park, Koshland Park, and Hayes Valley Playground, or other parks subject to Section 295 of the Planning Code.

Planning Commission

- Initiation Hearing of the *San Francisco General Plan (General Plan)* amendment to revise Map 3 of the *Market and Octavia Area Plan* to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836 and reclassify Lot 1 on Assessor's Block 0836 to 120-R-2.
- Certification of the Final EIR and adoption of CEQA Findings and adoption of a Mitigation Monitoring and Reporting Program.
- *General Plan* referral to allow construction in the Oak Street right-of-way, and installation of proposed wind canopies within an Oak Street Plaza and the public right-of-way.
- Approval of the project under Planning Code Section 309, including possible exceptions with regard to ground-level winds, rear yard requirements, maximum lot coverage, rooftop mechanical screening, and service vehicle parking not being independently accessible.
- Approval of an In-Kind Improvements Agreement under Planning Code Section 424.3(c) for community improvements for the neighborhood infrastructure portion of the Van Ness and Market Downtown Residential Special Use District Neighborhood Infrastructure Fee.
- Recommendation of an ordinance amending the Zoning Map to shift the Height and Bulk District 120/400-R-2 designation from Lot 001 to Lot 005 on Assessor's Block 0836 and reclassifying Lot 001 on Assessor's Block 0836 to 120-R-2.
- Recommendation of a *General Plan* amendment to revise Map 3 of the *Market and Octavia Area Plan* to shift the Height and Bulk District 120/400-R-2 designation from Lot 001 to Lot 005 on Assessor's Block 0836 and reclassify Lot 001 on Assessor's Block 0836 to 120-R-2.
- Joint determination with the Recreation and Park Commission under Planning Code Section 295 that net new project shadow being cast on Patricia's Green, or other parks subject to Section 295, would not adversely affect the use of the park.

Zoning Administrator

- Approval of Planning Code variances under Planning Code Section 305 related to dwelling unit exposure and garage entrance width.

Board of Supervisors

- Approval of an ordinance amending the Zoning Map to shift the Height and Bulk District 120/400-R-2 designation from Lot 001 to Lot 005 on Assessor's Block 0836 and reclassify Lot 001 on Assessor's Block 0836 to 120-R-2.

- Approval of a *General Plan* amendment to revise Map 3 of the *Market and Octavia Area Plan* to shift the Height and Bulk District 120/400-R-2 designation from Lot 001 to Lot 005 on Assessor's Block 0836 and reclassify Lot 001 on Assessor's Block 0836 to 120-R-2.
- Adoption of the proposed Oak Plaza into the City's Plaza Program, pursuant to SF Administrative Code Section 94.3.
- Approval of a Street Plaza Encroachment Permit Application for the proposed Oak Plaza.

Department of Building Inspection (DBI)

- Issuance of demolition, site, and associated building permits (site permit addenda).

Department of Public Works (DPW)

- Approval of changes in public rights-of-way and of conversion of a portion of Oak Street into a publicly owned pedestrian plaza. This approval may proceed under the City's newly adopted Plaza Program, San Francisco Administrative Code Sections 94.1-94.7.
- Approval of a Major Encroachment Permit.
- Approval of a Street Plaza Encroachment Permit.
- Permit for removal and planting of street trees.
- Approval of subdivision map and condominium map applications.
- Approval of a lot line adjustment.
- Approval of a Street Space Permit from the Bureau of Street Use and Mapping for use of a public street space during project construction (including construction of the proposed wind canopies and Oak Plaza improvements).
- Approval of a Memorandum of Understanding (MOU) regarding the maintenance and availability of curbside loading zones on Oak Street and Market Street.
- Street Encroachment Permit, to be approved by the Director of Public Works, and by the Board of Supervisors if required by the Director, for a wind canopy to be located at the corner of Market and Polk streets.
- Approval of repaving and changes to curb lines for Franklin Street contraflow lane.

Municipal Transportation Agency (SFMTA)

- Approval of the Oak Plaza conversion.
- Approval of a Special Traffic Permit from the Department of Parking and Traffic for use of a public street space during project construction.
- Approval of foundation, shoring, and dewatering systems as they relate to the Muni Zone-of-Influence.
- Approval by the City and County of San Francisco and granting of an easement to SFMTA within One South Van Ness to permit the installation and maintenance of the relocated elevator.

- Approval of the replacement and relocation of the existing Muni Metro elevator by SFMTA to (1) a new location at or north of the existing location adjacent to the plaza or (2) a new location within the footprint of the One South Van Ness building.
- Approval of ADA and Title 24 access solution during temporary closure of station elevator, if necessary.
- SFMTA Officer Approval in a public hearing of Lane Striping, Traffic and Signage changes, modifications to roadway and signalization for the Franklin Street contraflow lane.
- SFMTA Board Approval of Lane Striping, Traffic and Signage changes, modifications to roadway, and signalization for the Franklin Street contraflow lane.

Bay Area Rapid Transit (BART)

- Approval of foundation, shoring, and dewatering systems as they relate to the BART Zone-of-Influence.
- Approval of the replacement and relocation of the existing Muni Metro elevator to (1) a new location at or north of the existing location adjacent to the plaza or (2) a new location within the footprint of the One South Van Ness building.
- Approval of ADA and Title 24 access solution during temporary closure of station elevator, if necessary.
- Agreement to terminate the existing Muni access elevator easement and record the termination against title.

San Francisco Art Commission

- Approval of the proposed Oak Plaza design by the Civic Design Review Committee and approval of the wind canopies design at the project site and at the corner of Market and Polk streets by the Visual Arts Committee.
- Approval of the 1 percent for Art Fee for art canopies or other art pieces within the Plaza under Planning Code Section 249.

Transportation Advisory Committee (TASC)

- Recommendation of Lane Striping, Traffic and Signage changes, modifications to roadway configuration and signalization for the Franklin Street contraflow lane.

3. PLANS AND POLICIES

CEQA Guidelines Section 15125(d) requires that an EIR discuss “any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans.” This chapter provides a summary of relevant plans and policies that are applicable to the proposed project with a particular focus on the project’s potential inconsistencies with those plans and policies that could result in environmental impacts.

A conflict between a proposed project and a *General Plan* policy does not, in itself, indicate a significant effect on the environment within the context of CEQA. Policy conflicts do not, in and of themselves, indicate a significant environmental effect within the meaning of CEQA. To the extent that adverse physical environmental impacts may result from such conflicts, such impacts are analyzed in this EIR in the specific topical sections in **Chapter 4, Environmental Setting and Impacts**, and in Section E, Evaluation of Environmental Effects, of the Notice of Preparation/Initial Study (NOP/IS) that was published on June 17, 2015 (**Appendix A** of this EIR). In general, potential conflicts with the *General Plan* are considered by the decision-makers (normally the Planning Commission) independently of the environmental review process, as part of the decision to approve or disapprove a proposed project. The staff reports and approval motions prepared for the decision-makers would include a comprehensive project analysis and findings regarding the consistency of the proposed project with applicable plans, policies, and regulations independent of the environmental review process. Any potential conflict not identified in this environmental document would be considered in that context and would not alter the physical environmental effects of the proposed project that are analyzed in this EIR.

A. REGIONAL PLANS AND POLICIES

There are several regional planning agencies whose environmental, land use, and transportation plans and policies consider the growth and development of the nine-county San Francisco Bay Area. Some of these plans and policies are advisory, and some include specific goals and provisions that must be adhered to. The regional plans and policies that are relevant to the proposed project are discussed below. The proposed project has been reviewed against these regional plans and policies and would not obviously or substantially conflict with these plans or policies.

- *Plan Bay Area*, prepared by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), is a long-range land use and transportation plan for the nine-county Bay Area that covers the period from 2010 to 2040. *Plan Bay Area* calls for concentrating housing and job growth around transit corridors, particularly within areas identified by local jurisdictions as Priority Development Areas. In addition, *Plan Bay Area* specifies strategies and investments for

maintaining, managing, and improving the region's multi-modal transportation network and proposes transportation projects and programs to be implemented with reasonably anticipated revenue. *Plan Bay Area* was adopted on July 18, 2013.

- ABAG's *Projections 2013* is an advisory policy document that uses population and employment forecasts to assist in the development of local and regional plans and policy documents.
- The MTC's *Transportation 2035 Plan for the San Francisco Bay Area* is a policy document that outlines transportation projects for highway, transit, rail, and related uses through 2035 for the nine Bay Area counties.
- The Bay Area Air Quality Management District's *Bay Area 2010 Clean Air Plan* updates the Bay Area 2005 Ozone Strategy, in accordance with the requirements of the California Clean Air Act, to implement feasible measures to reduce ozone and provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases throughout the region.
- The Regional Water Quality Control Board's *Water Quality Control Plan for the San Francisco Bay Basin* is a master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the state, including surface waters and groundwater, and includes implementation programs to achieve water quality objectives.

The proposed project is generally consistent with these plans. Implementation of high-density residential development at the site would result in a land use pattern that concentrates population in an area well-served by transit and infrastructure, in close proximity to jobs and services, in an efficient manner that could reduce reliance on personal automobile trips.

B. SAN FRANCISCO GENERAL PLAN

The *San Francisco General Plan (General Plan)* is the embodiment of the City's vision for the future of San Francisco. It is comprised of a series of ten elements, each of which deals with a particular topic that applies citywide: Air Quality, Arts, Commerce and Industry, Community Facilities, Community Safety, Environmental Protection, Housing, Recreation and Open Space, Transportation, and Urban Design. In addition to its Elements, the *General Plan* also includes Area Plans, like the *Market and Octavia Neighborhood Plan*, which includes the project site (see the discussion below).

The proposed project is intended to implement the objectives and policies of the *General Plan*. However, the proposed project (which includes construction of a new high-rise tower, construction of a new public open space within the Oak Street right-of-way, and installation of wind canopy structures within public rights-of-way to reduce winds for pedestrians to acceptable levels) may be inconsistent with *General Plan* objectives and policies that relate to the character of open space and streets, including the following:

- *Urban Design Element, Fundamental Principles for Conservation #13*: Street space provides light, air, space for utilities and access to property.
- *Urban Design Element, Fundamental Principles for Major New Development #15*: Plazas or parks located in the shadows cast by large buildings are unpleasant for the user.
- *Urban Design Element, Objective 3, Policy 4*: Promote building forms that will respect and improve the integrity of open spaces and other public areas. “Buildings to the south, east and west of parks and plazas should be limited in height or effectively oriented so as not to prevent the penetration of sunlight to such parks and plazas.”
- *Recreation and Open Space Element, Objective 1, Policy 9*: Preserve sunlight in public open spaces.

As discussed above, a conflict between a proposed project and a *General Plan* policy does not, in itself, indicate a significant effect on the environment within the context of CEQA. Physical environmental impacts that could result from such conflicts, such as those related to land use, wind, and shadow, are analyzed in this EIR.

The Market and Octavia Neighborhood Plan

The *Market and Octavia Neighborhood Plan* (the MO Plan) is an Area Plan within the *General Plan*. The MO Plan’s primary objectives are to enhance the neighborhood as a mixed-use urban neighborhood, strengthen its physical fabric and character, provide for development of infill construction throughout the plan area, preserve existing housing stock, and promote the preservation of historic buildings.

The *Market and Octavia Neighborhood Plan EIR* analyzed the following environmental issues associated with adoption of zoning and policies developed to address the plan’s broad objectives: plans and policies; land use and zoning; population, housing, and employment; urban design and visual quality; shadow and wind; cultural (historical and archeological) resources; transportation; air quality; noise; hazardous materials; geology, soils, and seismicity; public facilities, services, and utilities; hydrology; biology; and growth inducement.

The proposed project is intended to implement the vision of the MO Plan, consistent with the Van Ness and Market Downtown Residential Special Use District (Planning Code Section 249.33) with the goal of encouraging:

a transit-oriented, high-density, mixed-use neighborhood with a significant residential presence... [that] transition[s] from largely a back-office and warehouse support function to downtown into a more cohesive downtown residential district, and serves as a transition zone to the lower scale residential and neighborhood commercial areas to the west of the C-3. A notable amount of large citywide commercial and office activity will remain in the area, including government offices supporting the Civic Center and City Hall. This area was initially identified in the Downtown Plan of the General Plan as an area to

encourage housing adjacent to the downtown. As part of the city's Better Neighborhoods Program, this concept was fully articulated in the Market and Octavia Area Plan, and is described therein.

The proposed project is also intended to implement the policies of the MO Plan by concentrating more intense uses and activities in those areas best served by transit and most accessible on foot (Policy 1.1.2); maximizing housing opportunities and encouraging high quality commercial spaces on the ground floor (Policy 1.2.2); enhancing the intersection of Van Ness Avenue and Market Street as a visual landmark (Policy 1.2.5); constructing "slender residential towers" above base heights along both Market Street and Van Ness Avenue (Policy 1.2.8); ensuring a mix of unit sizes is built in new development (Policy 2.2.2); encouraging new housing above ground-floor commercial uses in new development (Policy 2.2.4); and marking the intersections of Market Street with Van Ness Avenue with streetscape elements that celebrate their particular significance (Policy 4.3.3).

Although the proposed project is intended to implement the MO Plan's vision for height and bulk at this intersection, as discussed on p. 3.5, under "Height and Bulk Controls," the westernmost 4 feet, 7.5 inches of the proposed 400-foot-tall tower is within the existing 120-R-2 Height and Bulk District at the western portion of the project site. Implementation of the proposed project would require an amendment to the *General Plan* and amendments to the Planning Code to reclassify the existing 400 foot height limit on the easternmost lot (Lot 1) to 120 feet and reclassify the existing 120 foot height limit on the western half of the westernmost lot (Lot 5) to 400 feet in order to allow for the shifting of the proposed tower's position within the building site slightly west of where it would otherwise be allowed under existing height and bulk limits.

The MO Plan's Fundamental Design Principle for Towers #3 calls for the provision of pedestrian comfort from wind. In particular, the MO Plan identifies significant winds in the Van Ness Avenue and Market Street corridor and notes that tower structures can channel winds down to the street level, resulting in unpleasant and potentially dangerous conditions for pedestrians. Redirected wind flows from new towers should not exceed seven miles per hour on Market Street and 11 miles per hour on all other streets. This Fundamental Design Principle calls for the integration of horizontal articulation, screens and/or other wind mitigation measures into the overall massing, design, and articulation of tower structures. The proposed project could result in winds that exceed seven miles per hour along Market Street. The impact of the proposed project on pedestrian comfort levels and ground-level wind hazards is evaluated under significance thresholds for wind under CEQA in **Section 4.C, Wind**.

C. SAN FRANCISCO PLANNING CODE

The San Francisco Planning Code (Planning Code), which incorporates by reference the City's Zoning Maps, governs permitted uses, densities, and the configuration of buildings within San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless the proposed project complies with the Planning Code, an exception or variance is granted pursuant to the provisions of the Planning Code, or legislative amendments to the Planning Code are included and adopted as part of the proposed project.

LAND USE CONTROLS

The building site component of the project site is in the C-3-G (Downtown Commercial, General) District. Pursuant to Planning Code Section 210.2, the C-3-G District "is composed of a variety of uses: retail, offices, hotels, entertainment, clubs and institutions, and high-density residential. Many of these uses have a citywide or regional function, although the intensity of development is lower here than in the downtown core area. As in the case of other downtown districts, no off-street parking is required for individual commercial buildings. In the vicinity of Market Street, the configuration of this district reflects easy accessibility by rapid transit." The proposed project's use program is not anticipated to conflict with the provisions of the C-3-G District.

Height and Bulk Controls

As shown on Zoning Map Sheet HT07, most of the building site component of the project site (Block 0836, Lots 1 through 4 plus the eastern half of Lot 5) is in a 120/400-R-2 Height and Bulk District, and the remainder of the building site (the western half of Block 0836, Lot 5) is in a 120-R-2 Height and Bulk District. The 120- and 400-foot height limits permit maximum building heights of 120 and 400 feet, respectively. The proposed project tower would comply with the height limit for most of the building site, but would require the adoption of legislative amendments to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to the western half of Lot 5 on Assessor's Block 0836. The requested reclassification would down-zone 668 square feet of land area within the easternmost Lot 1 from 120/400 R-2 to 120-R-2, and an equivalent up-zoning of 668 square feet of land area from 120-R-2 to 120/400-R-2 on Lot 5, extending approximately 4 feet, 7 inches west into the current boundary of the 120/400-R-2 zone (at the midpoint of Lot 5).

The purpose of the height reclassification is to provide a tower design that is optimized for reducing pedestrian-level winds within the project site and vicinity. The slight westward shift of the tower element is intended to reduce the horizontal dimension of the podium and thereby reduce the "wind funneling effect" that would result from a wider podium. Additionally, shifting

the tower to the west would allow for approximately 1,700 additional square feet of plaza area within the eastern portion of the building site. Shifting the tower westward would also allow for a widening of the Van Ness Avenue and Market

Street sidewalks to help accommodate future increased pedestrian flow that would result from the build-out of the residential towers planned on the corner of Market Street and Van Ness Avenue as part of the MO Plan.

The conflict with existing plans and policies resulting from the placement of the proposed 400-foot-tall tower partially within the portion of the building site now designated with a 120-foot height limit would not conflict, on balance, with plans and land use regulations adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project would substantially conform to the general land use pattern for height and bulk envisioned for the immediate area under the MO Plan. The Plan calls for a concentration of density in areas, such as the project site, best served by transit and accessible by foot. The MO Plan also envisions the intersection of Market Street and Van Ness Avenue marked by prominent visual landmarks in the form of tall slender towers. The proposed project is also consistent with the Van Ness and Market Downtown Residential Special Use District which, under Planning Code Section 249.33, envisions a transit-oriented, high-density, mixed-use neighborhood with a significant residential presence for the area. As such, the proposed project would not, on balance, substantially conflict with applicable plans and policies.

Bulk controls reduce the size of a building's floorplates as the building increases in height. Pursuant to Planning Code Section 270(f), the bulk controls in an "R-2" Bulk District are as follows:

- There are no bulk controls below a building height of 120 feet.
- Beginning at a building height of 120 feet, a building with an overall height between 351 and 550 feet cannot exceed a maximum plan length of 115 feet, a maximum diagonal dimension of 145 feet, and a maximum average floor area of 10,000 gsf.

The proposed project would not exceed existing bulk controls.

Floor Area Ratio

The building site component of the project site is subject to a base 6:1 Floor Area Ratio (FAR)¹ limit and a maximum 9:1 FAR limit under Planning Code Section 124 and Section 249.33(b)(6)(A). With a gross floor area of 433,512 sq. ft., and a lot area of

¹ Floor Area Ratio is the ratio of a building's total gross floor area, as defined in Planning Code Section 102.9 (which identifies certain types of spaces within a building that are not included in a building's gross floor area) to the area of the lot or lots that the building occupies.

18,735 sq. ft., the FAR for the proposed project is 23:1. As such, the proposed project would exceed this limit. Planning Code Section 249.33, applicable to the Van Ness Downtown Residential Special Use District, states that the base and maximum FAR may be exceeded through compliance with Planning Code Section 424, the Van Ness and Market Inclusionary Affordable Housing Fee, and Van Ness and Market Neighborhood Infrastructure Fee, through payment of fees and/or direct provision of affordable housing or public improvements. The proposed project would be required to comply with Planning Code Section 424 through payment of fees or direct provision of public open space and infrastructure improvements, or some combination thereof.

THE ACCOUNTABLE PLANNING INITIATIVE

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the Planning Code and established eight Priority Policies. These policies are (1) preservation and enhancement of neighborhood-serving retail uses and future opportunities for resident employment in and ownership of such businesses; (2) conservation and protection of existing housing and neighborhood character to preserve the cultural and economic diversity of neighborhoods; (3) preservation and enhancement of affordable housing; (4) discouragement of commuter automobiles that impede Muni transit service or that overburden streets or neighborhood parking; (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; (6) maximization of earthquake preparedness; (7) preservation of landmarks and historic buildings; and (8) protection of parks and open space and their access to sunlight and vistas.

Implementation of the proposed project potentially conflicts with Priority Policy No. 8, which calls for the protection of parks and open space and their access to sunlight. The physical environmental impacts that could result from this potential conflict are discussed in **Section 4.E, Shadow**, of this EIR.

Prior to issuing a permit for any project which requires an Initial Study under CEQA, prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of consistency with the *General Plan*, the City is required to find that the proposed project or legislation would be, on balance, consistent with the Priority Policies. Staff reports and approval motions prepared for the decision-makers would include a comprehensive project analysis and findings regarding the consistency of the proposed project with the Priority Policies.

D. OTHER LOCAL PLANS AND POLICIES

In addition to the *General Plan*, the Planning Code and Zoning Maps, and the Accountable Planning Initiative, other local plans and policies that are relevant to the proposed project are discussed below.

- The *San Francisco Sustainability Plan* is a blueprint for achieving long-term environmental sustainability by addressing specific environmental issues including, but not limited to, air quality, climate change, energy, ozone depletion, and transportation. The goal of the *San Francisco Sustainability Plan* is to enable the people of San Francisco to meet their present needs without sacrificing the ability of future generations to meet their own needs.
- The *Climate Action Plan for San Francisco: Local Actions to Reduce Greenhouse Emissions* is a local action plan that examines the causes of global climate change and the human activities that contribute to global warming, provides projections of climate change impacts on California and San Francisco based on recent scientific reports, presents estimates of San Francisco's baseline greenhouse gas emissions inventory and reduction targets, and describes recommended actions for reducing the City's greenhouse gas emissions.
- The *Transit First Policy* (City Charter, Section 8A.115) is a set of principles that underscore the City's commitment to prioritizing travel by transit, bicycle, and on foot over travel by private automobile. These principles are embodied in the objectives and policies of the Transportation Element of the *General Plan*. All City boards, commissions, and departments are required by law to implement Transit First principles in conducting the City's affairs.
- The *San Francisco Bicycle Plan* is a citywide bicycle transportation plan that identifies short-term, long-term, and other minor improvements to San Francisco's bicycle route network. The overall goal of the *San Francisco Bicycle Plan* is to make bicycling an integral part of daily life in San Francisco.
- The *San Francisco Better Streets Plan* consists of illustrative typologies, standards, and guidelines for the design of San Francisco's pedestrian environment, with the central focus of enhancing the livability of the City's streets.
- The *Better Market Street Project* is a plan that envisions a new Market Street that is more beautiful and green, has enlivened public plazas and sidewalks full of cafés, showcases public art and performances, provides dedicated bicycle facilities, and delivers efficient and reliable transit. The goal of the Better Market Street Project is to revitalize and reestablish Market Street as the cultural, civic, and economic center of San Francisco.
- *Transportation Sustainability Fee Ordinance* requires that development projects that filed environmental review applications prior to July 21, 2015, but have not yet received approval, pay 50 percent of the applicable Transportation Sustainability Fee. TSF funds may be used to improve transit serves and improve pedestrian and bicycle facilities.

- The City is in the process of implementing a Transportation Demand Management (TDM) Program that would be applicable to all development projects in the City with 10 or more dwelling units. The TDM Program is designed to work with developers to provide on-site amenities that would encourage smart travel options so people can get around easily without a car. The proposed TDM legislation would require each project to incorporate TDM measures to help them meet a vehicle miles traveled reduction target. To reach the target, projects would include various TDM measures that reduce vehicle miles traveled and support sustainable travel choices.

The proposed project has been reviewed in the context of these local plans and policies and would not obviously or substantially conflict with them. Staff reports and approval motions prepared for the decision-makers would include a comprehensive project analysis and findings regarding the consistency of the proposed project with applicable local plans and policies.

E. PROPOSED MARKET STREET HUB (“THE HUB”) PROJECT

The proposed Market Street Hub Project (the Hub) is a community-based planning effort that seeks to reexamine and propose changes to the current zoning, land use policies, and public realm/street designs for the area referred to as “SoMa West” in the *Market and Octavia Area Plan*. The Hub covers the easternmost portions of the *Market and Octavia Area Plan*. This community-based planning effort would be informed by other City projects, such as the Better Market Street project and Van Ness Bus Rapid Transit, which are reviewing and proposing changes for many of the streets in the project area. The Hub Project would include the following zoning components: zoning changes requiring more permanently affordable housing units, both onsite, offsite, and through in-lieu fees; zoning changes to incentivize development of affordable housing for artists, office space for non-profit organizations, and performance or fine arts studio space; height district increases to introduce a variety of building heights and smooth height transitions to adjacent areas; study of minor use changes such as inclusion of office beyond current Market Octavia allowances; bulk control increases to accommodate building construction efficiencies due to recent building code changes; zoning change to reduce parking maximums; Transportation Demand Management (TDM) policies; and development fees to support project area transit improvements. The Hub Project would include the following potential public realm and transportation components: road diets and sidewalk expansions for 12th, 11th, and Otis Streets; conversion to shared street design or pedestrian-only streets for segments of Colton, Brady, and Stevenson streets, as well as Chase Court; changes to parking, loading, taxi pick-up/drop-off and other on-street curbside conditions; pedestrian improvements and safety enhancements including shared streets, living alleys, plazas, bulb-outs, turn restrictions, and intersection crossing treatments; new public open spaces, including a central neighborhood open space within the Brady Block and potentially other small sites; and bicycle circulation changes, facility improvements and upgrades, and safety improvements. The Hub Project may include potential geometric intersection changes, including new access restrictions.

4. ENVIRONMENTAL SETTING AND IMPACTS

A. CHAPTER INTRODUCTION

Chapter 4, Environmental Setting and Impacts, addresses the physical environmental effects of the proposed project. The format of the environmental analysis in each environmental topic section included in this chapter is presented here. A general description of the Environmental Setting and the approach to the project's analysis of environmental impacts, including reasonably foreseeable future projects that are considered in the cumulative impact analyses, are highlighted in this introduction to Chapter 4.

The Planning Department distributed a Notice of Preparation/Initial Study (NOP/IS) on June 17, 2015, announcing its intent to prepare an EIR and to solicit comments from the public about the scope of this EIR (the NOP/IS is presented as **Appendix A** to this EIR). The NOP/IS determined that project-specific and cumulative impacts in certain topic areas would have no impact, less-than-significant impacts, or less-than-significant with mitigation impacts, and therefore would not require analysis in this EIR. The topics of Population and Housing, Cultural and Paleontological Resources, Noise, Air Quality, Greenhouse Gas Emissions, Recreation, Utilities and Service Systems, Public Services, Biological Resources, Geology and Soils, Hydrology and Water Quality, Hazards and Hazardous Materials, Mineral and Energy Resources, and Agricultural and Forest Resources are not discussed further in the EIR. Please refer to the NOP/IS in **Appendix A** for a discussion of these topics.

The NOP/IS determined that the proposed project could result in potentially significant impacts in the following topic areas: Transportation and Circulation, Wind, and Shadow. These topics are analyzed in this chapter. In addition, although the NOP/IS determined that Land Use and Land Use Planning impacts would be less than significant and would thus not require further analysis in the EIR, this topic is discussed in this EIR for informational purposes only to orient the reader to the surrounding context of the project site that is within the Market and Octavia Neighborhood Plan area.

CEQA SECTION 21099

Aesthetics and Parking Analysis

CEQA Section 21099(d) provides that “aesthetics and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment.” Accordingly, aesthetics and parking are not considered in determining if a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

1. The project is in a transit priority area; and
2. The project is on an infill site; and
3. The project is residential, mixed-use residential, or an employment center.

The proposed project meets each of the above three criteria and thus this EIR does not consider aesthetics and the adequacy of parking supply in determining the significance of project impacts under CEQA.¹

The Planning Department recognizes that the public and decision makers nonetheless may be interested in information pertaining to the aesthetic effects of a proposed project and may desire that such information be provided as part of the environmental review process. Therefore, renderings of the project are included in Chapter 2, Project Description (see **Figure 2.11: Tower Rendering from the South Side of Market Street, Looking West**, and **Figure 2.12: Podium Rendering from the Southeast Corner of Van Ness Avenue and Market Street, Looking Northwest**, pp. 2.18 and 2.19, respectively) for informational purposes. These renderings are not intended to be used to determine the significance of the environmental impacts of the project, pursuant to CEQA.

In addition, CEQA Section 21099(d)(2) states that a Lead Agency maintains the authority to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers and that aesthetics impacts do not include impacts on historical or cultural resources (e.g., historic architectural resources). As such, the Planning Department does consider aesthetics for design review and to evaluate effects on historic and cultural resources.

Automobile Delay and Vehicle Miles Traveled Analysis

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

¹ San Francisco Planning Department, *Transit-Oriented Infill Project Eligibility Checklist*, December 27, 2014. This document is available for review at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2009.0159E.

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 recommending that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. On March 3, 2016, 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).²

Accordingly, this EIR does not contain a discussion of automobile delay impacts. Instead, a VMT and induced automobile travel impact analysis is provided in **Section 4.C, Transportation and Circulation**. The topic of automobile delay, nonetheless, may be considered by decision-makers, independent of the environmental review process, as part of their decision to approve, modify, or disapprove the proposed project. Information about automobile delay and intersection level of service is provided in the Transportation Impact Study prepared for the One Oak Street project.³

FORMAT OF THE ENVIRONMENTAL ANALYSIS

This chapter contains four sections in addition to this Chapter Introduction, each addressing a different environmental topic. They are **Section 4.B, Land Use and Land Use Planning**, **Section 4.C, Transportation and Circulation**, **Section 4.D, Wind**, and **Section 4.E, Shadow**. Each of these sections contains the following two main subsections: Environmental Setting and Impacts and Mitigation Measures.

Environmental Setting

The Environmental Setting subsection for each topic describes the existing conditions at the project site and in the project site vicinity. Existing conditions are generally defined as the physical conditions that existed at the time that the NOP/IS for the proposed project was published on June 17, 2015. Existing conditions serve as the baseline for the analysis of environmental impacts (adverse physical changes) that could result from implementation of the proposed project, presented under the Impacts and Mitigation Measures subsection that follows for each topic. The Environmental Setting subsection also includes a discussion of the Regulatory Framework that describes federal, state, and local regulatory requirements that are directly applicable to the environmental topic.

² The VMT metric does not apply to the analysis of impacts on non-automobile modes of travel such as riding transit, walking, and bicycling.

³ LCW Consulting, *One Oak Street Project Transportation Impact Study*, Case No. 2009.0159E, November 2016.

Impacts and Mitigation Measures

The Impacts and Mitigation Measures subsection describes the physical environmental impacts of the proposed project for each topic, as well as any mitigation measures that could reduce identified significant impacts to less-than-significant levels. This subsection begins with a listing of the significance thresholds used to assess the severity of the environmental impacts for that particular topic. These thresholds are those of the Planning Department’s Initial Study Checklist (Appendix A) and the Impacts sections of this chapter. A “Project Features” discussion summarizes the particular aspects of the proposed project that are relevant to each topic. Environmental topic sections also include a topic-specific “Approach to Analysis” subsection. This discussion explains the parameters, assumptions, and data used in the analysis.

Under the “Impact Evaluation” discussion, the project-level impact analysis for each topic begins with an impact statement that reflects the applicable significance thresholds. Some significance thresholds may be combined in a single impact statement, if appropriate. Each impact statement is keyed to a subject area abbreviation (e.g., TR for Transportation and Circulation) and an impact number (e.g., 1, 2, 3) for a combined alpha-numeric code (e.g., Impact TR-1, Impact TR-2, etc.).

When potentially significant impacts are identified, mitigation measures are presented that would avoid, eliminate, or reduce significant adverse impacts of the project. Each mitigation measure corresponds to the impact statement and has an “M” in front to signify it is a mitigation measure (e.g., Mitigation Measure M-TR-1 for a mitigation measure that corresponds to Impact TR1-1). If there is more than one mitigation measure for the same impact statement, the mitigation measures are numbered with a lowercase letter suffix (e.g., Mitigation Measures M-TR-1a and M-TR-1b). Improvement measures are designated with an “I” to signify “improvement measure,” the topic code, and a letter (e.g., I-TR-A, I-TR-B, etc.).

Each impact statement describes the impact that would occur without mitigation. The level of significance of the impact is indicated in parentheses at the end of the impact statement based on the following terms:

- **No Impact** – No adverse physical changes (or impacts) to the environment are expected.
- **Less Than Significant** – Impact that would not exceed the defined significance criteria or would be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations.
- **Less Than Significant with Mitigation** – Impact that is reduced to a less-than-significant level through implementation of the identified mitigation measures.
- **Significant and Unavoidable with Mitigation** – Impact that exceeds the defined significance criteria and cannot be reduced to less-than-significant levels through compliance with existing local, state, and federal laws and regulations and/or implementation of all feasible mitigation measures.

- **Significant and Unavoidable** – Impact that exceeds the defined significance criteria and cannot be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations and for which there are no feasible mitigation measures.

Improvement measures may also be recommended when further actions, agreed to by the project sponsor, could reduce or avoid impacts that are determined to be less than significant.

Identification of improvement measures is not required under CEQA, but they are often presented in San Francisco environmental documents to inform decision-makers of additional actions that could improve the proposed project by reducing the magnitude of less-than-significant effects.

APPROACH TO CUMULATIVE ANALYSIS

Cumulative impacts of the proposed project are presented in a separate subsection following each topic's project-level impact analysis. Cumulative impact statements are numbered consecutively with a combined alpha-numeric code that starts with "C" to signify it as a cumulative impact. For example, C-TR-1 refers to the first cumulative impact for Transportation and Circulation.

CEQA Guidelines require that an EIR discuss cumulative impacts of a project. CEQA Guidelines Section 15355 defines cumulative impacts in the following way:

“Cumulative Impacts” refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or number of separate projects. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The discussion of cumulative impacts should reflect the severity of impact and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for effects attributable to the project alone. (CEQA Guidelines, Section 15130 (b)). It should be guided by the standards of practicality and reasonableness and should focus on the cumulative impacts to which the identified other projects contribute, rather than the attributes of other project which do not contribute to the cumulative impact.

In this EIR, which includes the NOP/IS, cumulative impacts are analyzed for each environmental topic and the proposed project's contribution to cumulative impacts, if any, is discussed. Cumulative impact analysis in San Francisco generally may employ a list-based approach or a projections approach, depending on which approach best suits the individual resource topic being analyzed.

A list-based approach refers to “a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside of the control of the agency” (CEQA Guidelines, Section 15130(b)(1)(A)). For topics such as shadow and wind, the analysis typically considers large, individual projects that are anticipated in the project area and the extent of the affected setting where possible similar impacts may arise and combine with those of the proposed project. The cumulative analyses in the Wind and Shadow sections each use a different list of nearby projects that is appropriately tailored to the particular environmental topic based on the potential for combined localized environmental impacts.

A projections-based approach refers to “a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions” (CEQA Guidelines, Section 15130(b)(1)(B)). The transportation analysis relies on a citywide growth projection model that also encompasses many individual development and transportation projects anticipated in the project vicinity. The projections model includes many of the larger, individual projects listed below and applies a quantitative growth factor to account for other growth that may occur in the area.

The analysis of cumulative impacts involves the following steps: determining the cumulative context or geographic scope and location of the cumulative projects relative to the affected resource’s setting; assessing the potential for project impacts to combine with those of other projects, including the consideration of the nature of the impacts and the timing and duration of implementation of the proposed and cumulative projects; a determination of the significance of the cumulative impact; and an assessment as to whether the project’s contribution to a significant cumulative effect is considerable. CEQA does not prescribe the use of one specific approach to analyzing cumulative impacts. The rationale used to determine an appropriate list of projects considered in an individual project’s cumulative analysis is explained in the discussion of cumulative impacts for each environmental topic in this EIR.

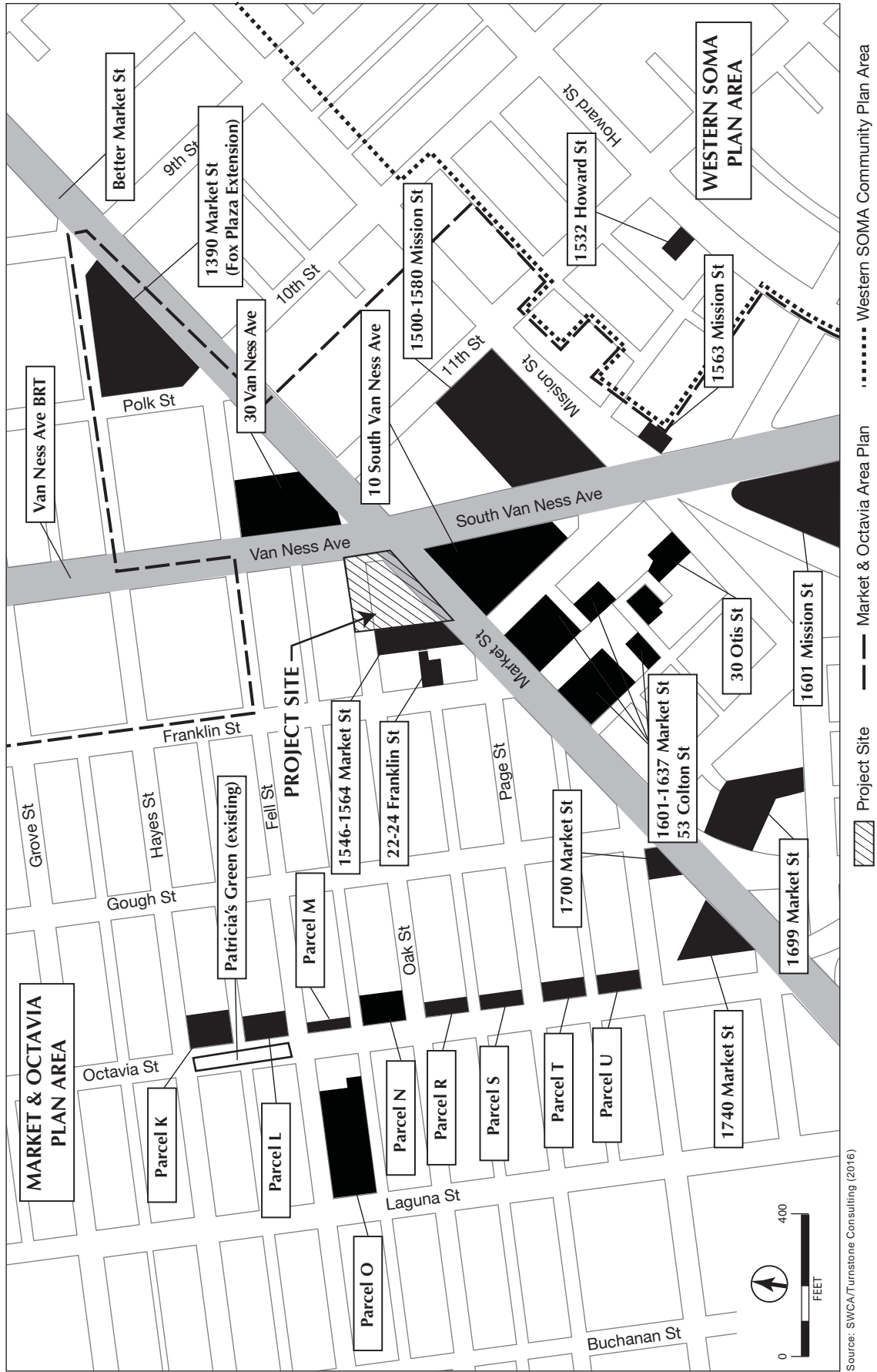
Projects Included in Cumulative Conditions Scenario

The cumulative conditions scenario considers projects not yet under construction but for which Planning Department Environmental Evaluation Applications have been filed, and/or projects that the Department has otherwise determined are reasonably foreseeable within the general vicinity

of the project. These projects are listed below⁴ and shown in **Figure 4.A.1: Location of Foreseeable Future Projects in the Vicinity of the Proposed Project.**

- **30 Van Ness Avenue, Case No. 2015-008571GPR:** The proposal is the sale of a four-story, City-owned office building over ground-floor retail/commercial and the continued use of the office use by the City until the year 2019. It is anticipated that after 2019, the building would be replaced with a 400-foot-tall high-rise residential tower. *Reasonably foreseeable based on sale of property.*
- **22 Franklin Street, Case No. 2013.1005E:** The proposal is to merge two lots, demolish the existing commercial building, and construct an 8-story, 85-foot-tall mixed-use residential building with up to 24 residential units and 2,120 gross square feet (gsf) of retail space along Franklin Street. *Approved.*
- **1546-1564 Market Street, Case No. 2012.0877E:** The proposal is to merge the two lots, demolish the existing buildings, and construct a 12-story, 120-foot-tall mixed-use residential building with up to 109 residential units, up to 28 off-street parking spaces, and approximately 4,900 gsf of ground-floor retail. *Approved.*
- **1601-1637 Market Street, 53 Colton Street (Plumbers Union site), Case No. 2015-005848ENV:** The proposal is to construct up to six buildings with heights ranging from 55 to 85 feet and five to eight stories. The project sponsor is proposing a mix of uses, including 584 residential units, retail, and union facilities. *Currently undergoing environmental review.*
- **1699 Market, Case No. 2014.0484E:** The proposal is to demolish an existing building and surface parking lot and construct a new nine-story residential (162 units) and commercial (3,937 square feet [sq. ft.]) building with 97 below-grade parking spaces. *Approved.*
- **1700 Market, Case No. 2013.1179E:** The proposal is to demolish the existing building and construct an 8-story, 85-foot-tall, mixed-use residential building with up to 43 residential (group housing) units and approximately 1,500 gsf of ground-floor retail space. *Approved.*
- **1740 Market Street, Case No. 2014.0409E:** The proposal is to demolish the existing building and construct a 9-story, 85-foot-tall mixed-use residential building with up to 110 residential (group housing) units and approximately 7,630 gsf of ground-floor commercial space. *Currently undergoing environmental review.*
- **1390 Market Street (Fox Plaza Expansion), Case No. 2005.0979E:** Fox Plaza currently contains two buildings: a 29-story mixed-use building and a 2-story commercial building. The proposal calls for demolishing the existing 2-story building and constructing an 11-story, 120-foot-tall, mixed-use residential building with up to 230 residential units, no parking spaces, and approximately 17,500 gsf of ground-floor commercial space. The existing 29-story mixed-use building would not be changed. *Approved.*

⁴ San Francisco Planning Department, Memo: Cumulative Projects in the Market-Van Ness Area, August 27, 2015.



Source: SWCA/Turnstone Consulting (2016)

FIGURE 4.A.1: LOCATION OF FORSEEABLE FUTURE PROJECTS IN THE VICINITY OF THE PROPOSED PROJECT

ONE OAK PROJECT
2009.0159E

- **10 South Van Ness Avenue (Honda Site), Case No. 2015-004568ENV:** The proposal is to construct a 40-story, 400-foot-tall building with 767 residential units over ground-floor retail. *Currently undergoing environmental review.*
- **1500 Mission Street (Goodwill site), Case No. 2014-000362ENV:** The proposal is to merge the two lots, demolish most of the existing buildings, and construct a new mixed-use building. A portion of the Mission Street frontage and the clock tower element of the 1500 Mission Street building would be retained and reconfigured. The mixed-use building would include approximately 550 residential units in a 380-foot-tall tower, approximately 463,300 gsf of office/permit center space to be occupied by the City and County of San Francisco in a 260-foot-tall tower and podium, 35,000 gsf of ground-floor retail space, and up to 309 off-street parking spaces. The project sponsor is seeking a zoning map amendment to adjust the height/bulk designations and amendments to the Planning Code. *Currently undergoing environmental review.*
- **30 Otis Street, Case No. 2015-010013ENV:** The proposal is to construct a 27-story, 250-foot-tall mixed-use building with 354 residential units over retail. *Currently undergoing environmental review.*
- **1601 Mission Street (Tower Car Wash), Case No. 2014.1121ENV:** The proposal is to demolish the existing gas station facilities and construct an 11-story, 120-foot-tall mixed-use residential building with up to 200 residential units, up to 93 off-street parking spaces in one below-grade basement level, and approximately 10,400 gsf of ground-floor commercial space. *Approved.*
- **1563 Mission Street, Case No. 2014.0095E:** The proposal is to change the use of the existing 44,000-sq.-ft. building from commercial use to medical and social services to be provided by HealthRight360, and add 6,000 sq. ft. The project would involve interior tenant improvement, replacement of a mezzanine, and façade changes. *Approved.*
- **1532 Howard Street, Case No. 2013.1305E:** The proposal is to demolish an existing one-story commercial building and construct a six-story residential building with 15 single room occupancy units. *Approved.*
- **455 Fell Street, Case No. 2015.002837:** The proposal is to construct a six-story building with 100 percent affordable housing development financed by the Mayor's Office of Housing. The project is 112 residential units, 1,200 sq. ft. of retail space, and 2,028 sq. ft. of office space; no vehicle parking would be provided. *Approved.*
- **Western SoMa Area Plan, Case No. 2008.0877:** The *Western SoMa Community Plan* is an element of the *San Francisco General Plan*. The Plan Area comprises approximately 298 acres in the western portion of the South of Market. The various components of the Plan include increases and decreases in building heights on selected parcels due to proposed height and bulk district reclassifications; increases and decreases in density on selected parcels due to proposed use district reclassifications that replace density standards with other mechanisms to account for density, such as building envelope controls; streetscape improvements along designated streets and intersections, including installation of signalized pedestrian crossings; sidewalk extensions and corner bulbouts; gateway treatments such as signage and lighting; physical roadway features such as enhanced hardscape areas, landscaped islands and colored textured pavement; public realm greening amenities (i.e., street trees and planted medians); and other pedestrian

enhancements (i.e., street furniture and public restrooms). *The Western SoMa Community Plan has been adopted and plan implementation is currently underway.*

- **Van Ness Bus Rapid Transit, State Clearinghouse No. 2007092059:** The Van Ness Avenue Bus Rapid Transit (BRT) project is a program to improve Muni bus service along Van Ness Avenue between Mission and Lombard streets through the implementation of operational and physical improvements. The operational improvements consist of (1) designating bus-only lanes to allow buses to travel with fewer impediments, (2) adjusting traffic signals to give buses more green lights at intersections, and (3) providing real-time bus arrival and departure information to passengers to allow them to manage their time more efficiently. The physical improvements consist of building high-quality and well-lit bus stations to improve passenger safety and comfort, and providing streetscape improvements and amenities to make the street safer and more comfortable for pedestrians and bicyclists who access the transit stations. *Construction anticipated to commence in 2016.*
- **Better Market Street Project, Case No. 2014.0012E:** The project sponsor, San Francisco Public Works, in coordination with the San Francisco Planning Department and the San Francisco Municipal Transportation Agency (SFMTA), proposes to redesign and provide various transportation and streetscape improvements to the 2.2-mile segment of Market Street between Octavia Boulevard and The Embarcadero as part of the proposed Better Market Street Project. Improvements could potentially be made to three additional routes: the 2.3-mile segment of Mission Street between Valencia Street and The Embarcadero; Valencia Street between Market and McCoppin streets; and 10th Street between Market and Mission streets. Proposed project elements consist of both transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic signals; surface transit, including transit-only lanes, stop spacing, service, stop location, stop characteristics and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities. The EIR for the Better Market Street Project will analyze three alternatives:
 - Alternative 1: Market Street (Complete Street and Transit Priority Improvements)
 - Alternative 2: Market Street Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)
 - Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission)

Alternatives 1 and 2 include two designs for the bicycle facilities on Market Street, Design Option A and Design Option B. Under Option A, an enhanced version of the existing shared vehicle and bicycle lane with painted sharrows (shared lane pavement markings) would be provided at locations currently without a dedicated bicycle facility. Under Option B, a new raised cycle track (a bicycle facility provided for the exclusive or primary use of bicycles that is physically separated from motor traffic and distinct from the sidewalk) the entire length of Market Street would be provided, except at locations where the BART/Muni entrances or other obstructions would not allow it. Alternative 3 includes the proposed bicycle facilities on Market Street described under Option A and adds a cycle track in both directions on Mission Street. Based on the EIR and other

analysis and comment, a project proposal within the range of these alternatives would be proposed for consideration and approval. *The Better Market Street Project is currently undergoing environmental review.*

- **Central Freeway Parcels:**⁵ The removal of the Central Freeway and construction of Octavia Boulevard created 22 publicly owned parcels. These sites were evaluated at a project level in the *Market and Octavia Neighborhood Plan Final Environmental Impact Report*, Case No. 2003.0347E. Some of the freeway parcels have not yet been constructed or received entitlements, including the following:
 - **Parcel K (370 Linden Street) (APN 0817/068):** The approximately 11,430-sq.-ft. site is occupied with temporary retail and restaurant uses. The original proposal included the development of up to 25 residential units in a mixed-use residential building. *Environmental review was completed as part of the Market & Octavia Plan FEIR and no entitlement applications have been filed.*
 - **Parcel L (404-428 Octavia Street) (APN 0817/033):** The approximately 13,595-sq.-ft. site is occupied with temporary restaurant uses. The original proposal included the development of up to 25 residential units in a mixed-use residential building. *Environmental review was completed as part of the Market & Octavia Plan FEIR and no entitlement applications have been filed.*
 - **Parcel M (379 Fell Street) (APN 0832/026), Case File No. 2014-002330ENV:** The approximately 3,000-sq.-ft. site is currently vacant and was identified as Central Freeway Parcel M in the *Market & Octavia Plan FEIR*. The proposal is to construct a five-story, 55-foot-tall mixed-use residential building. *Currently undergoing environmental review.*
 - **Parcel N (300 Octavia Street) (APN 0832/025), Case File No. 2014-002330ENV:** The approximately 3,000-sq.-ft. site is currently vacant. The proposal is to construct a five-story mixed-use residential building with up to 16 micro residential units and approximately 650 gsf of ground-floor retail space. *Approved.*
 - **Parcel O (APN 0831/024), Case File No. 2015-002837 ENV:** The proposed project is to construct a 6-story, 55-foot-tall building with 100 percent affordable housing development financed by the Mayor's Office of Housing. The project encompasses 112 residential units, 2,100 sq. ft. of retail space, and 1,470 sq. ft. of office space; no vehicle parking space would be provided. *Currently undergoing environmental review.*
 - **Parcels R and S (APN 0838/035), Case File No. 2014-002101ENV:** The project consists of the development of both parcels R and S into a mixed-use 100 percent affordable residential project consisting of two buildings, partially satisfying the "Offsite BMR" [below market rate] requirement for the multi-

⁵ The *Market & Octavia Plan FEIR* analyzed these projects at the project-level and these projects are subject to streamlined environmental review requirements under CEQA Guidelines Section 15183. That section provides an exemption from environmental review for projects that are consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified, except as might be necessary to examine whether there are project-specific effects which are peculiar to the project or its site.

family One Oak Street residential project. The proposed project would provide approximately 19,968 gsf of permanently affordable residential housing and approximately 4,925 gsf of neighborhood-serving retail. *Currently undergoing environmental review.*

- **Parcel T (APN 0853/022):** The proposal is to construct a 5-story, 55-foot-tall mixed-use residential building with up to 26 residential units, up to 13 residential parking spaces, and approximately 5,320 gsf of ground-floor retail space. *Environmental review completed as part of the Market & Octavia Plan FEIR and no entitlement applications have been filed.*
- **Parcel U (APN 0853/021):** The proposal includes the development of a 5-story, 55-foot-tall, 32-residential-unit, mixed-use building on the approximately 13,198-sq.-ft. lot, which is currently vacant. *Environmental review completed as part of the Market & Octavia Plan FEIR and no entitlement applications have been filed.*

Projects Not Included in Cumulative Conditions Scenario

Projects Recently Completed or Under Construction

Approved projects under construction or recently completed as of the date of a project's NOP are considered part of the existing conditions. These projects include the following:

- **1400 Mission Street, Case No. 2011.1043E:** 15 stories, 150 feet; residential over retail. *Under construction.*
- **1415 Mission Street, Case No. 2005.0540E:** 12 stories, 130 feet; residential over retail. *Under construction.*
- **1321 Mission Street, Case No. 2011.0312E:** 11 stories, 120 feet; residential over retail. *Under construction.*
- **101 Polk Street, Case No. 2011.0702E:** 13 stories, 120 feet; residential. *Under construction.*
- **100 Van Ness Avenue, Case No. 2012.0032E:** Conversion of existing building from office to residential. *Recently completed.*
- **Central Freeway Parcel V (8 Octavia Street), Case No. 2011.0931E:** 8-story, 75 feet, residential over retail. *Recently completed*
- **1 Franklin Street, Case No. 2014.1423V:** 8-story, up to 85-foot-tall, residential over commercial. *Under construction.*
- **150 Van Ness Avenue, Case No. 2013.0973E:** 12-story, up to 120-foot-tall mixed-use residential building. *Under construction.*

For the wind and shadow studies for the proposed One Oak Street Project, projects under construction were modeled as if they are fully constructed, even if only demolition of existing structures has occurred.

The Proposed Market Street Hub (“the Hub”) Project

See description of the proposed Hub Project on p. 3.9. No EE Application has been filed for this project. It is not included in the cumulative impact analyses in this EIR because at this point, it is in its planning stages and is considered speculative. It is discussed here for informational purposes.

B. LAND USE AND LAND USE PLANNING

Section 4.B, Land Use and Land Use Planning, examines the proposed project's land use and land use planning impacts, discusses the effects on existing land use that would occur if the proposed project were implemented, and discusses the cumulative land use effects of the proposed project in combination with other proposed, planned, or reasonably foreseeable development projects. The Notice of Preparation/Initial Study (pp. 46-56 in **Appendix A** to this EIR) determined that implementation of the proposed project would not disrupt or divide the neighborhood or adversely affect the character of the site vicinity. This discussion is therefore included in this EIR for informational purposes, to contextualize for the reader the land use character of the project site and its surroundings.

ENVIRONMENTAL SETTING

The project site occupies a central and prominent position at the intersection of Market Street and Van Ness Avenue, two of the City's widest and most recognizable thoroughfares. The project site is located at an important transit node: rail service is provided underground at the Van Ness Muni Metro Station as well as via historic streetcars that travel along Market Street. Bus and electric trolley service is provided on Van Ness Avenue and Market Street.

LAND USE CHARACTER OF THE PROJECT VICINITY

The project vicinity is an urban, mixed-use area that includes a diverse range of residential, commercial, institutional, office, and light industrial uses. Despite this diversity, existing general spatial patterns are evident, mostly discernible by geography. Offices are located along Market Street and Van Ness Avenue, and most government and public uses are located to the north in the Civic Center. The area is currently in transition, with residential uses being built along Market Street and Van Ness Avenue in recent years.

The project site is located within the southwestern edge of downtown in the C-3-G (Downtown Commercial, General) District, characterized by a variety of retail, office, hotel, entertainment, and institutional uses, and high-density residential. West of the project block, west of Franklin Street, is an NC-3 Moderate Scale Neighborhood Commercial District that comprises a diverse mix of residential, commercial, and institutional uses. South of Market Street, and west of 12th Street, are the WSOMA Mixed Use, General and Production, Distribution and Repair (PDR) Districts.

To the West

The adjacent building immediately to the west of the project site along Market Street is 1546 Market Street, a three-story office over a ground-floor retail building built in 1912.

Further west along Market Street is 1554 Market Street, a one-story retail building built in 1907. 55 Oak Street, a one-story automotive repair building built in 1929, is at the rear of the same lot.

The southwestern corner of the project block is occupied by a six-story apartment building over ground-floor retail at 1582 Market Street, built in 1917. The northwestern corner of the project block is occupied by a surface parking lot.

To the North

To the northwest of the project site along the north side of Oak Street is the Conservatory of Music at 50 Oak Street, a five-story Neoclassical building built in 1914. Immediately to the west of that building is a modern addition to 50 Oak Street. The Conservatory building houses studio, classroom, office, and performance space.

Immediately to the north of the project site is 25 Van Ness Avenue, an eight-story Renaissance Revival building built in 1910. The building currently has ground-floor retail and offices on the upper floors. The building also houses the San Francisco New Conservatory Theater. Further north along the west side of Van Ness Avenue is 77 Van Ness Avenue, an eight-story residential building with ground-floor retail, built in 2008.

To the East

Immediately to the east of the project site is Van Ness Avenue, the major north-south arterial in the central section of San Francisco that runs between Beach and Market streets. Between Market and Cesar Chavez streets, Van Ness Avenue continues as South Van Ness Avenue. Van Ness Avenue is part of U.S. 101 between Lombard Street and the Central Freeway (via South Van Ness Avenue). In the vicinity of the proposed project, Van Ness Avenue has three travel lanes in each direction separated by a center median, and parking on both sides of the street.

Along the east side of Van Ness Avenue, across from the project site to the northeast, is 30 Van Ness Avenue (also known as 1484-1496 Market Street), a five-story office over ground-floor retail building. The building was originally built in 1908, but its façade was extensively remodeled around 1960.

To the South

Immediately to the south of the project site is Market Street, a roadway that includes two travel lanes and a bicycle lane in each direction. Historic streetcars use the center-running tracks and transit stops within the Market Street roadway.

On the south side of Market Street at the southeast corner of Market Street and 11th Street (due east of the project site) is 1455 Market Street, a 22-story office building over ground-floor commercial, built in 1979. This building terminates eastward views along Oak Street.

At the southeast corner of Market Street and Van Ness Avenue, diagonally across the intersection of Market Street and Van Ness Avenue, is One South Van Ness Avenue, an eight-story office building over ground-floor commercial (Bank of America), built in 1959.

At the southwest corner of Market Street, across Market Street from the project site, is 10 South Van Ness Avenue, a one-story car dealership.

REGULATORY FRAMEWORK

Chapter 3, Plans and Policies, identifies the regulatory framework applicable to the proposed project with respect to land use and land use planning and evaluates whether the project could potentially conflict with land use plans and policies that have been adopted for the purpose of mitigating environmental impacts. Plans and policies considered in this EIR include the *San Francisco General Plan*, the *Market and Octavia Neighborhood Plan*, the San Francisco Planning Code, the Accountable Planning Initiative (Proposition M), and other local and regional plans and policies, as well.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE THRESHOLDS

The thresholds for determining the significance of impacts in this analysis are consistent with the environmental checklist in Appendix G of the State *CEQA Guidelines*, which has been adopted and modified by the San Francisco Planning Department. For the purpose of this analysis, the following applicable thresholds are used to determine whether implementing the project would result in a significant land use impact. Implementation of the proposed project would have a significant effect on land use and planning if it would:

- Physically divide an established community;
- 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; or
- Have a substantial impact upon the existing character of the vicinity.

APPROACH TO ANALYSIS

A project that involves a change or intensification in land use would not be considered to have a significant impact related to the topic of Land Use and Land Use Planning unless the project would physically divide an established community, or have a substantial impact on the existing character of the vicinity. Conflicts with existing land use plans and policies are discussed under Impact LU-2 below, and in Chapter 3, Plans and Policies.

As noted above, the NOP/IS determined that the proposed project would not have any significant impact related to land use and land use planning. However, this discussion is included in this EIR for informational purposes only to orient the reader to the land uses in the project site's vicinity.

PROJECT FEATURES

The proposed project consists of the demolition of two existing commercial buildings and an existing surface parking lot on the project site and construction of a new 310-unit high-rise residential tower (40 stories, 400 feet tall, plus a 20-foot-tall parapet). The proposed residential tower would include ground-floor commercial space, and accessory parking spaces for building residents in a subsurface garage as well as improvement to surrounding public streets to accommodate the proposed Oak Street Plaza as described in greater detail on pp. 2.22-2.25 of the Project Description.

IMPACT EVALUATION

Impact LU-1: The proposed project would not physically divide an established community. *(Less than Significant)*

The proposed project would not create a physical barrier to neighborhood access or remove an existing means of access. The proposed residential building would be developed within the delineated limits of its parcel, as amended, and would not encroach into a public right-of-way. The proposed project would create a new public pedestrian plaza within the Oak Street right-of-way. The proposed project also includes placement of a canopy structure within the Oak Street public right-of-way covering a portion of Oak Plaza.

The proposed project would not create a barrier or obstruction that would physically divide the community. Rather, the project's proposed improvements to public streets are intended to enhance the pedestrian environment and facilitate pedestrian circulation and connectivity in the area. Oak Plaza would continue to be accessible to emergency vehicles and the proposed canopy structure would provide adequate clearances for emergency vehicles, as discussed in **Section 4.C, Transportation and Circulation**, on p. 4.C.61. The proposed project may also include construction of a southbound contraflow fire lane to enhance the route options for emergency vehicles. Vehicle access to properties on Oak Street west of the project site would continue to be

available from Van Ness Avenue. For these reasons, the proposed project would have a less-than-significant effect with respect to physically dividing the surrounding community. No mitigation measures are necessary.

Impact LU-2: The proposed project would not conflict with *General Plan* objectives and policies adopted for the purpose of avoiding or mitigating an environmental effect. (*Less than Significant*)

At a height of 400 feet, the westernmost portion of the proposed project tower would exceed the 120-foot height limit applicable to this portion of the building site. As discussed above in Initial Study Section C, Compatibility with Existing Plans and Policies, most of the building site component of the project site (Lots 1 through 4 plus the eastern half of Lot 5) is in a 120/400-R-2 Height and Bulk District. However, the westernmost portion of the building site (the western half of Block 0836, Lot 5) is in a 120-R-2 Height and Bulk District. The project, as currently proposed, would require *General Plan* and Zoning Map amendments to shift the 120/400-R-2 Height and Bulk District from the easternmost parcel (Lot 1), to the westernmost portion of the westernmost parcel (Lot 5). The proposed rearrangement of the existing height districts within the building site component of the project site would not substantially alter the general land use pattern envisioned for the immediate area, which calls for residential uses in tall slender towers at the intersection of Market Street/Van Ness Avenue. As discussed in Chapter 3, Plans and Policies on p. 3.5, the purpose of the height reclassification is to improve wind conditions within the project site and vicinity and to maximize the project's provision of publicly accessible open space.

This conflict would not in itself result in a significant environmental impact under CEQA because this aspect of the proposed project would not conflict, on balance, with plans and land use regulations adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project would substantially conform to the general land use pattern for height and bulk envisioned for the immediate area under the *Market and Octavia Area Plan*. The Plan calls for a concentration of density in areas, such as the project site, best served by transit and accessible by foot. The *Market and Octavia Area Plan* also envisions the intersection of Market Street and Van Ness Avenue marked by prominent visual landmarks in the form of tall slender towers. The proposed project is also consistent with the Van Ness and Market Downtown Residential Special Use District which, under Planning Code Section 249.33, envisions a transit-oriented, high-density, mixed-use neighborhood with a significant residential presence for the area. The proposed project would not substantially conflict with applicable plans and policies and no mitigation measures are necessary.

Impact LU-3: The proposed project would not have a substantial impact on the existing character of the vicinity. (*Less than Significant*)

The proposed project would not have a substantial demonstrable adverse impact on the existing character of the built environment, nor on the existing land use character of the vicinity.

Existing Character of the Built Environment

The proposed project, at 40 stories and 400 feet tall (420 feet tall including a 20-foot-tall mechanical penthouse), would be substantially taller than surrounding structures. As discussed above in **Environmental Setting**, on pp. 4.B.1-4.B.3, the existing character of the project site and its surroundings is varied. Building height, scale, siting, massing, architectural character, and age do not conform to any strongly discernible overall pattern. The proposed project would be contemporary in architectural character and would increase and contribute to the existing variety of forms and features that characterizes existing buildings in the area.

Implementation of the proposed project would introduce a prominent new building, public plaza with wind canopies within the project site where no such features currently exist. The design of the proposed project is intended to contribute the visual interest and variety to its setting, an area characterized by a varied character of development. The proposed project would also include features intended to improve the pedestrian environment. The proposed new 400-foot-tall building, public plaza, and wind canopy structure would not be inconsistent with the existing dense and varied urban environment in the area. As discussed above under Impact LU-2, the proposed project would also be generally consistent with the City's overall vision for future density, height and visual prominence of new buildings at the Van Ness Avenue/ Market Street intersection under the *General Plan* and the *Market and Octavia Area Plan*.

For these reasons, the proposed project would have a less-than-significant impact on the existing character of the site and its surroundings. No mitigation measures are necessary.

Existing Land Use Character

The project site is in the C-3-G District. Pursuant to Planning Code Section 210.2, the C-3-G District includes diverse retail, office, hotel, entertainment, institutional, and high-density residential uses. Many of these uses have a citywide or regional function, although the intensity of development is lower here than in the downtown core area. As in the case of other downtown districts, no off-street parking is required for individual commercial buildings. In the vicinity of Market Street, the configuration of this district reflects easy accessibility by rapid transit.

Implementation of the proposed mixed-use, high-density residential project would be compatible with existing uses in the vicinity and would not fundamentally alter the land use character of the project vicinity by introducing incompatible land uses. Likewise, the proposed new public open

space use for the proposed Oak Plaza (which, like other urban plazas, would include seating and food service, and could also be used for events) would not conflict with the existing diverse retail, office, entertainment, institutional, and residential land uses in the area. The intensification and change of uses over time is a commonly expected and experienced consequence of urban growth in San Francisco, particularly along or near mass transit corridors such as Market Street and Van Ness Avenue where there has been substantial public investment in transit infrastructure.

For these reasons, the proposed project would not have a substantial adverse impact on the existing land use character of the vicinity. This impact would be less than significant, and no mitigation measures are necessary.

The physical impacts of construction and operation of the proposed land uses within the project site are manifested in environmental impacts that are discussed in the NOP/IS and under the environmental topics presented in this EIR.

CUMULATIVE IMPACT EVALUATION

Impact C-LU-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not make a cumulatively considerable contribution to a significant cumulative land use impact. (*Less than Significant*)

The proposed project combined with other past, present, and reasonably foreseeable future projects would result in the construction of a high-density mixed-use residential building that would contribute a substantial amount of housing and introduce new residential population in an area of the City where these types of changes are planned and encouraged. The proposed project would implement the types and densities of uses envisioned by the *Market and Octavia Area Plan* and analyzed in the *Market Octavia FEIR*. The *Market Octavia FEIR* analyzed a building height designation of 120-400 feet tall. That FEIR found that Plan implementation could result in three major land use effects: 1) provision of an almost three-fold increase in total housing development in the area compared to existing conditions; 2) creation of a sustainable and more efficient land use pattern by concentrating and redirecting land uses into higher density, residential mixed-use projects near transit and neighborhood retail and services; and 3) a reduction in the negative land use effects of automobile traffic and parking in the area, including the creation of more livable and safe street environments for residents, pedestrians, and bicyclists.

That EIR further found that additional housing development in the area in combination with other housing development in the vicinity would provide a more sustainable transit-oriented development pattern and would not disrupt or divide an established community or have a substantial adverse impact on the existing character of the project vicinity and that the cumulative impacts would not be significant. The introduction of high-rise residential development at the prominent intersection of Market Street and Van Ness Avenue, as envisioned in the *Market and*

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Octavia Area Plan and analyzed in the FEIR, would transform the existing land use character of the area and would extend the general building scale of the downtown area westward to Van Ness Avenue. The *Market Octavia FEIR* did not identify any significant adverse effects related to Land Use that would result from such a change.

The proposed project, in combination with past, present, and reasonably foreseeable future projects in the southwestern portion of Downtown and the *Market and Octavia Area Plan*, would contribute to increases in the amount of residential and retail uses in the project vicinity that are anticipated and planned for in the *Market and Octavia Plan*, such as the development on parcels along the east side of Octavia Boulevard. (See **Figure 4.A.1** in Section 4.A, Chapter Introduction, on p. 4.A.8.) This cumulative development is not expected to result in the construction of any physical barriers to neighborhood access or the removal of any existing means of access, either of which would physically divide the established community. In addition, this cumulative development is not expected to introduce any land uses, such as industrial uses, that would disrupt the community's established land use patterns.

There are two reasonably foreseeable projects within the project block: 1546-1564 Market Street and 22 Franklin Street. The 1546-1564 Market Street site is immediately adjacent to the project site to the west. That proposed project includes demolition of existing buildings on that site and construction of a 12-story, 120-foot-tall, mixed-use residential building with up to 109 residential units, up to 28 off-street parking spaces, and approximately 4,900 gross square feet of ground-floor retail. The 22 Franklin Street site is further west and fronts along Franklin Street. That project calls for demolition of the existing commercial building on that site, and construction of an 8-story, 85-foot-tall mixed-use residential building with up to 24 residential units, and 2,120 gross square feet of retail space. The proposed mixed-use residential project would be consistent with the land use character of these anticipated mixed-use residential projects on the project block as well as several other nearby residential proposals in the vicinity of the project site. The proposed project would be substantially taller and denser than these other projects in the vicinity. However, these projects, together with the proposed project, implement the *Market and Octavia Area Plan*, extending the downtown high-rise scale westward to properties at the intersection of Van Ness Avenue and Market Street with a transition to mid-rise development further west of the intersection.

Under the proposed project, the changes to Oak Street and the Van Ness Avenue and Market Street sidewalks would not conflict with implementation of anticipated transportation network changes near Van Ness Avenue and Market Street, in particular, the Van Ness Bus Rapid Transit Project. The Van Ness Bus Rapid Transit will create two dedicated transit lanes, one northbound and one southbound, flanked by stations and shelters, in the center of Van Ness Avenue. Most left turns from Van Ness Avenue would be eliminated. The proposed project would not conflict with these or other proposed transportation network changes along Van Ness Avenue and Market

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Street. See **Section 4.C, Transportation and Circulation** which analyzes the impacts of the proposed project in combination with anticipated transportation network changes along Van Ness Avenue and Market Street.

The proposed project, in combination with past, present, and reasonably foreseeable future projects, would also be consistent with local and regional growth projections, such as *Projections 2013*, published by ABAG, and adopted planning documents, such as the 2017 Update of the Housing Element of the *San Francisco General Plan*. The project is not expected to conflict with any land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Implementation of the proposed project, in combination with past, present, and reasonably foreseeable future projects, would intensify uses in the project vicinity, but not to a level that had not already been planned for in plans that guide growth and change in the vicinity. The project would not introduce any land uses that do not already exist in the area, and the open space improvements that would be developed in the Oak Plaza area would not disrupt or divide the neighborhood or obstruct emergency vehicle access. As a result, the project would not contribute to adverse or substantial changes to the character of the site's vicinity.

Based on the foregoing, the project's land use impacts would be less than significant. Further, the proposed project would not make a cumulatively considerable contribution to a significant cumulative land use impact, and no mitigation measures are necessary.

C. TRANSPORTATION AND CIRCULATION

INTRODUCTION

Section 4.C, Transportation and Circulation, summarizes and incorporates by reference the results of the Transportation Impact Study (TIS) prepared by the transportation consultant for the proposed project in accordance with the San Francisco Planning Department's 2002 *Transportation Impact Analysis Guidelines for Environmental Review (SF Guidelines 2002)*.¹ The transportation analysis examines project impacts on vehicle miles traveled (VMT), traffic hazards, transit, pedestrians, bicycles, loading, and emergency vehicle access, as well as the impacts of construction activities. All of these transportation subtopics are considered in the discussions of existing conditions; existing plus project and project variant; and year 2040 cumulative conditions. This section also includes a parking demand analysis, presented for informational purposes in this EIR.

The proposed project and its variant include the same land uses on the project site and were therefore evaluated together. The differences between the proposed project and its variant are limited to the relocation of the Muni Van Ness Station elevator within the project site and the elimination of the proposed Franklin Street contraflow fire lane.

ENVIRONMENTAL SETTING

The project site is located within a developed urban area at the northwest corner of the intersection of Market Street and Van Ness Avenue in the southwestern portion of San Francisco's Downtown/Civic Center neighborhood. The project site includes the One Oak building site and the streetscape improvement area within surrounding public rights-of-way. The building site is made up of five contiguous lots that together form an 18,735-square-foot (sq. ft.) trapezoid, bounded by Oak Street to the north, Van Ness Avenue to the east, Market Street to the south, and the interior property line shared with the neighboring properties to the west. The building site measures about 177 feet along its Oak Street frontage, 39 feet along Van Ness Avenue, 218 feet along Market Street, and 167 feet along its western interior property line.

The easternmost portion of the building site, 1500 Market Street, is currently occupied by an existing three-story, 2,750-sq.-ft. commercial building (with All Star Café on the ground floor). This building also contains an elevator entrance to the Muni Van Ness station that opens onto Van Ness Avenue. Immediately west of the 1500 Market Street building is an existing 30-car surface parking lot. The parking lot is fenced along its Market Street and Oak Street frontages and

¹ LCW Consulting, *One Oak Street Project Transportation Impact Study, Case No. 2009.0159E*, November 2016 (hereinafter referred to as "TIS").

is entered from Oak Street. The westernmost portion of the project site at 1540 Market Street is occupied by a four-story, 48,225-sq.-ft. commercial office building, built in 1920. This building is currently partially occupied.

The transportation study area is generally two blocks north of the project site, to Hayes Street; two blocks east of the project site, to Larkin Street/Ninth Street; one block south of the project site, to Mission Street; and three blocks west of the project site, to Gough Street. The study area is shown in **Figure 4.C.1: Transportation Study Area**.

ROADWAY NETWORK

Regional Access

The following regional highway transportation facilities link San Francisco with other parts of the Bay Area, as well as Northern and Southern California: Interstate 80 (I-80), United States Highway 101 (U.S. 101), and Interstate 280 (I-280). The project site is accessible by local streets with connections to and from these regional freeways.

I-80 provides regional access to and from the East Bay. The San Francisco-Oakland Bay Bridge is part of I-80 and connects San Francisco with the East Bay and points east. I-80 is located south of the study area, generally between Harrison and Bryant streets. I-80 and U.S. 101 have an interchange less than 1 mile southeast of the project site. The closest access to and from the project site from I-80 is via U.S. 101 and the on- and off-ramps at Market Street and Octavia Boulevard.

U.S. 101 provides regional access to and from the North Bay and Peninsula/South Bay. U.S. 101 connects San Francisco and the North Bay via the Golden Gate Bridge. Access to the Peninsula/South Bay is provided via U.S. 101 and I-280, which have an interchange approximately 3 miles south of the project site. Van Ness Avenue serves as U.S. 101 between Market Street and Lombard Street (see description of Van Ness Avenue below under “Local Access”). The closest ramps to the U.S. 101 freeway structure are at Market Street and Octavia Boulevard.

I-280 provides regional access from the South of Market area of downtown San Francisco to southern San Francisco, the Peninsula, and the South Bay. I-280 and U.S. 101 have an interchange approximately 3 miles south of the project site. The closest access to and from the project site from I-280 is via U.S. 101 and the on-ramps and off-ramps at Market Street and Octavia Boulevard. The closest I-280 ramps are the on-ramps and off-ramps at Sixth Street and Brannan streets.



Source: LCW Consulting (2016)

 TRANSPORTATION STUDY AREA
 PROJECT SITE

FIGURE 4.C.1: TRANSPORTATION STUDY AREA

Local Access

This section describes the existing local roadway system in the vicinity of the project site, including the roadway designation, number of travel lanes, and traffic flow directions.

Gough Street is a one-way, southbound-only arterial south of Sacramento Street connecting Lombard Street (U.S. 101 from the Golden Gate Bridge) and Market Street, and forms a one-way couplet with Franklin Street (which operates northbound-only). Gough Street generally has three to four travel lanes (i.e., four travel lanes when peak period tow-away restrictions are in effect), and parking on both sides of the street. At the intersection of Gough/Geary, southbound left turns from Gough Street onto Geary Boulevard are not permitted. In the *San Francisco General Plan (General Plan)*, Gough Street is designated as a Major Arterial in the Congestion Management Program (CMP) Network, part of the Metropolitan Transportation System (MTS) Network, and as a Neighborhood Commercial Street between Golden Gate Avenue and Market Street.

Franklin Street is a one-way, northbound-only arterial connecting Market Street to Lombard Street (U.S. 101 to the Golden Gate Bridge), and forms a one-way couplet with Gough Street (which operates southbound-only south of Sacramento Street). Franklin Street generally has three to four travel lanes (i.e., four travel lanes when PM peak period tow-away restrictions are in effect), and parking on both sides of the street. The *General Plan* classifies Franklin Street as a Major Arterial in the CMP Network, part of the MTS Network, and as a Neighborhood Commercial Street between Golden Gate Avenue and Market Street.

Van Ness Avenue is the major north-south arterial in the central section of San Francisco that runs between Beach and Market streets. Between Market and Cesar Chavez streets, Van Ness Avenue continues as South Van Ness Avenue. Van Ness Avenue is part of U.S. 101 between Lombard Street and the Central Freeway (via South Van Ness Avenue). In the vicinity of the proposed project, Van Ness Avenue has three travel lanes in each direction separated by a center median, and parking on both sides of the street. Left turns from Van Ness Avenue are limited; in the project vicinity southbound left turns are permitted at O'Farrell Street, Golden Gate Avenue, McAllister Street, and Grove Street, and northbound left turns are permitted at Hayes, Grove, and Turk streets. Van Ness Avenue is designated as a Major Arterial in the CMP Network, part of the MTS Network, a Primary Transit Street (transit important), part of the Citywide Pedestrian Network, and a Neighborhood Commercial Street in the *General Plan*.

South Van Ness Avenue is a north-south major arterial that runs between Market and Cesar Chavez streets. It has two travel lanes in each direction. In the *General Plan*, South Van Ness Avenue is classified as a Major Arterial in the CMP Network and a MTS Network Street. Between Market and 13th streets, South Van Ness Avenue is part of U.S. 101 (see the description of Van Ness Avenue above).

Polk Street runs between Beach Street and the intersection of Market and Fell streets. South of Market Street, Polk Street turns into 10th Street. In the vicinity of the proposed project, Polk Street is one-way southbound, with two travel lanes and parking on both sides of the street. Between Grove and Turk streets, Polk Street is two-way, with two southbound travel lanes and one northbound travel lane; north of Turk Street, Polk Street is one lane in each direction. Bicycle Route 25 runs northbound and southbound along Polk Street between Beach Street and Market Street. A bicycle lane (Class II facility) is provided in the southbound direction between Post and Market streets, in the southbound direction between Union and Lombard streets, and in the northbound direction between Market and McAllister streets and between Union and Beach streets. A signed route (Class III facility) is provided on the remaining segments of Polk Street.

Larkin Street is a north-south street that runs between Beach and Market streets. Larkin Street operates one-way in the northbound direction between Market and Grove streets, and between McAllister and California streets. Larkin Street is two-way between California and Beach streets and between Grove and McAllister streets. At Market Street, Ninth Street turns into Larkin Street. In the *General Plan*, Larkin Street is classified as a Secondary Arterial in the CMP Network, part of the MTS Network, and as a Neighborhood Network Connection Street. Larkin Street between Market and McAllister streets is part of Bicycle Route 25 (signed route – Class III facility).

Ninth Street is a north-south one-way roadway that extends from Division Street to Market Street, and forms a one-way couplet with Tenth Street. Ninth Street is generally a four-lane, northbound roadway with on-street metered parking on both sides. Parking is prohibited along both sides of Ninth Street during the PM peak period to provide two additional travel lanes. Ninth Street provides direct northbound access from the U.S. 101 northbound off-ramp at Ninth Street/Bryant Street and the I-80 westbound off-ramp at Eighth Street/Harrison Street. In the *General Plan*, Ninth Street is designated as a Major Arterial between Brannan and Market streets in the CMP Network, and is part of the MTS Network and a Neighborhood Network Connection Street.

Tenth Street is a north-south one-way roadway extending from Market Street to Division Street, and forms a one-way couplet with Ninth Street. In the vicinity of the project site, Tenth Street is a four-lane, one-way, southbound roadway with on-street metered parking on both sides of the street (on the east side, beginning south of Stevenson Street). Tenth Street provides access to southbound U.S. 101 via an on-ramp at Tenth and Bryant streets. In the *General Plan*, Tenth Street is designated as a Major Arterial between Market and Brannan streets in the CMP Network. Tenth Street is part of Bicycle Route 25.

Eleventh Street is a north-south roadway extending from Market Street to Division Street and operates in both directions. In the vicinity of the project site, 11th Street has one travel lane in

each direction with on-street metered parking on both sides of the street. In the *General Plan*, 11th Street is designated as a Transit Preferential Street – Secondary Transit Street, and as a Neighborhood Network Connection Street between Market and Mission streets. Eleventh Street is part of Bicycle Route 25.

Twelfth Street is a north-south roadway extending from Market Street to Harrison Street, with a short break in the alignment at South Van Ness Avenue. Twelfth Street has one travel lane in each direction in the project vicinity (between Otis and Market streets) with on-street metered parking available on both sides of the street.

Hayes Street is an east-west roadway that extends between Larkin Street and Golden Gate Park. In the vicinity of the project site, Hayes Street operates one-way westbound between Larkin Street and Van Ness Avenue. Hayes Street has three travel lanes operating in the one-way westbound direction and on-street parking on both sides of the street. There is no parking on the north side of the street between Larkin and Polk streets. During the weekday PM peak period (3:00 and 7:00 PM) the parking lanes have tow-away regulations to provide additional travel lanes. In the *General Plan*, Hayes Street is classified as a Major Arterial between Larkin and Gough streets in the CMP network, and is designated as a Neighborhood Commercial Street.

Fell Street is an east-west roadway that runs between Stanyan and Market streets. It runs one-way westbound between Golden Gate Park and Octavia Street, two-way between Octavia and Gough streets, and one-way eastbound between Gough and Market streets. At Market Street, Fell Street becomes Tenth Street. In the vicinity of the project site, Fell Street has three travel lanes and on-street metered parking on both sides of the street, except during the PM peak period when parking on the south side of the street is converted to an extra travel lane. In the *General Plan*, Fell Street is designated as a Major Arterial in the CMP Network and is part of the MTS Network, a Primary Transit Street – Transit Important, and a Neighborhood Commercial Street.

Hickory Street is a one-way, one-lane alley that runs in the eastbound direction between Webster and Laguna streets and between Octavia Street and Van Ness Avenue. In the vicinity of the proposed project, there is on-street metered parking on the south side of the alley.

Oak Street is an east-west roadway that runs between Van Ness Avenue and Golden Gate Park. West of Franklin Street, Oak Street operates in the eastbound direction only and forms a one-way couplet with Fell Street. For the one-block section between Franklin Street and Van Ness Avenue, Oak Street operates in the westbound direction only. In the vicinity of the project site, Oak Street has one travel lane in the westbound direction with on-street parking on both sides of the street, with front-in angled parking on the north side of the street and parallel parking on the south side. Sidewalk widths along both sides of the street directly adjacent to the project site are 15 feet; west

of Franklin Street, sidewalks are generally narrower at nine feet wide. In the *General Plan*, Oak Street is classified as a Major Arterial in the CMP Network and is part of the MTS Network.

Market Street is an east-west roadway from The Embarcadero to Portola Drive in the Twin Peaks neighborhood. Generally, this roadway has two lanes in each direction and 25- to 35-foot-wide sidewalks. Between Fremont and Castro streets, Market Street has streetcar tracks running in each direction within the center travel lanes, which accommodate Muni's F Market & Wharves historic streetcar. There are bus-only lanes on Market Street between 12th Street/Van Ness Avenue and Fifth Street in the eastbound direction and between Van Ness Avenue and Eighth Street in the westbound direction. Transit stops are located both at the curbside and raised islands; the curbside stops are staggered from the island stops to avoid blockage of traffic circulation. There are Class II bicycle lanes along Market Street between Castro Street and Eighth Street. In the *General Plan*, Market Street is classified as a Major Arterial in the CMP Network, and is part of the MTS Network. It is also designated as a Neighborhood Commercial Street and a Primary Transit Street – Transit Oriented, and is part of the Citywide Pedestrian Network and Bicycle Route 50. On-street parking is not permitted on Market Street in the study area. In the summer and fall of 2015, the San Francisco Municipal Transportation Agency (SFMTA) implemented turn restrictions and transit-only lane extensions as part of the Safer Market Street Project² (with the exception that turn restrictions from northbound Fifth Street onto eastbound Market Street, and from southbound Ellis Street onto westbound Market Street will be implemented following completion of the Central Subway project work in the area). The Safer Market Street Project restricts private vehicle access along a segment of Market Street between Third and Eighth streets to reduce conflicts between private vehicles and other roadway users on a high-injury corridor. Continuous eastbound and westbound transit-only lanes were implemented in this segment to reduce collisions caused by lane changes.

Mission Street is a four-lane arterial that runs east to west between The Embarcadero and John Daly Boulevard in Daly City. In the eastbound direction, Mission Street has a bus-only lane between 11th and Fifth streets that operates on weekdays from 7:00 to 9:00 AM and from 4:00 to 6:00 PM, and between Fifth and Beale streets from 7:00 AM to 6:00 PM. In the westbound direction, Mission Street has a bus-only lane between Main and Fourth streets that operates on weekdays from 7:00 to 6:00 AM and between Fourth and 11th streets from 4:00 to 6:00 PM. On-street, metered parking is available but prohibited on weekdays between 3:00 and 6:00 PM. In the *General Plan*, Mission Street is classified as a Major Arterial in the CMP Network, and is part of

² The Safer Market Street Project will help achieve the City's adopted Vision Zero policy, which aims to eliminate all traffic-related fatalities by 2024. On Market Street, most collisions occur at midblock locations and are caused by vehicles proceeding straight through on Market Street, rather than turning movements at intersections. Available online at <https://www.sfmta.com/projects-planning/projects/safer-market-street>. Accessed August 22, 2016.

the MTS Network. It is also designated as a Neighborhood Commercial Street, a Primary Transit Street – Transit Oriented, and is part of the Citywide Pedestrian Network.

Background Vehicle Miles Traveled in San Francisco and Bay Area

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 (TDM). Typically, low-density development at great distance from other land uses, located in areas with poor access to non-private vehicular modes of travel, generates 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 Vehicle Miles Traveled (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 an 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 summarizing tour VMT to each location would overestimate VMT.^{3,4}

³ 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

For residential development, the regional average daily VMT per capita is 17.2.⁵ For retail development, regional average daily work-related VMT per employee is 14.9. Refer to **Table 4.C.1: Daily Vehicle Miles Traveled**, which includes the transportation analysis zone (TAZ) in which the project site is located, TAZ 588. As shown on **Table 4.C.1**, the current average daily VMT per capita is less than the citywide and regional Bay Area averages for the nine-county San Francisco Bay Area.

Table 4.C.1: Daily Vehicle Miles Traveled

Land Use	Bay Area Regional Average	Citywide Average	Project TAZ 588
Households (residential)	17.2	7.9	3.5
Visitors (retail)	14.9	5.4	8.3

Source: San Francisco Planning Department, 2016

TRANSIT NETWORK

The project site is well served by public transit, with both local and regional service provided in the vicinity. Local transit service is provided by the San Francisco Municipal Railway (Muni) bus routes, which can be used to transfer to other bus routes, cable car lines, the F Market & Wharves historic streetcar line, and Muni Metro light rail lines. Service to and from the East Bay is provided by the San Francisco Bay Area Rapid Transit (BART) system along Market and Mission streets, Alameda-Contra Costa Transit (AC Transit) from the Transbay Terminal, and ferries from the Ferry Building. Service to and from the South Bay and the Peninsula is provided by BART along Market and Mission streets, San Mateo County Transit (SamTrans) from the Transbay Terminal and along Mission Street, and the Peninsula Rail Corridor (Caltrain) from King Street Station at Fourth and Townsend streets. Service to and from the North Bay is provided by Golden Gate Transit (GGT) buses along Van Ness Avenue⁶ and at the Transbay Terminal and ferries from the Ferry Building.

Local Transit

Muni provides transit service within the City and County of San Francisco, including bus routes (diesel, diesel-hybrid electric, and electric trolley) and cable car, light rail, and historic streetcar lines. Muni operates numerous bus routes in the vicinity of the project site, including routes on

locations would be allotted the total tour VMT. A trip-based approach allows all retail-related VMT to be apportioned to retail sites without double-counting.

⁴ San Francisco Planning Department, Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A, March 3, 2016.

⁵ Includes the VMT generated by the households in the development.

⁶ Only alightings are allowed from GGT buses destined to San Francisco from Marin and Sonoma counties. Conversely, only boardings are allowed onto GGT buses destined to Marin and Sonoma counties from San Francisco.

Market Street and on Van Ness Avenue, adjacent to the project site. The project site is located over the Muni Van Ness station; a stairway and escalator serving the station is located within the Market Street sidewalk adjacent to the project site, and an elevator between the street and the station is located on the project site. **Figure 4.C.2: Existing Transit Network Near Project Site** presents the transit service in the vicinity of the project site. The service frequencies and nearest stop location for the routes that operate in the vicinity of the project site are shown in

Table 4.C.2: Muni Service Weekday Frequency in the Project Vicinity.

Table 4.C.2: Muni Service Weekday Frequency in the Project Vicinity

Route ^a	Service Frequency (minutes)		Nearest Stop Location ^a	
	AM (7 to 9 AM)	PM (4 to 6 PM)	Inbound	Outbound
6 Parnassus	10.5	10	Market/Van Ness	Market/Van Ness
7/7R Haight-Noriega	10.5	10	Market/Van Ness	Market/Van Ness
9 San Bruno	12	12	11th/Market	--
9R San Bruno Rapid	12	12	11th/Market	--
14 Mission	6	7.5	Mission/11th	Mission/11th
14R Mission Rapid	9	9	Mission/11th	Mission/11th
21 Hayes	9	10	Oak/Franklin	Fell/Gough
47 Van Ness	10	10	Van Ness/Market	Van Ness/Oak
49 Van Ness-Mission	8	8	Van Ness/Market	Van Ness/Oak
F Market	6.5	6	Market/Van Ness	Market/Van Ness
J Church	9.5	8	Van Ness station	Van Ness station
K Ingleside	9.5	9.5	Van Ness station	Van Ness station
L Taraval	8	7	Van Ness station	Van Ness station
M Ocean View	8.5	8.5	Van Ness station	Van Ness station
N Judah	7.5	7	Van Ness station	Van Ness station

Note:

^a Inbound travel is generally toward the greater downtown area while outbound travel is generally away from the greater downtown area.

Sources: San Francisco Municipal Transportation Agency, 2013; LCW Consulting, 2016

Regional Transit

BART operates regional rail transit service in the metropolitan Bay Area. BART currently operates five lines: Pittsburg/Bay Point to the San Francisco International Airport, Millbrae, Fremont to Daly City, Richmond to Daly City-Millbrae, Fremont to Richmond, and Dublin/Pleasanton to Daly City. Within San Francisco, BART operates underground and provides service under Market and Mission streets. During the weekday PM peak period, headways are generally 5 to 15 minutes for each line. The nearest BART station to the proposed project is the BART/Muni Civic Center station (about 0.3 mile east of the project site).

Caltrain provides rail passenger service on the Peninsula between Gilroy and San Francisco. The San Francisco terminal is located at Fourth and Townsend streets, in the South of Market area. Caltrain operates a combination of “baby bullet,” express, and local service. Headways during the



Source: LCW Consulting, SFMTA (2016)


 PROJECT SITE
 MUNI ROUTE
 SAMTRANS, GOLDEN GATE TRANSIT

FIGURE 4.C.2: EXISTING TRANSIT NETWORK NEAR PROJECT SITE

evening peak period are approximately 5 to 30 minutes. The nearest Caltrain station to the project site is at Fourth Street at Townsend Street (about 1.3 miles east of the project site, and accessed via Muni route 47 Van Ness).

SamTrans, operated by the San Mateo County Transit District, provides bus service between San Mateo County and San Francisco. SamTrans operates three bus routes that serve San Francisco: the KX, 292, and 397 routes. In general, SamTrans service to downtown San Francisco operates along Mission Street (about one block, or a 0.15 mile south of the project site) to the Transbay Terminal. SamTrans cannot pick up northbound passengers at San Francisco stops, or drop off southbound passengers boarding in San Francisco within San Francisco.

Golden Gate Transit, operated by the Golden Gate Bridge, Highway, and Transportation District (GGBHTD), provides bus service between the North Bay (Marin and Sonoma counties) and San Francisco. Golden Gate Transit operates 18 commuter bus routes and 5 basic bus routes into San Francisco, several of which operate along Van Ness Avenue, north of McAllister Street. Basic bus routes operate at regular intervals of 30 to 90 minutes depending on the time and day of week. Commuter and ferry feeder bus routes operate at more frequent intervals in the mornings and evenings. GGBHTD also operates ferry service between the North Bay and San Francisco. Ferries operate between Larkspur and San Francisco, and between Sausalito and San Francisco all day, seven days a week. The San Francisco terminal is located at the Ferry Building along The Embarcadero near Market Street (about 2.0 miles northeast of the project site, accessed via multiple Market Street routes). Golden Gate Transit cannot pick up southbound passengers at San Francisco stops, or drop off northbound passengers boarding in San Francisco within San Francisco.

AC Transit is the primary bus operator for the East Bay, including Alameda and western Contra Costa counties. AC Transit operates 37 routes between the East Bay and San Francisco, all of which terminate at the Transbay Terminal (about 1.8 miles northeast of the project site, accessed via the 7/7R Haight-Noriega and Haight-Noriega Rapid). Most transbay service is peak-hour and peak-direction (to San Francisco during the AM peak period and from San Francisco during the PM peak period), with headways of 15 to 30 minutes per route.

The **Water Emergency Transportation Authority** (WETA) was charged in 2008 with creating and adopting a Transition Plan for Bay Area ferry service in Senate Bill 1093. As of March 2016, WETA is responsible for operating San Francisco Bay Ferry service that serves Oakland (Jack London Square), Alameda (Harbor Bay and Main Street/Gateway), San Francisco (Downtown Ferry Building and Pier 41), South San Francisco (Oyster Point Marina), and Vallejo. Seasonal service is also provided to AT&T Park.

Private Shuttles

There are a number of private shuttle services within San Francisco that make stops at Muni bus stops and passenger loading/unloading zones in the vicinity of the project site. In addition to these shuttles, several commuter shuttles between San Francisco and the South Bay (e.g., Facebook, Google) operate on streets in the project vicinity; these private shuttles are part of the recently approved Commuter Shuttle Program.⁷

Capacity Utilization

Local Transit

Capacity utilization relates the number of passengers per transit vehicle to the design capacity of the vehicle. In contrast to other transit operators, Muni has established a capacity utilization service standard of 85 percent, which includes seated and standing passenger capacity (with standing passengers representing somewhere between 30 to 80 percent of seated passengers, depending upon the specific configuration of the transit vehicles).⁸

Table 4.C.3: Existing Muni Ridership and Capacity Utilization – Weekday AM and PM Peak Hours presents the ridership and capacity utilization at the maximum load point (MLP) for the nearby routes during the weekday PM peak hour. For the east-west bus routes the MLPs are located to the east of the project site (generally at or east of Van Ness Avenue), and for the north-south bus routes the MLP is located to the north of the project site. The MLP for the J Church and N Judah lines is at the intersection of Duboce/Church, while the MLP for the K Ingleside, L Taraval, and M Ocean View routes is at the Van Ness station. As indicated in **Table 4.C.3**, during the AM peak hour, capacity utilization for all nearby routes is less than Muni's 85 percent capacity utilization standard for most bus routes, with the exception of the 7/7R Haight-Noriega, which currently exceeds the 85 percent capacity utilization standard in the inbound direction of travel (i.e., away towards downtown). In addition, the five Muni light rail lines that stop at the Muni Van Ness station (i.e., the J Church, K Ingleside, L Taraval, M Ocean View, and N Judah lines) currently exceed the 85 percent capacity utilization standard in the inbound direction. During the PM peak hour, capacity utilization for all routes is less than Muni's 85 percent capacity utilization standard, with the exception of the K Ingleside and the N Judah, which

⁷ The SFMTA Commuter Shuttle Program was approved by the SFMTA Board of Directors in November 2015, and increased fees as well as new regulations regarding restrictions on larger shuttle buses from smaller streets, greener fleets to reduce emissions, and rules to prevent labor disruptions took effect on February 1, 2016. Information and updates on the Commuter Shuttle Program are available online at <https://www.sfmta.com/news/project-updates/sfmta-board-directors-approves-commuter-shuttle-program>. Accessed August 22, 2016.

⁸ The average load during any 15-minute time interval should not exceed 119 passengers for a light rail vehicle, 94 passenger for a 60-foot motor or trolley coach, 63 passengers for a 40-foot motor or trolley coach, and 45 passengers for a 30-foot motor coach (see *SF Guidelines 2002*, p. F-6).

currently exceed the 85 percent capacity utilization standard in the outbound direction of travel (i.e., away from downtown).

Table 4.C.3: Existing Muni Ridership and Capacity Utilization – Weekday AM and PM Peak Hours

Route	Inbound (towards downtown)		Outbound (away from downtown)	
	Ridership	Capacity Utilization ^a	Ridership	Capacity Utilization
AM Peak Hour				
6 Parnassus	248	65.1%	108	28.0%
7/7R Haight-Noriega	336	88.9%	138	36.0%
9 San Bruno	235	74.0%	185	58.0%
9R San Bruno Rapid	230	73.0%	160	50.0%
14 Mission	293	61.9%	158	22.0%
14R Mission Rapid	480	76.6%	227	36.0%
21 Hayes	267	63.5%	120	28.0%
47 Van Ness	270	71.4%	283	74.0%
49 Van Ness-Mission	375	53.2%	328	45.0%
F Market	465	66.0%	210	30.0%
J Church	754	94.0%	139	17.0%
K Ingleside	833	104.0%	350	44.0%
L Taraval	1,678	93.0%	245	13.0%
M Ocean View	1,433	90.0%	388	24.0%
N Judah	2,387	117.0%	530	26.0%
PM Peak Hour				
6 Parnassus	131	36.4%	216	57.1%
7/7R Haight-Noriega	222	58.7%	282	74.6%
9 San Bruno	180	57.1%	214	67.9%
9R San Bruno Rapid	175	55.6%	225	71.4%
14 Mission	233	49.3%	285	37.9%
14R Mission Rapid	280	44.7%	467	74.5%
21 Hayes	125	36.3%	276	73.0%
47 Van Ness	252	66.7%	222	58.7%
49 Van Ness-Mission	345	48.9%	338	47.9%
F Market	377	53.9%	555	79.3%
J Church	209	26.4%	539	68.0%
K Ingleside	585	73.8%	782	98.6%
L Taraval	455	28.7%	1,181	74.4%
M Ocean View	470	29.6%	1,032	65.0%
N Judah	843	38.4%	1,908	86.8%

Note:

^a **Bold** indicates capacity utilization greater than the 85 percent capacity utilization standard.

Source: San Francisco Planning Department Memorandum – Transit Data for Transportation Impact Studies, May 2015

Muni Downtown Analysis

The availability of Muni service capacity was analyzed in terms of a series of screenlines. The concept of screenlines is used to describe the magnitude of travel to or from the greater downtown area, and to compare estimated transit volumes to available capacities. Screenlines are hypothetical lines that would be crossed by persons traveling between downtown and its vicinity

and other parts of San Francisco and the region. Four screenlines have been established in San Francisco to analyze potential impacts of projects on Muni service: northeast, northwest, southwest, and southeast, with sub-corridors within each screenline. The bus and light rail lines used in this screenline analysis are considered the major commute routes from the downtown area. Other bus lines, such as “community connector”⁹ routes and routes with greater than ten-minute headways are not included, due to their generally lower ridership.

As noted above, Muni’s established capacity utilization standard for peak period operations is 85 percent. The 85 percent utilization is of seated and standing loads, so at 85 percent all seats are taken and there are many standees. Muni downtown screenlines and corridors at or near 85 percent capacity operate under noticeably crowded conditions with many standees. Because each screenline and most corridors include multiple lines, each with several vehicles during the peak hour, some individual vehicles may operate at or above 85 percent of capacity and are extremely crowded, while others operate under less crowded conditions. Moreover, the extent of crowding is exacerbated whenever target headways are not met through either missed runs and/or bunching in service. Thus, in common with other types of transportation operations such as roadways and parking facilities, transit operators may experience substantial problems in service delivery even when operating at less than 85 percent of capacity.

Table 4.C.4: Muni Downtown Screenlines for Existing Conditions – Weekday AM and PM Peak Hours presents the existing transit passenger load, capacity, and capacity utilization at each screenline and corridor during the weekday AM and PM peak hours. The capacity utilization calculation in the inbound direction uses AM data and in the outbound direction PM data to align with the peak directions of travel and patronage loads for the Muni system to or from the downtown area during those periods. As shown in **Table 4.C.4**, the Southwest screenline operates above the 85 percent capacity utilization standard in the AM peak, and all other screenlines are currently operating below the 85 percent capacity utilization standard in the AM and PM and could accommodate additional passengers. During the AM peak hour the Subway lines corridor of the Southwest screenline (at 102.0 percent capacity utilization), operate at more than the 85 percent capacity utilization standard. In addition, during the PM peak hour the Fulton/Hayes corridor of the Northwest screenline (at 89.5 percent capacity utilization), and the Third Street corridor of the Southeast screenline (at 98.6 percent capacity utilization) currently operate at more than the 85 percent capacity utilization standard.

⁹ The category of community connector routes includes lightly used bus routes that circulate through San Francisco’s hillside residential neighborhoods to fill in gaps in coverage and connect passengers to the core network.

Table 4.C.4: Muni Downtown Screenlines for Existing Conditions – Weekday AM and PM Peak Hours

Screenline/ Corridor	AM Peak Hour (Inbound)			PM Peak Hour (Outbound)		
	Hourly Ridership	Hourly Capacity	Capacity Utilization	Hourly Ridership	Hourly Capacity	Capacity Utilization
Northeast						
Kearny/Stockton	2,211	3,050	72.5%	2,245	3,327	67.5%
Other	538	1,141	47.2%	683	1,078	63.4%
Subtotal	2,749	4,191	65.6%	2,928	4,405	66.5%
Northwest						
Geary	1,821	2,490	73.2%	1,964	2,623	74.9%
California	1,610	2,010	80.1%	1,322	1,752	75.5%
Sutter/Clement	480	630	76.2%	425	630	67.5%
Fulton/Hayes	1,277	1,680	76.0%	1,184	1,323	89.5%
Balboa	758	1,019	74.4%	625	974	64.2%
Subtotal	5,946	7,828	76.0%	5,520	7,302	75.8%
Southeast						
Third	350	793	44.1%	782	793	98.6%
Mission	1,643	2,509	65.5%	1,407	2,601	54.1%
San Bruno/Bayshore	1,689	2,134	79.1%	1,536	2,134	72.0%
Other	1,466	1,756	83.5%	1,084	1,675	64.7%
Subtotal	5,147	7,193	71.6%	4,809	7,203	66.8%
Southwest						
Subway	6,330	6,205	102.0%	4,904	6,164	79.6%
Haight/Noriega	1,121	1,554	72.1%	977	1,554	62.9%
Other	465	700	66.5%	555	700	79.3%
Subtotal	7,916	8,459	93.6%	6,436	8,418	76.5%
Total	21,758	27,671	78.6%	19,693	27,328	72.1%

Sources: San Francisco Planning Department Memorandum – Transit Data for Transportation Impact Studies, May 2015; LCW Consulting 2016.

In addition to the Muni downtown screenlines, the 15 Muni routes operating in the vicinity of the project site were grouped into two corridors and the capacity utilization was determined. The Muni routes included in each group are as follows:

- North/South Corridor: 47 Van Ness and 49 Van Ness-Mission
- East/West Corridor: 6 Parnassus, 9 San Bruno, 9R San Bruno Rapid, 14 Mission, 14R Mission Rapid, 21 Hayes, 7/7R Haight-Noriega/Haight-Noriega Rapid, F Market, J Church, K Ingleside, L Taraval, M Ocean View, and the N Judah

Table 4.C.5: Muni Corridor Analysis for Existing Conditions – Weekday AM and PM Peak Hours presents the ridership and capacity utilization at the MLP for the north/south and east/west corridors during the weekday AM and PM peak hours. During the AM peak hour, the capacity utilization of the eastbound direction of the east-west corridor (i.e., in the inbound direction towards downtown) currently exceeds the 85 percent capacity utilization standard (i.e., at 90.9 percent capacity utilization). As noted above, during the AM peak hour all five Muni light rail lines that stop at the Muni Van Ness station (i.e., the J Church, K Ingleside, L Taraval, M Ocean View, and N Judah lines) currently exceed the 85 percent capacity utilization standard

in the inbound direction. During the PM peak hour, the corridors currently operate below the 85 percent capacity utilization standard, and have available capacity to accommodate additional passengers.

Table 4.C.5: Muni Corridor Analysis for Existing Conditions – Weekday AM and PM Peak Hours

Corridor/Direction of Travel	Hourly Ridership	Hourly Capacity	Capacity Utilization
AM Peak Hour			
North/South Corridor^a			
Northbound (inbound)	605	1,083	55.9%
Southbound (outbound)	645	1,083	59.6%
East/West Corridor^b			
Eastbound (inbound)	9,637	10,604	90.9%
Westbound (outbound)	2,958	10,836	27.3%
PM Peak Hour			
North/South Corridor^a			
Northbound (inbound)	560	1,083	51.7%
Southbound (outbound)	597	1,083	55.1%
East/West Corridor^b			
Eastbound (inbound)	4,285	10,469	40.9%
Westbound (outbound)	4,962	10,800	73.7%

Notes:

^a The North/South corridor includes the 47 Van Ness and the 49 Van Ness-Mission.

^b The East/West corridor includes the 6 Parnassus, 9 San Bruno, 9R San Bruno Rapid, 14 Mission, 14R Mission Rapid, 21 Hayes, 7/7R Haight-Noriega/Haight-Noriega Rapid, F Market, J Church, K Ingleside, L Taraval, M Ocean View, and N Judah.

Sources: San Francisco Planning Department, 2015; LCW Consulting, 2016

Regional Transit Screenline Analysis

Regional transit operations are evaluated at three regional screenlines (East Bay, North Bay, and South Bay) for the peak direction of travel and patronage loads, which correspond with the inbound direction (i.e., towards downtown) during the AM peak hour, and in the outbound direction (i.e., from downtown San Francisco to the region).

Table 4.C.6: Regional Transit Screenlines for Existing Conditions – Weekday AM and PM Peak Hours presents the existing weekday AM and PM peak hour ridership, capacity, and utilization information for each regional screenline. As indicated on **Table 4.C.6**, with the exception of BART, all regional transit providers operate at less than their load factor standards

during the AM and PM peak hours, which indicates that seats are generally available. BART ridership capacity utilization in the inbound direction from the East Bay during the AM peak hour (i.e., towards downtown San Francisco) and in the outbound direction to the East Bay during the PM peak hour (i.e., leaving downtown San Francisco) exceed the 100 percent capacity utilization standard, which indicates that all seats are full and many passengers are standing. As shown on **Table 4.C.6**, the overall East Bay screenline during the AM peak hour also exceed the 100 percent capacity utilization standard.

Table 4.C.6: Regional Transit Screenlines for Existing Conditions – Weekday AM and PM Peak Hours

Screenline/ Operator	AM Peak Hour (Inbound)			PM Peak Hour (Outbound)		
	Hourly Ridership	Hourly Capacity	Capacity Utilization	Hourly Ridership	Hourly Capacity	Capacity Utilization
East Bay						
BART	25,399	23,256	109.2%	24,488	22,784	107.5%
AC Transit	1,568	2,829	55.4%	2,256	3,926	57.5%
Ferry	810	1,170	69.2%	805	1,615	49.8%
Subtotal	27,777	27,255	101.9%	27,549	28,325	97.3%
North Bay						
GGT buses	1,330	2,543	52.3%	1,384	2,817	49.1%
Ferry	1,082	1,959	55.2%	968	1,959	49.4%
Subtotal	2,412	4,502	53.6%	2,352	4,776	49.2%
South Bay						
BART	14,150	19,367	73.1%	13,500	18,900	71.4%
Caltrain	2,171	3,100	70.0%	2,377	3,100	76.7%
SamTrans	255	520	49.0%	141	320	44.1%
Subtotal	16,576	22,987	72.1%	16,018	22,320	71.8%
Total	46,765	54,744	85.4%	45,919	55,421	82.9%

Sources: San Francisco Planning Department Memoranda – Transit Data for Transportation Impact Studies, May 2015 and Updated BART Regional Screenlines, October 2016.

PEDESTRIAN CONDITIONS

Pedestrian Network

Sidewalks adjacent to the project site are 15 feet wide on Oak Street and Van Ness Avenue, and between 15 and 25 feet wide on Market Street. The existing sidewalk widths adjacent to the site currently meet the minimum and recommended sidewalk widths specified in the *Better Streets Plan* (minimum of 12 feet, and recommended width of 15 feet for a commercial thoroughfare).¹⁰ However, a stairway and escalator for the Muni Van Ness station is located on the section of

¹⁰ The *San Francisco Better Streets Plan*, which was adopted in 2010, creates a unified set of standards, guidelines, and implementation strategies to govern how the City designs, builds, and maintains its pedestrian environment. A key goal of the *Better Streets Plan* is to prioritize the needs of walking, bicycling, transit use, and the use of streets as public spaces for social interaction and community life, following the *San Francisco General Plan*, Transit First Policy, and Better Streets Policy.

Market Street where the sidewalk is 25 feet wide, which reduces the width of walkway area at this location to 9 feet.

Pedestrian crosswalks and pedestrian signals are provided at the signalized intersections in the project vicinity. At the intersection of Franklin/Oak, continental crosswalks¹¹ are provided on the east, west, and south legs of the intersection; however, the crosswalk on the north leg is closed to facilitate the left turn movement (i.e., three left turn lanes) from Oak Street eastbound onto Franklin Street northbound. .

Because Market Street runs diagonally, and because it is the boundary of two street grids, many intersections along Market Street are five-legged or six-legged intersections, or have the southern leg of the intersection offset from the northern leg. This results in greater crossing distances for pedestrians than at four-legged intersections.

A qualitative evaluation of existing pedestrian conditions in the vicinity of the project site was conducted during field visits to the site in the weekday midday and PM peak periods in November 2014 and February 2015. Both crosswalks and sidewalks were observed to be operating at generally unconstrained conditions, with pedestrians moving at normal walking speeds and with freedom to bypass other pedestrians.

Sidewalk Level of Service Analysis

Pedestrian conditions were quantitatively assessed adjacent to the project site on Market Street between Van Ness Avenue and the entrance to the Muni Van Ness station (i.e., at the most constrained location adjacent to the project site) based on pedestrian counts conducted on Wednesday, November 12, 2014. There were about 500 pedestrians at this location during the midday peak hour, and about 760 pedestrians during the PM peak hour. Operating characteristics of the pedestrian sidewalk conditions on Market Street were analyzed using the *2000 Highway Capacity Manual (HCM 2000)* methodology. Sidewalk operating conditions are measured by average pedestrian flow rate, which is defined as the average number of pedestrians that pass a specific point on the sidewalk during a certain period (pedestrians per minute per foot [p/m/f]). The width of the sidewalk at this point is considered the “effective width,” which accounts for

¹¹ Crosswalks with a continental design have parallel markings that are the most visible to drivers. Use of continental design for crosswalk marking also improves crosswalk detection for people with low vision and cognitive impairment.

reduction in amount of sidewalk available for travel due to street furniture and the side of buildings. The level of service for sidewalks is presented for “platoon” conditions, which represents the conditions when pedestrians are walking together in a group. Pedestrian level of service conditions were calculated at the most restrictive location adjacent to the project site, and account for the Muni station stairway and escalator.^{12,13}

Table 4.C.7: Existing Sidewalk Pedestrian Level of Service - Market Street Adjacent to the Project Site - Weekday Midday and PM Peak Hours presents the pedestrian analysis results for the weekday midday, and PM peak hour conditions at the most constrained location on Market Street adjacent to the project site (i.e., between the property line and the Muni Van Ness station stairway/escalator). At this location, the pedestrian level of service is LOS B during the midday peak hour, and LOS C during the PM peak hour.

Table 4.C.7: Existing Sidewalk Pedestrian Level of Service – Market Street Adjacent to the Project Site – Weekday Midday and PM Peak Hours

Analysis Period	Pedestrians per Hour	Level of Service	
		Measure of Effectiveness (p/m/f) ^a	LOS
Weekday Midday Peak Hour	487	2.0	B
Weekday PM Peak Hour	758	3.3	C

Note:

^a p/m/f = pedestrians per minute per foot.

Source: LCW Consulting, 2016

BICYCLE CONDITIONS

In the vicinity of the project site, McAllister, Post, Sutter, Polk, Page, and Market streets are designated Citywide Bicycle Routes. These routes are interconnected to the Citywide Bicycle Network and provide access to and from the study area from locations throughout the City.

Figure 4.C.3: Bicycle Route Network in Study Area presents the bicycle route network in the vicinity of the project site.

¹² For example, at a sidewalk study location where there are trees located within two feet from the curb in one location, and a bus shelter within five feet from the curb in another location, the pedestrian analysis would be conducted at the location of the bus shelter.

¹³ With the HCM methodology, an upper limit for acceptable conditions is LOS D, which equals approximately 15 p/m/f for walkways/sidewalks. LOS E or LOS F would represent congested conditions. At LOS E normal walking gaits are frequently adjusted due to congested conditions and independent movements are difficult, and at LOS F walking speeds are severely restricted.

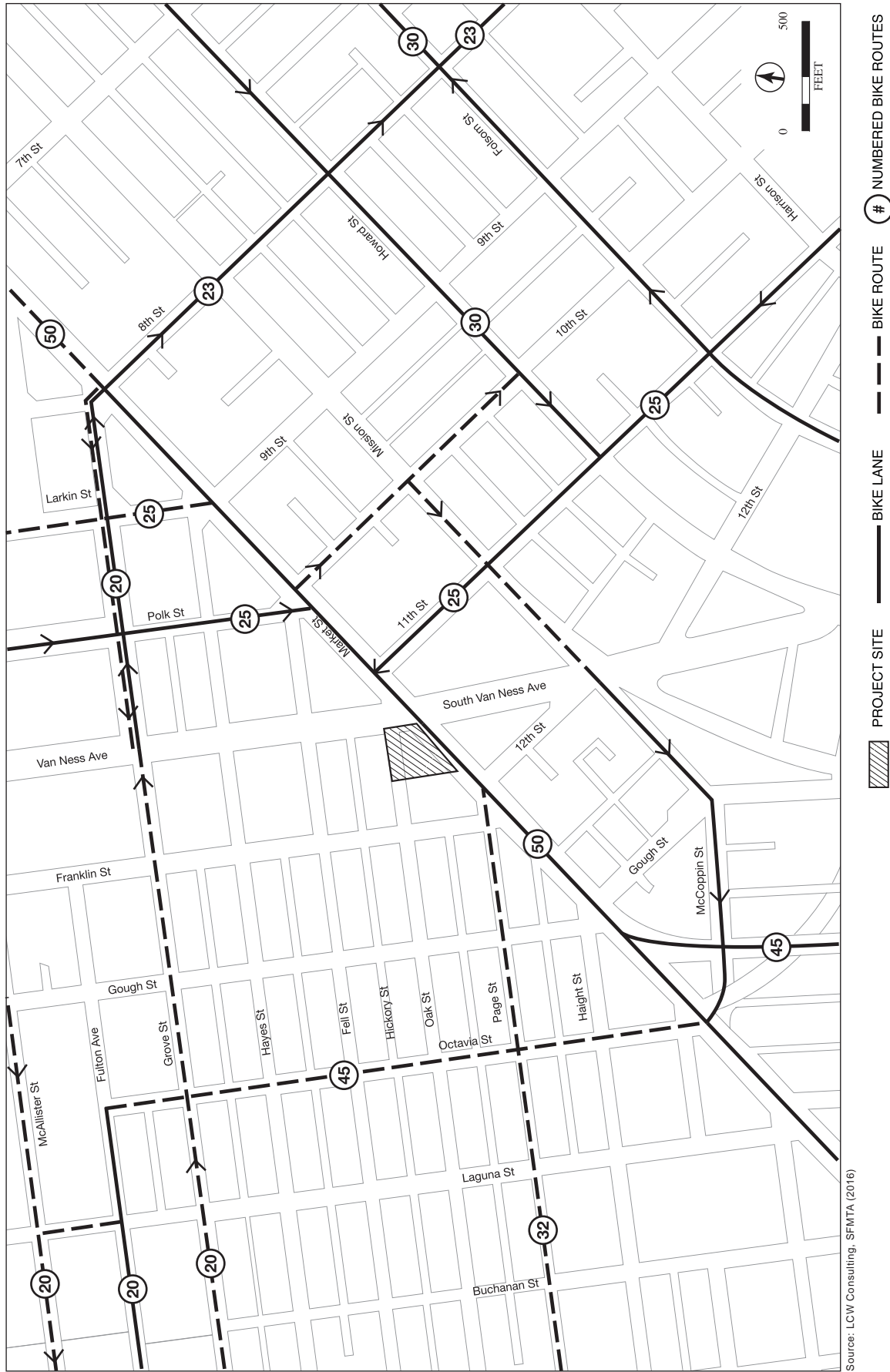


FIGURE 4.C.3: BICYCLE ROUTE NETWORK IN STUDY AREA

Bikeways are typically classified as Class I, Class II, or Class III facilities.¹⁴ Class I bikeways are bike paths with exclusive right-of-way for use by bicyclists or pedestrians. Class II bikeways are bike lanes striped with the paved areas of roadways and established for the preferential use of bicycles, while Class III bikeways are signed bike routes that allow bicycles to share travel lanes with vehicles.

The following bicycle routes are in the vicinity of the project site:

- Bicycle Route 20 runs westbound along McAllister Street as a Class III facility, and on Fulton Street in both directions as a Class II facility. On Grove Street west of Van Ness Avenue, Bicycle Route 20 runs eastbound on Grove Street between Octavia Street and Van Ness Avenue as a Class III facility, and eastbound and westbound between Van Ness Avenue and Market Street as a Class II facility.
- Bicycle Route 25 runs northbound and southbound along Polk Street between Beach and Market streets with segments running as Class II or Class III facilities. A bicycle lane (Class II facility) is provided in the southbound direction between Post and Market streets, in the southbound direction between Beach and Lombard streets, and in both directions between Union and Lombard streets. A signed route (Class III facility) is provided on the remaining segments of Polk Street.

The *San Francisco Bicycle Plan* implemented bicycle lanes on Polk Street between Market and McAllister streets (Project 3-4). In addition, SFMTA efforts for bicycle improvements on Polk Street between Union and McAllister streets are currently underway (see the discussion of the Polk Street Improvement Project, p. 4.C.75).

- Bicycle Route 32 runs eastbound and westbound on Page Street between Market Street and Stanyan Street as a Class III facility (signed route only) in both directions of travel.
- Bicycle Route 50 runs eastbound and westbound on Market Street between The Embarcadero and Castro Street as a Class II or Class III facility. In the vicinity of the project site, it runs as a Class II facility. Adjacent to the project site, the bicycle lane is located adjacent to the curb, and is protected with a narrow striped buffer and flexible bollards.

There are no on-street bicycle racks on the sidewalks adjacent to the project site on Oak or Market streets, and there is one bicycle rack on Van Ness Avenue between Oak and Market streets. Six bicycle racks are provided on the north sidewalk of Oak Street between Franklin Street and Van Ness Avenue. Additionally, there are two Bay Area Bike Share stations in the project vicinity: one on the east side of South Van Ness Avenue south of Market Street that accommodates about 20 bicycles/docks, and another on the south side of Market Street east of Tenth Street that accommodates about 30 bicycles/docks.

¹⁴ Bicycle facilities are defined in the California Streets and Highway Code Section 890.4.

Bicycle facilities in the project vicinity are well utilized. In 2013, the SFMTA counted about 1,400 bicyclists on Market Street at Valencia Street during the two-hour period between 4:30 and 6:30 PM.¹⁵ The 2013 count at this location is about 7 percent higher than counts conducted in 2011.

LOADING CONDITIONS

On Oak Street there are four metered commercial loading spaces adjacent to the project site. These spaces are in effect Monday through Friday between 7 AM and 6 PM. There are no other commercial loading spaces on Oak Street between Franklin Street and Van Ness Avenue on either side of the street.

On Market Street adjacent to the project site there is a recessed bay that extends from approximately 130 feet west of the project site property line at Van Ness Avenue to the intersection of Market Street at 12th Street (i.e., just west of the planned 1554 Market Street building). West of 12th Street the curb lane on westbound Market Street transitions into a travel lane to access Page Street at Franklin Street. The recessed bay is about 130 feet in length, has a “No Standing Except Trucks with at Least 6 Wheels, 30 Minutes at All Times” restriction, and is able to accommodate about three trucks.

On the east side of Franklin Street between Page/Market and Oak streets there are two metered commercial loading spaces that are in effect Monday through Saturday, between 7 AM and 6 PM. In addition there is a passenger loading/unloading zone (about 24 feet in length) on the east side of the street that is in effect every day between 7 AM and 10 PM.

During field observations, the metered commercial loading spaces on Oak and Franklin streets were generally occupied, while no trucks were observed within the recessed bay on Market Street.

EMERGENCY VEHICLE ACCESS

The project site has frontages on Market Street, Oak Street, and Van Ness Avenue. Emergency vehicle access to the project site is primarily from Oak Street, which has one westbound travel lane. The nearest San Francisco Fire Department (SFFD) station is Station 36 at 109 Oak Street between Franklin and Gough streets, about one block west of the project site. Station 36 is interconnected with adjacent traffic signals at Franklin Street and at Gough Street to facilitate emergency vehicle access from the station in both directions (i.e., to travel eastbound against traffic flow on Oak Street to access Gough Street, and to travel eastbound on Oak Street to Franklin Street). Currently the one-block segment of Oak Street between Franklin Street and Van

¹⁵ SFMTA, 2011 Bicycle Count Report, December 2011.

Ness Avenue is used by fire trucks from Station 36 to access Van Ness Avenue southbound or Market Street eastbound.

PARKING CONDITIONS

The existing parking conditions were examined within a parking study area generally bounded by Hayes, Larkin/Ninth, Mission, and Gough streets (see **Figure 4.C.1** on p. 4.C.3). Parking occupancy conditions were assessed for the weekday midday (1:00 to 3:00 PM) and evening (7:00 to 9:00 PM) periods.

On-Street Parking Conditions

On-street parking conditions adjacent to the project site are as follows:

- On-street parking is not permitted on Van Ness Avenue or on Market Street.
- On the south side of Oak Street between Franklin Street and Van Ness Avenue there are five standard metered parking spaces (parallel), four commercial loading spaces, and two 30-minute metered parking spaces. In addition, there are four motorcycle spaces.
- On the north side of Oak Street between Franklin Street and Van Ness Avenue there are 24 diagonal metered parking spaces, one diagonal American with Disabilities Act (ADA) accessible space, four diagonal passenger loading/unloading spaces, and three motorcycle spaces.

On Franklin Street between Oak and Page/Market streets, there are 16 metered parking spaces (six on the east side and ten on the west side of the street). The six on-street parking spaces on the east side of Franklin Street include one ADA parking space and two metered commercial loading spaces.

In general, on-street parking in the vicinity of the project site is short-term metered standard parking spaces and commercial vehicle loading spaces. On some streets, such as Gough and Franklin streets, on-street parking is restricted during the AM and/or PM peak periods (i.e., tow-away regulations) to provide for additional travel lane capacity. Residential Permit Parking (RPP) regulations generally restrict on-street parking to a time-limited period, but vary on the days of the week and time of day that the regulations are in effect.¹⁶ North of the project site and north of Hayes Street, there is an Area “R” RPP regulation that restricts on-street parking, unless an RPP “R” permit is displayed, in which case no time limit is enforced. West of Franklin Street and

¹⁶ The preferential residential parking system (i.e., the Residential Permit Parking program) was established in 1976 to preserve neighborhood living within a major urban center. The main goal of the program is to provide more parking spaces for residents by discouraging long-term parking by people who do not live in the area. Local regulations regarding the establishment of permit areas and requirements for permits can be found in the San Francisco Transportation Code, Division II, Article 900. Available online at <https://law.resource.org/pub/us/code/city/ca/SanFrancisco/0-snapshots/S-44/Transportation.html>. Accessed July 22, 2015.

north of Hayes Street, Area “R” extends north to Geary Boulevard, and west to Webster Street. West of the project site generally west of Gough Street, there is an Area “S” RPP regulation. Area “S” extends west of Gough and Valencia streets generally between Hayes and 24th streets. There are no RPP regulations in the vicinity to the east of the project site.

Off-Street Parking Conditions

Table 4.C.8: Off-Street Public Parking Supply and Utilization - Weekday Midday and Evening Conditions presents the total parking supply for the ten public parking facilities within the study area, and the midday and evening parking occupancies. Overall, there are about 1,390 off-street parking spaces within these facilities, with an average occupancy of about 79 percent during the weekday midday and about 46 percent during the weekday evening period.

Table 4.C.8: Off-Street Public Parking Supply and Utilization – Weekday Midday and Evening Conditions

Facility	Supply	Occupancy ^a	
		Midday	Evening
1. One Polk (garage)	133	100%	74%
2. Fox Plaza (garage)	400	84%	56%
3. Market Square (garage) ^b	350	81%	--
4. Franklin & Oak NE corner (lot)	43	72%	21%
5. Franklin & Oak SE corner (lot)	74	62%	28%
6. Oak St & Van Ness Avenue (lot, project site)	30	147% ^c	3%
7. Franklin & Page NW corner (lot)	50	46%	24%
8. Brady between Market & Mission (lot)	110	77%	28%
9. Market between 12 th & Brady (lot)	68	65%	29%
10. Mission/South Van Ness NE corner (garage) ^b	130	56%	--
Total	1,388	79%	46%

Notes:

^a Midday period between 1 and 3 PM, and evening period between 7 and 9 PM.

^b Facilities close at 7 PM.

^c Parking occupancy of more than 100 percent indicates that more vehicles than the striped number of self-park spaces were observed, and generally represent valet operations at the facility.

Source: LCW Consulting, 2016

In addition to these public off-street facilities, the SFMTA Performing Arts Garage is located on Grove Street between Franklin and Gough streets (about 0.2 mile north of the project block). This garage, which serves the cultural and civic institutions in the area, contains about 600 parking spaces. It is open Monday through Friday between 6 AM and midnight, and closed on Saturdays and Sundays unless an event is scheduled. On non-event weekdays, this garage generally has spaces available during the day (e.g., midday on February 2, 2016, the garage was 82 percent occupied).

REGULATORY FRAMEWORK

CEQA Section 21099(b)(1) (Senate Bill 743)

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 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 recommending that transportation impacts for projects be measured using a VMT metric.¹⁷ On March 3, 2016, based on compelling evidence in that document and on the City’s independent review of the literature on LOS and VMT, 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 impacts on non-automobile modes of travel such as riding transit, walking and bicycling.)

TRANSIT FIRST POLICY

In 1998, the San Francisco voters amended the City Charter (Charter Article 8A, Section 8A.115) to include a Transit First Policy, which was first articulated as a City priority policy by the Board of Supervisors in 1973. The Transit First Policy is a set of principles that underscore the City’s commitment to give priority to travel by transit, bicycle, and foot over the private automobile. These principles are embodied in the policies and objectives of the Transportation Element of the *General Plan*. All City boards, commissions, and departments are required, by law, to implement transit first principles in conducting City affairs.

Vision Zero Policy

Vision Zero is San Francisco’s road safety policy.¹⁸ The City adopted Vision Zero as a policy in 2014, committing to build better and safer streets, educate the public on traffic safety, enforce traffic laws, and adopt policy changes that save lives. The goal is to create a culture that

¹⁷ OPR, *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, Implementing Senate Bill 743* (Steinberg, 2013), January 20, 2016.

¹⁸ Information on Vision Zero available at: <http://visionzerosf.org/about/what-is-vision-zero/>.

prioritizes traffic safety and to ensure that mistakes on roadways do not result in serious injuries or death. The result of this collaborative, citywide effort will be safer, more livable streets as San Francisco works to eliminate traffic fatalities by 2024.

SAN FRANCISCO GENERAL PLAN

The Transportation Element of the *General Plan* is composed of objectives and policies that relate to the eight aspects of the citywide transportation system: General Regional Transportation, Congestion Management, Vehicle Circulation, Transit, Pedestrian, Bicycles, Citywide Parking, and Goods Management. The Transportation Element references San Francisco's Transit First Policy in its introduction, and contains objectives and policies that are directly pertinent to consideration of the proposed project, including objectives related to locating development near transit facilities, encouraging transit use, and traffic signal timing to emphasize transit, pedestrian, and bicycle traffic as part of a balanced multimodal transportation system. The *General Plan* also emphasizes alternative transportation through the positioning of building entrances, making improvements to the pedestrian environment, and providing safe bicycle parking facilities.

SAN FRANCISCO BICYCLE PLAN

The *San Francisco Bicycle Plan (Bicycle Plan)* describes a City program to provide the safe and attractive environment needed to promote bicycling as a transportation mode. The *Bicycle Plan* identifies the citywide bicycle route network and establishes the level of treatment (i.e., Class I, Class II, or Class III facility) on each route. The *Bicycle Plan* also identifies near-term improvements that could be implemented within the next five years, as well as policy goals, objectives, and actions to support these improvements. It also includes long-term improvements, and minor improvements that would be implemented to facilitate bicycling in San Francisco.

SAN FRANCISCO BETTER STREETS PLAN

The *San Francisco Better Streets Plan (Better Streets Plan)* was adopted in 2010 and creates a unified set of standards, guidelines, and implementation strategies to govern how the City designs, builds, and maintains its pedestrian environment. A key goal of this plan is to prioritize the needs of walking, bicycling, transit use, and the use of streets as public spaces for social interaction and community life, following the *San Francisco General Plan*, Transit First Policy, and Better Streets Policy. The *Better Streets Plan* focuses on creating a positive pedestrian environment through measures such as careful streetscape design and traffic calming measures to increase pedestrian safety. The *Better Streets Plan* includes guidelines for the pedestrian environment, which it defines as the areas of the street where people walk, sit, shop, play, or interact. Generally speaking, the guidelines are for design of sidewalks and crosswalks; however,

in some cases, the *Better Streets Plan* includes guidelines for certain areas of the roadway, particularly at intersections.

Transportation Sustainability Program

The Transportation Sustainability Program is an initiative aimed at improving and expanding the transportation system to help accommodate new growth, and create a policy framework for private development to contribute to minimizing its impact on the transportation system, including helping to pay for the system's enhancement and expansion. The Transportation Sustainability Program is a joint effort by the Mayor's Office, the San Francisco Planning Department, the SFMTA, and the San Francisco County Transportation Authority (Transportation Authority), comprised of the following three objectives:

- **Fund Transportation Improvements to Support Growth.** The Transportation Sustainability Fee (TSF) is assessed on new development, including residential development, to help fund improvements to transit capacity and reliability as well as bicycle and pedestrian improvements. The TSF was passed by the Board of Supervisors and signed into law by the Mayor on November 25, 2015 (Board of Supervisors File No. 150790).¹⁹ The new TSP replaces the Transit Impact Development Fee (TIDF) that was levied on most new non-residential development citywide to offset new development's impacts on the transit system. The TSF will be applicable to residential and non-residential development projects within Central SoMa.
- **Modernize Environmental Review.** This component of the Transportation Sustainability Program would change how the City analyzes impacts of new development on the transportation system under the California Environmental Quality Act (CEQA). This reform has been helped by California Senate Bill 743, which requires that the existing transportation review standard, focused on automobile delay (vehicular level of service), be replaced with a more meaningful metric, VMT. VMT is a measure of the amount and distance that a project causes potential residents, tenants, employees, and visitors of a project to drive, including the number of passengers within a vehicle. Resolution 19579 regarding this reform was adopted at the Planning Commission hearing on March 3, 2016.
- **Encourage Sustainable Travel.** This component of the Transportation Sustainability Program would help manage demand on the transportation network through a Transportation Demand Management (TDM) Program, making sure new developments are designed to make it easier for new residents, tenants, employees, and visitors to get around by sustainable travel modes such as transit, walking, and biking. Each measure that would be included in the TDM program is intended to reduce VMT traveled from new development. Resolution 19628 of intent to initiate the *Planning Code* amendments was approved by the Planning Commission on August 4, 2016, and the *Planning Code* amendments will be forwarded to the Board of Supervisors for legislative approval.

¹⁹ Two additional files were created at the Board of Supervisors from TSF regarding hospitals and health services, grandfathering, and additional fees for large projects: 151121 and 151257.

THE MARKET AND OCTAVIA NEIGHBORHOOD PLAN

The Market and Octavia Neighborhood Plan (the MO Plan) is an Area Plan within the General Plan. The MO Plan's primary objectives are to enhance the neighborhood as a mixed-use urban neighborhood, strengthen its physical fabric and character, provide for development of infill construction throughout the plan area, preserve existing housing stock, and promote the preservation of historic buildings. Transportation-related objectives include: improving public transit to make it more reliable, attractive, convenient and responsive to increasing demand (Objective 5.1), developing and implementing parking policies for areas well served by public transit that encourage travel by public transit and alternative transportation modes and reduce traffic congestion (Objective 5.2), eliminating or reducing the negative impact of parking on the physical character and quality of the neighborhood (Objective 5.3), managing existing parking resources to maximize service and accessibility to all (Objective 5.4), establishing a bicycle network that provides a safe and attractive alternative to driving for both local and citywide travel needs (Objective 5.5), and improving vehicular circulation through the area (Objective 5.6).

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE THRESHOLDS

The significance criteria listed below are organized by mode to facilitate the transportation impact analysis; however, the transportation significance thresholds are essentially the same as the ones in the environmental checklist (Appendix G of the State *CEQA Guidelines*). For the purpose of this analysis, the following applicable thresholds were used to determine whether implementing the proposed project would result in a significant impact on transportation and circulation:

- **Traffic** – The project would have a significant adverse impact if it would cause major traffic hazards.

The project would have a significant effect on the environment if it would cause substantial additional VMT.

The project would have a significant effect on the environment if it would substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow travel lanes) or by adding new roadways to the network.

- **Transit** – A project would have a significant effect on the environment if it would cause a substantial increase in transit demand that could not be accommodated by adjacent transit capacity, resulting in unacceptable levels of transit service; or cause a substantial increase in delays or operating costs such that significant adverse impacts in transit service levels could result. With the Muni and regional transit screenlines analyses, the project would have a significant effect on the transit provider if project-related transit trips would cause the capacity utilization standard to be exceeded during the peak hour, or contribute considerably (i.e., a contribution of 5 percent or more) to ridership at a

screenline or corridor currently operating, or projected to operate under cumulative conditions, at greater than the transit provider's capacity utilization standard.

- **Pedestrians** – A project would have a significant effect on the environment if it would result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas.
- **Bicycles** – A project would have a significant effect on the environment if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.
- **Loading** – A project would have a significant effect on the environment if it would result in a loading demand during the peak hour of loading activities that could not be accommodated within proposed on-site loading facilities or within convenient on-street loading zones, and if it would create potentially hazardous traffic conditions or significant delays affecting traffic, transit, bicycles or pedestrians.
- **Emergency Vehicle Access** – A project would have a significant effect on the environment if it would result in inadequate emergency access.
- **Construction** – Construction of the project would have a significant effect on the environment if, in consideration of the project site location and other relevant project characteristics, the temporary construction activities' duration and magnitude would result in substantial interference with pedestrian, bicycle, or vehicle circulation and accessibility to adjoining areas thereby resulting in potentially hazardous conditions.

As described in the NOP/IS (**EIR Appendix A**), p. 148, the project site is not located within an area covered by an airport land use plan or within two miles of a public airport or public use airport; nor is it within the vicinity of a private airstrip. Therefore, implementation of the proposed project or its variant would not result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks, and these issues are not addressed in this EIR.

PROJECT FEATURES

Proposed Project

As discussed in **Chapter 2, Project Description**, p. 2.1, the proposed project would entail the demolition of all existing structures within the project site and construction of a new 40-story high-rise residential tower. It includes construction of pedestrian streetscape improvements at the street perimeter of the building site and within the adjacent public streetscape improvement area, and relocation of the Muni Van Ness station elevator from its current location within the project site to the entrance of the One South Van Ness Avenue building (located diagonally across Market Street from the project site at the southeast corner of the intersection of Van Ness Avenue/South Van Ness Avenue/Market Street), and two elevators would be provided at this location. It also includes an exclusive fire lane on Franklin Street between Oak and Market/Page

streets to serve fire trucks leaving SFFD Station 36 at 109 Oak Street. The purpose of the contraflow lane would be to provide fire trucks with an emergency vehicle route to the Market Street/Van Ness Avenue intersection without having to travel contraflow within the single westbound travel lane on Oak Street between Franklin Street and Van Ness Avenue, as they do currently. Additionally, the fire lane would prevent fire trucks from having to turn southbound from Oak Street to Van Ness Avenue directly in front of the future Van Ness Bus Rapid Transit (BRT) station, which would have heavy pedestrian traffic crossing Van Ness Avenue compared to existing conditions.

The proposed project would also include construction of a three-level, subsurface parking garage with 155 vehicle parking spaces. Vehicles would access the garage from westbound Oak Street, and vehicles exiting the garage would travel westbound on Oak Street (i.e., towards Franklin Street). Two car-share spaces would be provided for residents and the general public within 800 feet of the project site within the existing 110 Franklin Street parking lot.

The project would provide 310 Class 1 bicycle parking spaces on the mezzanine level, which would be accessed via a dedicated bicycle elevator located in the northwest corner of the project site. Sixty Class 2 spaces would be located on sidewalks on Oak and Market streets, subject to SFMTA approval.

Residential pedestrian access to the ground-floor entrance of the proposed building would be through lobby entrance doors along the Oak Street. The proposed restaurant/retail spaces would be accessed from a bank of doors facing northeast toward Oak Street and Van Ness Avenue, as well as from entrances along Market Street.

The proposed project would include one truck loading space on the ground floor and two service vehicle spaces within the first below-grade level of the project garage. The truck loading space would be accessed from Oak Street, and would be 13 feet wide by 45 feet in length, with a 12-foot vertical clearance. The two service vehicle loading spaces would be provided within the first below-grade level of the parking garage, and would be 8 feet wide and 20 feet long with a 12-foot vertical clearance. The service vehicle spaces would be used primarily to accommodate vehicles serving the building (e.g., for utility repair), rather than for active loading/unloading activities or for those service trips that require frequent access to the vehicle, but could also be used for resident move-ins and move-outs. Valet operators would access these two spaces via the car elevator.

Small package deliveries would use the proposed on-street passenger loading/unloading zone area near the proposed project's residential lobby entrance along the south side of Oak Street, or the planned on-street commercial loading zone on the south side of Oak Street directly west of the

project site (i.e., the planned commercial loading zone for the 1554 Market Street Project²⁰). Freight deliveries would reach the upper floors via one of the four elevators accessible from a service corridor at the southwestern corner of the building site.

In addition, the existing on-street recessed commercial loading bay on Market Street, which is about 130 feet in length, at the western edge of the project site could also serve the project site. The proposed project includes a service corridor for access from Market Street to the elevators and trash storage rooms.

Trash, recycling, and compost would be stored on site within two dedicated rooms on the ground floor and would be accessed via a service corridor from both Market and Oak streets.

Streetscape Improvements

The proposed project includes the following streetscape improvements to enhance pedestrian safety and comfort:

- The easternmost end of the Oak Street right-of-way adjacent to the project site would be narrowed from about 20 feet to a 14-foot-wide automobile-pedestrian “shared street” across a 12,250-square-foot public pedestrian plaza (Oak Plaza) extending westward from the Van Ness Avenue curb line by about 202 feet. The shared street across the proposed Oak Plaza would be raised 2 inches above street level, while the pedestrian-only plaza would be raised another 4 inches from the shared street, distinguished by a 4-inch curb. The transition area from the shared street to the Oak Street roadway would contain a 5-foot-wide, 2-inch-tall ramp at the western edge of the streetscape improvement area and a corresponding 5-foot-wide, 4-inch-tall ramp at the eastern edge of Oak Street that would ramp back down 6 inches before the intersection of Van Ness/Oak. Both the pedestrian plaza and the shared street would be distinguished from the vehicle-only Oak Street roadway to the west of the proposed streetscape improvement area by a distinctive paving pattern. Each end of the shared street (at Van Ness Avenue to the east, and midblock between Van Ness Avenue and Franklin Street) would have a pedestrian crosswalk. The eastern crosswalk would be flush with (i.e., at the same grade as) the existing Van Ness Avenue sidewalk on the west side of the street. The northern sidewalk of Oak Plaza would also include “micro retail” kiosks along the south side of the existing 25 Van Ness building.
- The proposed Oak Plaza would include wind screen canopy features that would buffer ground-level wind speeds to enhance pedestrian safety and comfort. These features would also serve as large-scale public art sculptures. The canopies would be freestanding trellis-like structures with cantilevered segments, supported by vertical columns.

In addition, the proposed project would relocate the existing Muni Van Ness station elevator on the project site facing Van Ness Avenue to the One South Van Ness Avenue building located at

²⁰ Information regarding the 1554 Market Street (aka 1546-1564 Market Street) Project is available online at <http://www.sf-planning.org/index.aspx?page=1828>. Accessed August 22, 2016.

the southeast corner of the intersection of Van Ness Avenue/South Van Ness Avenue/Market Street. Two elevators would be provided at the One South Van Ness Avenue location.

Variant to the Proposed Project

The Muni Station Elevator and Emergency Access Variant (project variant) is identical to the proposed project described above with respect to the proposed land use, building ground-level plans (i.e., pedestrian access, vehicular access, loading), mezzanine plans (i.e., bicycle parking), and below-grade level plans (vehicle parking, service vehicle loading). In addition, the proposed Oak Plaza, Class 2 bicycle parking spaces, and on-street parking/loading on Oak Street would be the same as for the proposed project. However, the following two aspects of the project variant are variations from the proposed project:

- Under the project variant, the existing Muni Van Ness station elevator would be located at or near the existing Muni station elevator currently located within the project property line, as opposed to the One South Van Ness Avenue building as under the proposed project.
- The project variant would not include the proposed Franklin Street contraflow fire lane. Instead, SFFD fire trucks would continue to travel eastbound within the westbound travel lane on Oak Street to access Market Street east of Franklin Street, as under existing conditions.

The variant to the proposed project is illustrated in **Figure 2.17: Project Variant, Basement Plan** in **Chapter 2, Project Description**, on p. 2.31.

APPROACH TO ANALYSIS

This section presents the methodology for analyzing transportation impacts and information considered in developing travel demand for the proposed project. The impacts of the proposed project on the surrounding roadways were analyzed using the guidelines set forth in the SF Guidelines and Planning Commission Resolution 19579 and supporting materials, which provide direction for analyzing transportation conditions and identifying the transportation impacts of a proposed project in San Francisco.

The analysis of the proposed project and its variant was conducted for existing and 2040 cumulative conditions. “Existing plus Project/Variant” conditions assess the near-term impacts of the proposed project or its variant, while “2040 Cumulative” conditions assess the long-term impacts of the proposed project or its variant in combination with other reasonably foreseeable development.

Senate Bill 743 and Public Resources Code Section 21099

As discussed in **Section 4.A, Chapter Introduction**, pp. 4.A.1-4.A.3, Senate Bill 743 amended CEQA by adding Public Resources Code Section 21099 regarding the analysis of parking impacts for certain urban infill projects in transit priority areas.²¹ Public Resources Code Section 21099(d), effective January 1, 2014, provides that "... parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment." Accordingly, parking is no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all three criteria established in the statute. The proposed project meets all of the criteria,²² and thus the transportation impact analysis does not consider the adequacy of parking in determining the significance of project impacts under CEQA. However, the Planning Department acknowledges that parking conditions may be of interest to the public and the decision-makers. Therefore, this EIR presents a parking demand analysis for informational purposes and considers any secondary physical impacts associated with constrained supply (e.g., queuing by drivers waiting for scarce on-site parking spaces that affects the public right-of-way) as applicable in the following transportation impact analysis.

Impacts Analysis Methodology

Vehicle Miles Traveled Analysis

Land use projects and plans may cause substantial additional VMT. The following discussion identifies thresholds of significance and screening criteria used to determine if a land use project would result in significant impacts under the VMT metric.

²¹ A "transit priority area" is defined as an area within one-half mile of an existing or planned major transit stop. A "major transit stop" is defined in California Public Resources Code Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. A map of San Francisco's Transit Priority Areas is available online at <http://sfmea.sfplanning.org/Map%20of%20San%20Francisco%20Transit%20Priority%20Areas.pdf>.

²² San Francisco Planning Department. Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis for One Oak Street, November 2016. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400 as part of Case File No. 2009.0159E.

For residential projects, a project would generate substantial additional VMT if it exceeds the regional household VMT per capita minus 15 percent.²³ For office projects, a project would generate substantial additional VMT if it exceeds the regional VMT per employee minus 15 percent. As documented in the *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* (“proposed transportation impact guidelines”), a 15 percent threshold below existing development is “both reasonably ambitious and generally achievable.”²⁴ For retail projects, the Planning Department uses a VMT efficiency metric approach for retail projects: a project would generate substantial additional VMT if it exceeds the regional VMT per retail employee minus 15 percent. This approach is consistent with CEQA Section 21099 and the thresholds of significance for other land uses recommended in OPR’s proposed transportation impact guidelines. For mixed-use projects, each proposed land use is evaluated independently, per the significance criteria described above.

OPR’s proposed transportation impact guidelines provides screening criteria to identify types, characteristics, or locations of land use projects that would not exceed these VMT thresholds of significance. OPR recommends that if a project or land use proposed as part of the project meets any of the screening criteria shown below, then VMT impacts are presumed to be less than significant for that land use and a detailed VMT analysis is not required. These screening criteria and how they are applied in San Francisco are as follows:

- **Map-Based Screening for Residential, Office, and Retail Projects.** OPR recommends mapping areas that exhibit where VMT is less than the applicable threshold for that land use. Accordingly, the Transportation Authority has developed maps depicting existing VMT levels in San Francisco for residential, office, and retail land uses based on the SF-CHAMP 2012 base-year model run. The Planning Department uses these maps and associated data to determine whether a proposed project is located in an area of the City that is below the VMT threshold.
- **Small Projects –** OPR recommends that lead agencies may generally assume that a project would not have significant VMT impacts if the project would either: (1) generate fewer trips than the level for studying consistency with the applicable congestion management program or (2) where the applicable congestion management program does not provide such a level, fewer than 100 vehicle trips per day. The Transportation Authority’s Congestion Management Program, December 2015, does not include a trip threshold for studying consistency. Therefore, the Planning Department uses the 100 vehicle trip per day screening criterion as a level generally where projects would not generate a substantial increase in VMT.

²³ OPR’s proposed transportation impact guidelines state a project would cause substantial additional VMT if it exceeds both the existing City household VMT per capita minus 15 percent and existing regional household VMT per capita minus 15 percent. In San Francisco, the City’s average VMT per capita is lower (8.4) than the regional average (17.2). Therefore, the City average is irrelevant for the purposes of the analysis.

²⁴ Governor’s Office of Planning and Research, *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, January 20, 2016, p. III:20. This document is available online at https://www.opr.ca.gov/s_sb743.php.

- Proximity to Transit Stations. OPR recommends that residential, retail, and office projects, as well projects that are a mix of these uses, proposed within ½ mile of an existing major transit stop (as defined by CEQA Section 21064.3) or an existing stop along a high quality transit corridor (as defined by CEQA 21155) would not result in a substantial increase in VMT. However, this presumption would not apply if the project (1) would have a floor area ratio of less than 0.75; (2) include more parking for use by residents, customers, or employees of the project than required or allowed, without a conditional use; or (3) is inconsistent with the applicable Sustainable Communities Strategy.²⁵

Induced Automobile Travel Analysis

Transportation projects may substantially induce additional automobile travel. The following discussion identifies thresholds of significance and screening criteria used to determine if transportation projects would result in significant impacts by inducing substantial additional automobile travel. These thresholds and screening criteria are part of OPR's proposed transportation impact guidelines, which have been adopted by the Planning Department.

A transportation project would substantially induce automobile travel if it would generate more than 2,075,220 VMT per year. This threshold is based on the fair share VMT allocated to transportation projects required to achieve California's long-term greenhouse gas emissions reduction goal of 40 percent below 1990 levels by 2030.

OPR's proposed transportation impact guidelines include 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) described below, then it is presumed that VMT impacts would be less than significant and a detailed VMT analysis is not required. Accordingly, the proposed project would not result in a substantial increase in VMT because it would include the following components and features:

- Active Transportation, Rightsizing (aka Road Diet), and Transit Projects:
 - Infrastructure projects, including safety and accessibility improvements, for people walking or bicycling; and
 - Installation or reconfiguration of traffic calming devices.
- Other Minor Transportation Projects:
 - Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority (TSP) features;
 - Timing of signals to optimize vehicle, bicycle, or pedestrian flow on local or collector streets;

²⁵ A project is considered to be inconsistent with the Sustainable Communities Strategy if development is located outside of areas contemplated for development in the Strategy.

- Addition of transportation wayfinding signage;
- Removal of off-street or on-street parking spaces; and
- Adoption, removal, or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs).

Transit Analysis

The impact of additional weekday AM and PM peak hour transit ridership generated by the proposed project or its variant on local and regional transit providers was assessed by comparing the projected ridership to the available transit capacity, using the screenline and corridor analysis used to describe existing conditions (see pp. 4.C.13-4.C.18 under “Environmental Setting”). In addition, the impact of the proposed project’s vehicular access to the on-site vehicle parking garage and loading area on Muni transit routes (i.e., delay to transit vehicles) that run adjacent to the project site was assessed qualitatively.

Pedestrian Analysis

As with the existing conditions discussed on pp. 4.C.18-4.C.20 under “Environmental Setting,” the effect of the proposed project or its variant on pedestrian safety/hazards issues (i.e., potential conflicts with traffic, transit, and bicyclists) was evaluated qualitatively while the effect of the proposed project or its variant on the pedestrian network (i.e., the adjacent sidewalk) was evaluated quantitatively using the *HCM 2000* methodology.

Bicycle Analysis

Bicycle conditions were assessed qualitatively as they relate to the project site, including bicycle routes, safety and right-of-way issues, and conflicts with traffic.

Loading Analysis

Loading was analyzed by comparing the on-site loading spaces supplied by the proposed project or its variant to Planning Code requirements and projected loading demand.

Emergency Vehicle Access Analysis

Potential changes to emergency vehicle access were assessed qualitatively. Specifically, the analysis assessed whether the proposed shared street on Oak Street or the proposed fire lane on Franklin Street would impair adequate emergency vehicle access.

Construction Analysis

The construction impact evaluation addresses the staging and duration of construction activity, estimated daily truck and worker volumes, and street lane and/or sidewalk closures.

Proposed Project Travel Demand

Project travel demand refers to the new vehicle, transit, pedestrian, and bicycle traffic that would be generated by the proposed project. Parking and freight loading demand for the proposed project are also analyzed. The travel demand, parking demand, and freight/service vehicle loading demand estimates were based on information contained in the *SF Guidelines 2002*.²⁶

The travel demand reflects the net-new demand associated with the new residential (310 residential units) and restaurant/retail uses (4,025 sq. ft.). The easternmost portion of the project site is currently occupied by an existing three-story commercial building (1500 Market Street - All Star Café). This building also contains an elevator entrance to the Muni Van Ness station with street access on Van Ness Avenue. Immediately west of the 1500 Market Street building is an existing 30-car surface parking lot. The westernmost portion of the project site at 1540 Market Street is occupied by a four-story, 48,225-sq.-ft. commercial office building, which is currently partially occupied. Person-trip counts were conducted on Wednesday, November 12, 2014, during the PM peak period to determine the travel demand associated with the existing uses on the project site (i.e., into and out of the 1500 Market Street and 1540 Market Street buildings). In addition, vehicle trips into and out of the surface parking lot were counted at the same time. During the PM peak hour, there were 134 person-trips and 11 vehicle trips associated with the existing uses. These trips were subtracted from the trip generation for the proposed residential, retail, and restaurant uses to determine the net-new trip generation. For AM peak hour conditions, counts associated with the existing uses were not conducted, and therefore, as a conservative assumption, a credit for the existing uses was not applied and the new trips generated by the proposed uses were added to the existing traffic and transit conditions.

The proposed project and project variant would include the same amount of residential and restaurant/retail land uses, and therefore the travel demand presented below for the proposed project would be the same for the project variant.

Trip Generation

The daily, AM, and PM peak hour person-trip generation for the proposed project accounts for residents, employees, and visitors. The person-trip generation rates from the *SF Guidelines* were

²⁶ TIS, pp. 55-62.

applied to the residential units (with different rates for the new studio/one-bedroom and two-or-more-bedroom units) and the restaurant use in the proposed project.

Table 4.C.9: Number of Person-Trips Generated by Land Use presents the weekday daily, AM, and PM peak hour person trips generated by the proposed uses. The proposed project would generate about 3,513 person-trips (inbound and outbound) on a weekday daily basis, 410 person-trips during the weekday AM peak hour, and 577 person-trips during the weekday PM peak hour. The project variant would generate the same number of person-trips as the proposed project.

Table 4.C.9: Number of Person-Trips Generated by Land Use

Land Use	Size	Person Trip Generation Rates	Person-Trips		
			Daily	AM Peak Hour	PM Peak Hour
Residential					
Studio/one bedroom	157 units	7.5 per unit	1,178	173	204
Two+ bedrooms	153 units	10.0 per unit	1,530	225	264
Restaurant/Retail	4,025 gsf	200 per 1,000 gsf	805	12	109
		New Total	3,513	410	577

Notes:

gsf – gross square feet

^a The trip generation rate from the *SF Guidelines* used in the analysis is a Quality Sit-down (200 trips per 1,000 gsf) restaurant.

Sources: SF Guidelines 2002; LCW Consulting, 2016

Mode Split

Table 4.C.10: Trip Generation by Mode – Weekday AM and PM Peak Hours presents the weekday AM and PM peak hour trip generation by mode for the proposed project. The project-generated person-trips were allocated among different travel modes in order to determine the number of auto, transit, and other trips going to and from the site. The “Other” category includes bicycle, motorcycle, taxi, and additional modes. During the weekday AM peak hour, the proposed project would generate about 132 vehicle trips, of which 33 vehicle trips would be inbound to the project site and 99 vehicle trips would be outbound from the project site. During the weekday PM peak hour, the proposed project would generate about 160 net new vehicle trips, of which 110 vehicle trips would be inbound to the project site and 50 vehicle trips would be outbound from the project site.

Table 4.C.10: Trip Generation by Mode – Weekday AM and PM Peak Hours

Land Use	Person-Trips				Total	Vehicle Trips
	Auto	Transit	Walk	Other ^a		
Weekday AM Peak Hour						
Residential	170	136	51	41	398	130
Restaurant	3	2	6	1	12	2
<i>New Trips</i>	173	138	57	42	410	132
Weekday PM Peak Hour						
Residential	200	160	60	48	468	153
Restaurant	31	18	47	12	108	18
<i>New Trips</i>	231	178	107	60	577	171
Credit for Existing uses	38	20	60	16	134	11
<i>Net-New Trips</i>	193	158	47	44	442	160

Note:

^a “Other” mode includes bicycles, motorcycles, and taxis.

Sources: *SF Guidelines 2002*; LCW Consulting, 2016

Trip Distribution/Assignment

The distribution of trips for the proposed land uses was obtained from census data for census tract 168.02 for the residential land use and the *SF Guidelines 2002* for the restaurant/retail uses. Trip distribution is based on the origin/destination of the trips, and is separated into the four quadrants of San Francisco (Superdistricts 1 through 4), the East Bay, the North Bay, the South Bay, and Out of Region. As shown in **Table 4.C.11: Trip Distribution Patterns by Land Use**, the majority of the trips generated by the proposed project uses would be within San Francisco. These patterns were used as the basis for assigning project-generated vehicle trips to the local streets in the study area and transit trips to the north/south and east/west transit corridors.

Table 4.C.11: Trip Distribution Patterns by Land Use

Origin/ Destination	Restaurant/Retail		Residential
	Work	Non-Work	Non-Work/Work
San Francisco			
Superdistrict 1	14.1%	8.0%	58.0%
Superdistrict 2	15.7%	8.0%	8.3%
Superdistrict 3	19.9%	12.0%	8.3%
Superdistrict 4	12.0%	4.0%	8.3%
East Bay	22.7%	15.0%	5.1%
North Bay	2.9%	10.0%	3.2%
South Bay	11.1%	5.0%	8.2%
Out of Region	1.6%	38.0%	0.6%
Total	100%	100%	100%

Sources: *SF Guidelines 2002*; 1990 U.S. Census; LCW Consulting, 2016

Loading Demand

As shown in **Table 4.C.12: Freight Delivery and Service Vehicle Demand by Land Use**, the proposed project would generate 28 delivery/service vehicle trips per day. These daily truck trips correspond to a demand for two loading spaces during the peak and average hour of loading activities. It is anticipated that most of the delivery/service vehicles that would be generated by the proposed project would consist of relatively small trucks with two axles (e.g., small courier trucks, mail trucks, and step vans which are typically less than 30 feet in length) and vans. In addition, the residential use would generate a demand for large moving trucks and small moving vans.

Table 4.C.12: Freight Delivery and Service Vehicle Demand by Land Use

Land Use	Daily Truck Trip Generation	Peak Hour Loading Spaces	Average Hour Loading Spaces
Residential	13.1	0.76	0.60
Restaurant/Retail	14.5	0.84	0.67
Total	27.6	1.69	1.27

Sources: SF Guidelines 2002; LCW Consulting, 2016

PROJECT-LEVEL IMPACT EVALUATION

This subsection presents an assessment of traffic, transit, pedestrian, bicycle, loading, emergency vehicle access, and construction impacts generated by the proposed project or its variant. The parking demand analysis is presented for informational purposes and considers any secondary physical impacts associated with constrained supply (e.g., queuing by drivers waiting for scarce on-site parking spaces that affects the public right-of-way), as applicable.

The proposed project and its variant would include the same land uses on the project site and were evaluated together. The following scenarios have been assessed for transportation impacts:

- Existing plus Project/Variant, and
- 2040 Cumulative.

As discussed above, the differences between the proposed project and its variant are limited to the location of the Muni Van Ness station elevator and provision of a fire lane on Franklin Street.

Traffic Impacts

Impact TR-1: The proposed project or its variant would not cause substantial additional VMT, substantially increase automobile travel, or result in traffic hazards. (Less than Significant)

VMT Analysis

The existing average daily VMT per capita for the transportation analysis zone (TAZ) in which the project site is located, TAZ 588, is below the existing regional average daily VMT.

- For the residential uses, the average daily VMT per capita is 3.5 for TAZ 588, which is about 80 percent below the existing regional average daily VMT per capita of 17.2.
- For the retail uses, the average daily VMT per visitor is 8.3 for TAZ 588, which is about 44 percent below the existing regional average daily VMT per visitor of 14.9.

Thus, as described above, the project site is located within an area of the City where the existing VMT is below the regional VMT thresholds by more than 15 percent, and the proposed project land uses would not generate a substantial increase in VMT.²⁷ Furthermore, the project site meets the Proximity to Transit Stations screening criterion, which also indicates the proposed project's residential and restaurant/retail uses would not cause substantial additional VMT.²⁸

The proposed project is not a transportation project. However, the proposed project would include features that would alter the transportation network (e.g., shared street, fire lane). These features fit within the general types of projects identified above that would not substantially induce automobile travel.²⁹

Garage Operations

Vehicular access to the proposed project parking garage would be via a 24-foot-wide driveway (with a vertical clearance of 12 feet) on Oak Street located about 225 feet east of Franklin Street. Two car elevators would be provided for valet operators to bring vehicles to and from the below-grade parking floor. The car elevators would be set back by approximately 80 feet to provide for storage of up to three vehicles. Both elevators would be available for inbound and outbound traffic.

A queuing assessment of the garage access operations was conducted for weekday PM peak hour conditions, when the maximum number of vehicles would be accessing the site (i.e., residents would be returning from work). The assessment assumed that during the PM peak hour, about 40

²⁷ The Map-Based Screening for Residential, Office, and Retail Projects was applied to the proposed project. The project site is located within TAZ 588, which is within an area of the City where the existing VMT is more than 15 percent below the regional VMT thresholds, as documented in Executive Summary Resolution Modifying Transportation Impact Analysis, Attachment F (Methodologies, Significance Criteria, Thresholds of Significance, and Screening Criteria for Vehicle Miles Traveled and Induced Automobile Travel Impacts), Appendix A (SFCTA Memo), March 3, 2016. Available online at http://commissions.sfplanning.org/cpcpackets/Align-CPC%20exec%20summary_20160303_Final.pdf. Accessed March 21, 2016.

²⁸ San Francisco Planning Department. Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis for One Oak Street, November 2016. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400 as part of Case File No. 2009.0159E.

²⁹ *Ibid.*

vehicles would be entering the garage and 19 vehicles would be exiting the garage.³⁰ Because all vehicles would be parked and retrieved by valet operators, the processing and resulting queue would be affected by the number of valet operators who would be available to park and retrieve vehicles. Assuming that the number of valet operators would be maximized during the PM peak period when residents would be returning from work, and that the time to drop off or retrieve the vehicle by the valet would be similar to the general car elevator specifications (i.e., based on general elevator manufacturer information, one full elevator cycle would take approximately two minutes), the resulting average vehicle queue would be one vehicle, and the 95th percentile queue would be five vehicles.³¹ Thus, the number of times the queue would exceed the three on-site queue storage spaces would be infrequent, and in those circumstances, the vehicles could queue on Oak Street at the approach to the garage entrance, or valets could store vehicles in the passenger loading zones on the south side of Oak Street. The proposed project's garage operations would therefore not constrain vehicles traveling westbound on Oak Street.

Contraflow Fire Lane on Franklin Street between Oak and Page/Market Streets

As part of the proposed project, a contraflow fire lane would be provided on the east side of Franklin Street for fire trucks exiting SFFD Station 36 and traveling southbound on Franklin Street between Oak and Page/Market streets. With implementation of the fire lane, on-street parking on Franklin Street between Oak and Market/Page streets would be removed, and the three northbound travel lanes would be shifted to the west. Implementation of the Fire Lane would require that all northbound vehicles on 12th Street between South Van Ness Avenue and Market Street (one block approximately 600 feet in length) turn right onto Market Street eastbound. Thus, vehicles traveling northbound on 12th Street would no longer be able to cross Market Street to access westbound Page Street (access from 12th Street to westbound Market Street is currently prohibited). The intersection of 12th/Market would be converted from signal control to a stop sign, and a "Right Turn Only" sign would be added. Vehicles destined for westbound Page Street would either turn right onto Market Street, or travel southbound on 12th Street, to access southbound South Van Ness Avenue to Otis Street, continue on westbound Otis Street to northbound Gough Street, and access the eastbound Market Street turning lanes onto northbound Franklin Street as well as westbound Page Street. There are a limited number of vehicles turning left from 12th Street onto Page Street (e.g., fewer than 15 vehicles during the PM peak hour) that would be affected by this restriction, and the rerouting of these vehicles would not substantially affect operations of adjacent streets and intersections. See **Impact TR-6**, pp. 4.C.60-4.C.62, for a discussion of emergency vehicle access impacts.

³⁰ The number of resident vehicles assumed entering and exiting the garage was adjusted to reflect that the garage would not provide one parking space per unit, and that only a portion of the residential parking demand would be accommodated on-site.

³¹ The 95th percentile queue is the length of queue that has a probability of 5 percent or less of being exceeded during the analysis hour.

Conclusion

Overall, the proposed project would not cause substantial additional VMT or substantially induce automobile travel. In addition, the proposed shared street and project garage operations would not substantially affect Oak Street traffic operations, and the Franklin Street fire lane would not affect traffic operations of nearby streets and intersections. For the reasons described above, the proposed project's impacts related to traffic would be less than significant.

While the proposed project or variant impacts related to traffic would be less than significant, **Improvement Measure I-TR-A: Transportation Demand Management Plan**³² is identified to further reduce the project's or variant's amount of travel by single-occupant vehicle mode. The TDM Plan would help shift travel from single occupant vehicles to more sustainable modes such as transit, walking, and bicycling. The Planning Department is currently pursuing an ordinance amending the Planning Code to establish a citywide TDM Program. Resolution 19628 of intent to initiate the Planning Code amendments was approved by the Planning Commission on August 4, 2016 (Resolutions 19715 and 19716), and the Planning Code amendments have been forwarded to the Board of Supervisors for legislative approval. If the proposed Planning Code amendments are legislated by the Board of Supervisors, the proposed project would be subject to the requirements of the TDM Program.

Improvement Measure I-TR-A: Transportation Demand Management Plan

As an improvement measure to encourage use of sustainable modes, the project sponsor and subsequent property owners should develop and implement a TDM Plan. The scope and number of TDM measures included in the TDM Plan should be in accordance with the Planning Commission Standards for the TDM Program (TDM Program) for the type of development proposed.³³ The TDM Program Standards may be refined as planning for the proposed TDM Ordinance goes through the legislative process. The proposed project's TDM Plan should conform to the most recent version of the TDM Program Standards available at the time of the project's approval, as defined in the proposed TDM Ordinance. The Planning Department should review and approve the TDM Plan, as well as any subsequent revisions to the TDM Plan, pursuant to the TDM Program Standards. The TDM Plan should target a reduction in the vehicle miles traveled (VMT) rate (e.g., VMT per capita), monitor and evaluate project performance (actual VMT), and adjust TDM measures over time to attempt to meet VMT target reduction.

³² Improvement measures are recommended further actions, agreed to by the project sponsor, identified to reduce or avoid impacts that are determined to be less than significant. Identification of improvement measures is not required under CEQA, but they are often presented in San Francisco environmental documents to inform decision-makers of additional actions that could improve the proposed project.

³³ San Francisco Planning Department, *Draft TDM Program Standards*, July 2016 are available online at: <http://sf-planning.org/tdm-materials-and-resources>. Note: the July 2016 TDM Program Standards were adopted unanimously at the Planning Commission on August 4, 2016 and the legislative amendments, which reference the TDM Program Standards, are awaiting Board of Supervisors hearings. Accessed on September 19, 2016.

This improvement measure may be superseded if a comparable TDM Ordinance is adopted that applies to the proposed project.

The TDM Plan may include, but is not limited to, the types of measures summarized below for explanatory example purposes. Actual TDM measures selected should include those from the TDM Program Standards, which describe the scope and applicability of candidate measures in detail and include.

1. Active Transportation: Provision of streetscape improvements to encourage walking, secure bicycle parking, shower and locker facilities for cyclists, subsidized bike share memberships for project occupants, bicycle repair and maintenance services, and other bicycle-related services.
2. Car-Share: Provision of car-share parking spaces and subsidized memberships for project occupants.
3. Delivery: Provision of amenities and services to support delivery of goods to project occupants.
4. Family-Oriented Measures: Provision of on-site childcare and other amenities to support the use of sustainable transportation modes by families.
5. High-Occupancy Vehicles: Provision of carpooling/vanpooling incentives and shuttle bus service.
6. Information and Communications: Provision of multimodal wayfinding signage, transportation information displays, and tailored transportation marketing services.
7. Land Use: Provision of on-site affordable housing and healthy food retail services in underserved areas.
8. Parking: Provision of unbundled parking, short term daily parking provision, parking cash out offers, and reduced off-street parking supply.

Implementation of **Improvement Measure I-TR-A** would not result in any secondary transportation-related impacts.

Transit Impacts

Impact TR-2: The proposed project or its variant would not result in a substantial increase in transit demand that could not be accommodated by adjacent local and regional transit capacity, nor would it cause a substantial increase in delays or operating costs such that significant adverse impacts to local or regional transit service could occur. (*Less than Significant*)

Muni

Because the proposed project would primarily be a residential building, the majority of the transit trips during the AM peak hour would be outbound (residents leaving the building and traveling to work) while during the PM peak hour the majority would be inbound to the site (residents returning from work). The proposed project would generate about 138 transit trips (35 inbound to

the project site and 103 outbound from the project site) during the AM peak hour, and about 158 transit trips (104 inbound to the project site and 54 outbound from the project site) during the PM peak hour. Transit trips to and from the proposed project would utilize the nearby Muni routes, with riders transferring to other Muni bus and light rail lines, or to regional transit providers including Caltrain, SamTrans, AC Transit, Golden Gate Transit, and BART.

Based on the location of the project site and the origins and destinations of the residents, employees, and visitors of the proposed project, under Existing plus Project/Variant conditions it was assumed that during the AM peak hour 108 of the 138 peak hour transit trips would utilize Muni routes (i.e., trips within San Francisco), and during the PM peak hour 121 of the 158 peak hour transit trips would utilize Muni routes. Trips to the East Bay and South Bay would be via BART at the Civic Center station, and trips to the North Bay would be via Golden Gate Transit routes on Van Ness Avenue, and were not assigned to the Muni east/west and north/south corridors. **Table 4.C.13: Muni Corridor Analysis - Existing Plus Project/Variant Conditions – Weekday AM and PM Peak Hours** presents the weekday AM and PM peak hour ridership and capacity utilization for the north/south and east/west corridors for Existing plus Project/Variant conditions. The project variant would have the same weekday AM and PM peak hour ridership and capacity utilization as the proposed project.

During the AM peak hour, the proposed project would add 27 transit trips to the north/south corridor (i.e., the 47 Van Ness and the 49 Van Ness-Mission), and 81 transit trips to the east/west corridor (the 6 Parnassus, 7/7R Haight-Noriega/Haight-Noriega Rapid, 9 San Bruno, 9R San Bruno Rapid, 14 Mission, 14L Mission Limited, 21 Hayes, F Market, J Church, K Ingleside, L Taraval, M Ocean View, and the N Judah). During the AM peak hour, with the addition of the project trips on the northbound, southbound and westbound corridors would remain at less than the 85 percent capacity utilization standard. During the AM peak hour, the eastbound direction of the east/west corridor currently operates at more than the 85 percent capacity utilization standard, and therefore the project's contribution to ridership was examined to determine if the contribution would be considered significant (i.e., more than 5 percent) and therefore a project impact. The additional 60 trips assigned to the eastbound direction (i.e., towards downtown) on the east/west corridor would increase the capacity utilization from 90.9 to 91.5 percent, the project contribution would not be substantial (60 transit trips out of a total of 9,697 trips on the eastbound corridor = 0.6 percent), and the proposed project's contribution would not be considered a significant project impact.

Table 4.C.13: Muni Corridor Analysis – Existing Plus Project/Variant Conditions – Weekday AM and PM Peak Hours

Corridor/Direction of Travel	Existing			Existing plus Project/Variant		
	Ridership	Capacity	Capacity Utilization ^a	Project Trips	Ridership	Capacity Utilization ^a
AM Peak Hour						
North/South Corridor^b						
Northbound	605	1,083	55.9%	20	625	57.7%
Southbound	645	1,083	59.6%	7	652	60.2%
East/West Corridor^c						
Eastbound	9,637	10,604	90.9%	60	9,697	91.4%
Westbound	2,958	10,836	27.3%	21	2,979	27.5%
PM Peak Hour						
North/South Corridor^b						
Northbound	560	1,083	51.7%	10	570	52.6%
Southbound	597	1,083	55.1%	20	617	56.9%
East/West Corridor^c						
Eastbound	4,285	10,469	40.9%	30	4,315	41.2%
Westbound	7,962	10,800	73.7%	61	8,023	74.3%

Notes:

^a **Bold** indicates that the capacity utilization is greater than the 85 percent standard.

^b The north/south corridor includes the 47 Van Ness and the 49 Van Ness-Mission.

^c The east/west corridor includes the 6 Parnassus, 7/7R Haight-Noriega/Haight-Noriega Rapid, 9 San Bruno, 9R San Bruno Rapid, 14 Mission, 14L Mission Limited, 21 Hayes, F Market, J Church, K Ingleside, L Taraval, M Ocean View, and N Judah.

Sources: San Francisco Planning Department; LCW Consulting, 2016

During the PM peak hour, the proposed project would add 30 transit trips to the north/south corridor, and 91 transit trips to the east/west corridor. With the addition of project trips, the capacity utilization at the northbound, southbound, eastbound, and westbound corridors all would remain at less than the 85 percent capacity utilization standard. The transit routes have available capacity during the weekday PM peak hour that could be used to accommodate any transit trips that would be generated by the proposed project’s residents, visitors and employees switching to transit due to difficulty in finding nearby on-street parking.

As part of the proposed project, the existing Muni Van Ness station elevator would be relocated to One South Van Ness Avenue (two elevators would be provided at One South Van Ness Avenue), while the project variant would locate an elevator either in its existing location or nearby in the southeast corner of the proposed Oak Plaza. The relocation of the elevator would not substantially affect transit access to the Muni Van Ness station.

Table 4.C.14: Muni Downtown Screenline Analysis – Southwest Screenline – Existing Plus Project/Variant Conditions – Weekday AM and PM Peak Hours presents the Muni downtown screenline analysis for the Southwest screenline for the Existing plus Project/Variant conditions for weekday AM and PM peak hours. The Southwest screenline is the only screenline that is presented because project-generated transit trips traveling to downtown during the AM

peak hour or returning home from downtown during the PM peak hour would use the Muni routes in this screenline.

Table 4.C.14: Muni Downtown Screenline Analysis – Southwest Screenline – Existing plus Project/Variant Conditions – Weekday AM and PM Peak Hours

Peak Hour/Corridor	Existing			Existing plus Project/Variant		
	Ridership	Capacity	Capacity Utilization	Project Trips	Ridership	Capacity Utilization
AM Peak Hour						
Subway	6,330	6,205	102.0%	48	6,205	102.8%
Haight/Noriega	1,121	1,554	72.1%	8	1,554	72.7%
Other	465	700	66.5%	4	700	66.9%
<i>Subtotal</i>	<i>7,916</i>	<i>8,459</i>	<i>93.6%</i>	<i>60</i>	<i>8,459</i>	<i>94.3%</i>
PM Peak Hour						
Subway	4,904	6,164	79.6%	47	6,164	80.3%
Haight/Noriega	977	1,554	62.9%	9	1,554	63.5%
Other	555	700	79.3%	5	700	80.0%
<i>Subtotal</i>	<i>6,436</i>	<i>8,418</i>	<i>76.5%</i>	<i>61</i>	<i>8,418</i>	<i>77.2%</i>

Note

Bold indicates that the capacity utilization is greater than the 85 percent standard.

Source: SF Planning Department, 2015, LCW Consulting, 2016

As shown on **Table 4.C.14**, during the AM peak hour, the Subway corridor of the Southwest screenline and the Southwest screenline operate at more than the 85 percent capacity utilization standard, and therefore the project’s contributions to ridership on the Subway corridor and the Southwest screenline were examined to determine if the contributions would be considered significant (i.e., more than 5 percent) and therefore a project impact. The additional 48 trips assigned to the Subway corridor would increase the capacity utilization from 102.0 to 102.8 percent, the project contribution would not be substantial (48 transit trips out of a total of 6,378 trips = 0.76 percent), and this contribution would not be considered a significant project impact. Similarly, for the Southwest screenline, the additional 60 trips would increase the capacity utilization of the Southwest screenline from 93.6 to 94.3 percent, the project contribution would not be substantial (48 transit trips out of a total of 7,976 trips = 0.75 percent), and this contribution would not be considered a significant project impact.

During the PM peak hour, the addition of the project-generated riders to the Southwest screenline and corridors would not substantially increase the peak hour capacity utilization. Capacity utilization would remain similar to that under Existing conditions (see Table 4.C.4, p. 4.C.16), and below the capacity utilization standard of 85 percent. Therefore, the impacts of the proposed project or its variant on Muni capacity utilization would be less than significant. No mitigation is necessary.

Regional Transit

Similar to Muni, the analysis of regional transit screenlines assesses the effect of project-generated transit-trips on transit conditions in the inbound direction (i.e., towards downtown San Francisco) during the AM peak hour and in the outbound direction (i.e., away from downtown San Francisco) during the weekday PM peak hour. Based on the origins/destinations of the transit trips generated by the proposed project, the regional transit trips were assigned to the three regional transit screenlines. **Table 4.C.15: Muni Downtown Screenline Analysis – Southwest Screenline – Existing Plus Project/Variant Conditions – Weekday AM and PM Peak Hours** presents the Existing plus Project/Variant screenline analysis for the regional transit carriers for the AM and PM peak hours.

During the weekday AM peak hour two transit trips would travel to the project site from the East Bay, one transit trip from the North Bay, and three transit trips from the South Bay. The addition of these six project-related trips would not have a substantial effect on the regional transit providers during the weekday AM peak hour, as the capacity utilization for all screenlines would remain similar to those under existing conditions. During the AM peak hour, the East Bay screenline would continue to operate at more than the regional transit service provider capacity utilization standard of 100 percent, while the North Bay and South Bay screenlines would operate under 100 percent capacity utilization. With the additional two trips assigned to BART from the East Bay, the capacity utilization of BART would remain the same as under existing conditions, at 109.2 percent, and the project contribution would not be substantial (2 transit trips out of a total of 25,401 trips = 0.01 percent). Similarly, the additional two trips assigned to the overall East Bay screenline would not be substantial (two trips out of a total of 27,779 trips = 0.01 percent). These contributions to the AM peak hour regional screenlines would not be considered a significant impact. No mitigation is necessary.

During the weekday PM peak hour there would be three transit trips destined to the East Bay, two transit trips to the North Bay, and five transit trips to the South Bay. In general, the addition of the 10 project-related passengers would not have a substantial effect on the regional transit providers during the weekday PM peak hour. During the PM peak hour, the overall regional screenlines would continue to operate under 100 percent capacity utilization. However, during the PM peak hour, BART to the East Bay would continue to operate at more than 100 percent capacity utilization. With the additional three trips assigned to BART to the East Bay, the capacity utilization of BART would remain the same as under existing conditions, at 107.5 percent, and

Table 4.C.15: Regional Transit Screenline Analysis –Existing plus Project/Variant Conditions – Weekday AM and PM Peak Hours

Peak Hour/Corridor	Ridership	Project Trips	Existing plus Project/Variant Ridership	Capacity	Capacity Utilization
AM Peak Hour					
East Bay					
BART	25,399	2	25,401	23,256	109.2%
AC Transit	1,568	0	1,568	2,829	55.4%
Ferries	810	0	810	1,170	69.2%
<i>Subtotal</i>	<i>27,777</i>	<i>2</i>	<i>27,779</i>	<i>27,255</i>	<i>101.9%</i>
North Bay					
GGT Buses	1,330	1	1,331	2,543	52.3%
Ferries	1,082	0	1,082	1,959	55.2%
<i>Subtotal</i>	<i>2,412</i>	<i>1</i>	<i>2,413</i>	<i>4,502</i>	<i>53.6%</i>
South Bay					
BART	14,150	2	14,153	19,367	73.1%
Caltrain	2,171	1	2,172	3,100	70.0%
SamTrans	255	0	255	520	49.0%
<i>Subtotal</i>	<i>16,576</i>	<i>3</i>	<i>16,579</i>	<i>22,987</i>	<i>72.1%</i>
Total All Screenlines	46,765	6	46,771	54,744	85.4%
PM Peak Hour					
East Bay					
BART	24,488	3	24,491	22,784	107.5%
AC Transit	2,256	0	2,256	3,926	57.5%
Ferries	805	0	805	1,615	49.9%
<i>Subtotal</i>	<i>27,549</i>	<i>3</i>	<i>27,552</i>	<i>28,325</i>	<i>97.3%</i>
North Bay					
GGT Buses	1,384	1	1,385	2,817	49.2%
Ferries	968	1	969	1,959	49.5%
<i>Subtotal</i>	<i>2,352</i>	<i>2</i>	<i>2,354</i>	<i>4,776</i>	<i>49.3%</i>
South Bay					
BART	13,500	4	13,504	18,900	71.5%
Caltrain	2,377	1	2,378	3,100	76.7%
SamTrans	141	0	141	320	44.1%
<i>Subtotal</i>	<i>16,018</i>	<i>5</i>	<i>16,023</i>	<i>22,320</i>	<i>71.8%</i>
Total All Screenlines	45,919	10	45,929	55,421	82.9%

Note

Bold indicates that the capacity utilization is greater than the 100 percent standard.

Source: SF Planning Department, 2015 and 2016, LCW Consulting, 2016

the project contribution would not be substantial (three transit trips out of a total of 24,491 trips = 0.01 percent). Therefore, these contributions to the PM peak hour regional screenlines would not be considered a significant impact. No mitigation is necessary.

Transit Operations

The proposed project or its variant does not propose any driveways on Van Ness Avenue or Market Street, and therefore would not conflict or delay transit vehicles operating on Van Ness Avenue (47 Van Ness and 49 Van Ness-Mission) and Market Street (6 Parnassus, 7 Haight-

Noriega, 7R Haight-Noriega Rapid bus routes and the F Market & Wharves historic streetcar). In addition, the proposed shared street on Oak Street between Van Ness Avenue and Franklin Street and the contraflow fire lane on Franklin Street would not substantially affect traffic operations of nearby streets and intersections in the vicinity of the project site as to affect transit operations on Van Ness Avenue or Market Street.

Conclusion

The project-generated transit trips would not substantially affect the capacity utilization of local or regional transit, and would not result in conflicts or vehicle delays due to project-generated vehicles that would affect the operations of the adjacent and nearby Muni bus routes. Therefore, the transit impacts of the proposed project or its variant would be less than significant. No mitigation is necessary. The proposed project or its variant would be subject to the Transportation Sustainability Fee, which is assessed on residential and non-residential development to help fund improvements to transit capacity and reliability, as well as bicycle and pedestrian improvements.

Pedestrian Impacts

Impact TR-3: The proposed project or its variant would not result in a substantial overcrowding on public sidewalks, nor create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility on the site and adjoining areas. (*Less than Significant*)

The level of service analysis of the effects of project-generated pedestrian trips on sidewalks and crosswalks in the vicinity of the project site is discussed below, followed by a qualitative discussion of the proposed changes to the immediate pedestrian network and vehicular access to the project site and their potential to generate hazardous pedestrian conditions or conflicts with traffic.

Sidewalk Level of Service Analysis

Pedestrian trips generated by the proposed project or its variant would include walk trips to and from the new uses, plus walk trips to and from the bus stops and the Muni Van Ness station. During the weekday PM peak hour, the new uses would add about 249 net-new pedestrian trips to the sidewalks and crosswalks in the vicinity of the project site (including 158 trips destined to and from the transit lines and 91 walk/other trips – see **Table 4.C.10** on p. 4.C.40). During the midday peak hour, the project would generate fewer pedestrian trips than during the PM peak hour; however, as a conservative analysis, the same number of trips as generated during the PM peak hour was used for the midday analysis (i.e., 249 net-new pedestrian trips).³⁴ These

³⁴ During the midday peak hour, residential trip generation would be about 44 percent of the PM peak hour trip generation (Pushkarev and Zupan, *Urban Space for Pedestrians*).

pedestrian trips would be dispersed throughout the study area, depending upon the origin and destination of each trip

The results of the pedestrian analysis for Existing plus Project/Variant conditions for the weekday midday and PM peak hours are presented in **Table 4.C.16: Sidewalk Pedestrian Level of Service – Market Street Adjacent to the Project Site – Existing plus Project/Variant Conditions – Weekday Midday and PM Peak Hours**. During the weekday midday and PM peak hours, the addition of the new pedestrian trips on the Market Street sidewalk adjacent to the project site would remain at LOS C or better. Therefore, the proposed project or its variant would incrementally increase pedestrian volumes on adjacent sidewalks but not to a level that would substantially affect pedestrian flows.

Table 4.C.16: Sidewalk Pedestrian Level of Service – Market Street Adjacent to the Project Site^a – Existing plus Project/Variant Conditions – Weekday Midday and PM Peak Hours

Analysis Period	Existing		Existing plus Project/Variant	
	p/m/f ^b	LOS	p/m/f ^b	LOS
Weekday Midday Peak Hour	2.0	B	2.7	C
Weekday PM Peak Hour	3.3	C	4.0	C

Note:

^a Pedestrian analysis conducted at the most constrained location adjacent to the project site (i.e., between the building at the property line and the Muni Van Ness station stairway/escalator).

^b p/f/m = pedestrians per foot per minute

Source: LCW Consulting, 2016

Oak Street Shared Street and Oak Plaza

The shared street design of Oak Street adjacent to the project site incorporates numerous elements to minimize conflicts between vehicles and pedestrians traveling on Oak Street. These elements include visual narrowing of the travel lane for vehicles by raising the shared street by 2 inches above street level, and raising the proposed Oak Plaza and adjacent north sidewalk by an additional 2 inches. Special pavement would define the vehicular access path. In addition, street furniture, including benches and planters, would further define the shared space. Both the pedestrian plaza and the shared street would be distinguished from the vehicle-only Oak Street roadway to the west of the proposed streetscape improvement area by a distinctive paving pattern. Pedestrian crosswalks would be located on both ends of the shared street. A shared street sign would be placed at the Van Ness Avenue entrance to the shared street, and a Yield to Pedestrians sign could be added to reinforce the transition in the early stages. Thus, the shared street would not create potentially hazardous conditions for pedestrians traveling on Oak Street between Van Ness Avenue and Franklin Street.

It is not anticipated that there would be substantial conflicts between pedestrians and vehicles on Oak Street. As noted above, pedestrian-only areas protected from vehicular traffic would be clearly defined, and sidewalks on the north and south side of the street would be maintained to provide continuous pedestrian access between Van Ness Avenue and Franklin Street, as under existing conditions. Because this section of Oak Street between Van Ness Avenue and Franklin Street is one-way westbound, whereas Oak Street to the west is one-way eastbound, and because the number of on-street parking spaces would be reduced, vehicles accessing this segment of Oak Street would be local traffic related to land uses on the project block.

The sidewalk on Van Ness Avenue would remain similar to existing conditions; however, there would be an additional pedestrian area connecting with Oak Plaza that would extend about 28 feet from the property line to the building. This would provide a larger pedestrian area on Van Ness Avenue and Market Street.

Driveway Operations

Vehicular access to the proposed project parking garage would be via a 24-foot-wide driveway on Oak Street located about 160 feet west of Van Ness Avenue, and two car elevators would be provided for valet operators to bring vehicles to and from the below-grade parking floor. As noted in Impact TR-1, the queuing assessment of the garage access operations indicated that the queue would exceed the three on-site queue storage spaces infrequently, and in those circumstances, the vehicles could queue on Oak Street at the approach to the garage entrance, or valets could store vehicles in the passenger loading zone on the south side of Oak Street. The proposed project's garage operations would, therefore, not constrain pedestrians on the sidewalk or within the shared street or vehicles traveling westbound on Oak Street.

Contraflow Fire Lane on Franklin Street between Oak and Page/Market Streets

The proposed project includes implementation of a fire lane on Franklin Street, which would not affect the pedestrian network or conditions in the project vicinity. However, with implementation of the fire lane, fire trucks exiting SFFD Station 36 would no longer travel contraflow (i.e., eastbound) within the westbound travel lane on Oak Street between Franklin Street and Van Ness Avenue, which would enhance the pedestrian conditions on Oak Street.

The project variant would not include the proposed Franklin Street fire lane, and instead SFFD fire trucks would continue to travel eastbound within the westbound travel lane on Oak Street to access Market Street east of Franklin Street, as under existing conditions. Fire truck access through the shared street would not substantially affect pedestrians, as pedestrian-only areas protected from vehicular traffic would be provided as part of the Oak Plaza and shared street design.

Relocation of Muni Van Ness Station Elevator

The proposed project would relocate the existing Muni Van Ness station elevator from the project site facing Van Ness Avenue to One South Van Ness Avenue, while the project variant would keep the Muni elevator at or near its existing location in the southeast corner of the proposed Oak Plaza. The relocation of the Muni Van Ness station elevator would minimally affect pedestrian walking distances, and therefore would not substantially affect pedestrian access to the station.

Conclusion

Overall, while the addition of project-generated pedestrian trips would increase pedestrian volumes on adjacent streets, the additional trips would not substantially affect pedestrian levels of service. The Oak Street streetscape improvements, including the shared street design adjacent to the project site, would not create potentially hazardous conditions for pedestrians or otherwise interfere with pedestrian accessibility to the site and adjoining areas. Therefore, the impacts of the proposed project or its variant on pedestrian levels of service on adjacent sidewalks and on pedestrian safety would be less than significant. No mitigation is necessary.

Bicycle Impacts

Impact TR-4: The proposed project or its variant would not result in potentially hazardous conditions for bicyclists, or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas. (*Less than Significant*)

The proposed project or its variant would provide 310 Class 1 and 60 Class 2 bicycle parking spaces.³⁵ All 310 Class 1 bicycle parking spaces would be located within a secured room in the second level. The bicycle parking would be accessed through the freight/loading entrance on Oak Street (at the northwest corner of the project site), along a freight/loading corridor, through a vehicle queuing area in the garage and into a designated valet room. The bicycle valet operator would then transport the bicycle to the second-level bicycle storage room via a dedicated bicycle elevator. Residents would also have the option of taking their bicycles to the bicycle storage room via the Oak Street freight/loading entrance, through the freight/loading corridor, and to the dedicated bicycle elevator. The 60 Class 2 bicycle spaces would be located on sidewalks on Oak Street (22 spaces) and Market Street (38 spaces), subject to SFMTA approval.

³⁵ Class 1 Bicycle Parking Spaces are defined in Planning Code Section 155.1(a) as “Facilities which protect the entire bicycle, its components and accessories against theft and inclement weather, including wind-driven rain.” Examples include lockers or monitored parking. Class 2 bicycle parking is provided on racks.

Per Planning Code Section 155.2 the proposed project would be required to provide 153 Class 1 and 16 Class 2 bicycle parking spaces for the 310 dwelling units, and two Class 2 spaces for the retail/restaurant uses, for a total of 153 Class 1 and 18 Class 2 bicycle parking spaces. Because the proposed project or its variant would provide 310 Class 1 and 60 Class 2 bicycle parking spaces, the proposed project or its variant would meet and exceed the Planning Code requirements.

The project site is within convenient bicycling distance of office and retail buildings in the Civic Center and downtown San Francisco. Due to proximity, it is anticipated that a portion of the 42 weekday AM peak hour person trips and the 44 weekday PM peak hour person trips identified as “other” trips would be bicycle trips (see **Table 4.C.10** on p. 4.C.40).

There are no bicycle routes on Oak Street adjacent to the project site. Proposed modifications to Oak Street include a 14-foot-wide shared lane along the northern edge of the plaza that would also accommodate bicycles. Although the proposed project would result in an increase in the number of vehicles in the vicinity of the project site (up to 132 vehicle trips during the AM peak hour and 171 vehicle trips during the PM peak hour), this increase would not be substantial enough to affect bicycle travel in the area. Therefore, impacts of the proposed project or its variant on bicyclists traveling to and from the project site as well as those traveling on the immediate roadway network would be less than significant. No mitigation is necessary.

Loading Impacts

Impact TR-5: The loading demand for the proposed project or its variant would be accommodated within the proposed on-site loading facilities, and would not create potentially hazardous conditions or significant delays for traffic, transit, bicyclists, or pedestrians. (*Less than Significant*)

Loading Supply and Demand

San Francisco Planning Code Section 152.1 provides requirements for off-street loading spaces within a C-3 zoning district. For the residential uses, the proposed project or its variant would be required to provide two on-site loading spaces. No loading spaces would be required for the restaurant/retail use because it would have less than 10,000 gross square feet (gsf) of space. The proposed project or its variant would provide one truck and two service vehicle spaces (per Planning Code Section 153(a)(6), two service vehicle spaces could be substituted for one truck space). The proposed project or its variant would meet Planning Code Section 152.1 requirements and the minimum dimensions for loading spaces required by Planning Code Section 154(b); however, because the two service vehicle spaces would not be independently accessible, the project sponsor would request an exception to the loading space requirement as part of the project approvals.

The new uses associated with the proposed project would generate about 28 delivery/service vehicle-trips to the project site per day, which corresponds to a demand for two loading space during the peak hour of loading activities and one space during the average hour of loading activities. The loading demand would be generally split between the residential and restaurant uses, and would be accommodated on-site. In addition, trucks serving the project site would be able to use the existing on-street recessed commercial loading bay on Market Street and the planned on-street commercial loading space to the west of the project site for the 1554 Market Street building.

As part of implementation of the Franklin Street fire lane, two on-street metered commercial loading spaces on Franklin Street adjacent to the 20 Franklin Street building would be removed. Trucks making deliveries to the residential and ground-floor retail uses would need to use the existing recessed commercial loading bay on Market Street directly east of the building. Because a physically separated contraflow fire lane would be provided directly adjacent to the curb on the east side of Franklin Street, and because of the high volume of vehicles on northbound Franklin Street throughout the day, it is not anticipated that the removal of the on-street commercial loading spaces would result in double-parking along Franklin Street. As noted in “Loading Conditions” on p. 4.C.23, the existing on-street recessed commercial loading bay on Market Street is about 130 feet in length, has a “No Standing Except Trucks with at Least 6 Wheels, 30 Minutes at All Times” restriction, and is able to accommodate about three trucks. Since it is anticipated that many deliveries to the restaurant and retail project site would occur via smaller trucks, two improvement measures are identified below to facilitate accommodation of all project loading/unloading activities on Market Street.

Residential Move-In and Move-Out Activities

Residential move-in and move-out activities are anticipated to occur from the on-site loading dock accessed at the northwest edge of the proposed project, from the recessed commercial loading bay on Market Street (accessed via a service corridor between Market Street and the elevator core) and from the 40-foot-long commercial loading and passenger loading/unloading zone on the south side of Oak Street in front of the 1546-1564 Market Street site (access between the elevator core and Oak Street would be via the garage entry/loading area). The project sponsor anticipates that move-in and move-out activities would occur Monday through Friday, throughout the day, with the exception of the morning and evening peak periods; on Saturdays between 11:00 AM and 7:00 PM; and on Sundays between 8:00 AM and 3:00 PM. Because move-in and move-out activities typically entail multiple hours of activity and could occur via large trucks that can occupy the majority of the recessed commercial loading bay on Market Street, an improvement measure is identified below to ensure that the existing recessed commercial loading bay on Market Street is available throughout the day for commercial loading/unloading activities on Market Street.

Trash, Recycling and Compost Pick-Up

Trash, recycling, and compost for residential, retail, and restaurant uses would be stored on-site within a trash/recycling/compost room on the ground floor, which would be accessed via an internal corridor to Market Street. Trash, recycling, and compost chutes on each floor would lead into the ground-floor trash/recycling/compost room. For pick-up, the property management company would cart the trash, recycling, and compost to a designated small staging area adjacent to the vehicle elevator on the southwest corner of the project site on Market Street, and the trash collection company personnel would retrieve the trash containers by accessing the building from Market Street or from Oak Street via the garage/loading area. The same protocol would be in place for the variant.

Passenger Loading and Unloading

As part of the proposed Oak Plaza improvements, a passenger loading/unloading zone approximately 60 feet in length, and accommodating three vehicles, would be provided on the south curb of Oak Street adjacent to the project site and in the vicinity of the residential lobby entrance. It is anticipated that this proposed passenger loading/unloading zone would accommodate the passenger loading demand associated with the proposed project.

As part of implementation of the Franklin Street fire lane, a passenger loading/unloading zone serving the 20 Franklin Street building would be removed, and passenger loading/unloading activities could be conducted within the existing recessed commercial loading bay on Market Street directly east of that building. As noted above, because a physically separated contraflow fire lane would be provided directly adjacent to the curb on the east side of Franklin Street, and because of the high volume of vehicles on northbound Franklin Street throughout the day, it is not anticipated that the removal of the passenger loading/unloading zone would result in double-parking along Franklin Street.

Conclusion

In summary, the proposed project's or its variant's commercial loading demand would be accommodated on-site, and adequate provisions would be included to accommodate passenger loading/unloading and trash/recycling/compost pick-up, and move-in and move-out activities. In addition, the current demand for the existing on-street commercial loading spaces on Oak and Franklin streets, and a passenger loading/unloading zone on Franklin Street, would be accommodated within other nearby on-street commercial loading spaces on Market Street, and within the planned commercial loading space on Oak Street to the west of the project site. Thus, the proposed project or its variant would accommodate the freight delivery and service vehicle loading demand and would not create potentially hazardous conditions or significant delays for

traffic, transit, bicyclists, or pedestrians, and therefore the proposed project or its variant would have less-than-significant impacts on loading. No mitigation is necessary.

While the loading impacts of the proposed project or its variant would be less than significant, **Improvement Measure I-TR-B: Revision of Truck Restrictions on Market Street**, **Improvement Measure I-TR-C: Removal of Flexible Bollards on Market Street**, and **Improvement Measure I-TR-D: Loading Operations Plan**, presented below, are identified to further reduce the proposed project's or its variant's less-than-significant impacts related to loading. The Planning Commission may consider adopting these improvement measures as conditions of project approval.

Improvement Measure I-TR-B: Revision of Truck Restrictions on Market Street

As an improvement measure to ensure that deliveries destined to the ground-floor restaurant and retail uses are able to be accommodated within the existing recessed commercial loading bay on Market Street, the SFMTA could revise the existing use restriction from a "No Standing Except Trucks with at Least 6 Wheels, 30 Minutes at All Times" to a "No Standing Except Trucks Loading/Unloading, 30 Minutes at All Times".

Improvement Measure I-TR-C: Removal of Flexible Bollards on Market Street

As an improvement measure to ensure that trucks would be able to pull in fully to the existing recessed commercial loading bay on Market Street adjacent to the project site, the placement of the flexible safety bollards separating the existing bicycle lane from the adjacent travel lane could be reviewed to determine if one or more of the bollards could be removed.

Improvement Measure I-TR-D: Loading Operations Plan

As an improvement measure to reduce potential conflicts between driveway operations, including loading activities, and pedestrians, bicycles, and vehicles on Oak and Market streets, the project sponsor could prepare a Loading Operations Plan, and submit the plan for review and approval by the Planning Department and the SFMTA. As appropriate, the Loading Operations Plan could be periodically reviewed by the sponsor, the Planning Department, and the SFMTA and revised if feasible to more appropriately respond to changes in street or circulation conditions.

The Loading Operations Plan would include a set of guidelines related to the operation of the Oak Street driveways into the loading facilities, and large truck curbside access guidelines, and would specify driveway attendant responsibilities to ensure that truck queuing and/or substantial conflicts between project loading/unloading activities and pedestrians, bicyclists, transit and autos do not occur. Elements of the Loading Operations Plan may include the following:

- Commercial loading for the project should be accommodated on-site, within on-street commercial loading spaces along Market Street and on-street freight loading/drop-off spaces on the north side of Oak Street. Loading activities should comply with all posted time limits and all other posted restrictions.

- Double parking or any form of illegal parking or loading should not be permitted on Oak or Market streets. Working with the SFMTA Parking Control Officers, building management should ensure that no loading activities occur within the Oak Street pedestrian plaza, or within the Market Street bicycle lanes, or upon any sidewalk, or within any travel lane on either Market, Franklin, or Oak streets.
- All move-in and move-out activities for both the proposed project and the adjacent 1554 Market Street residential project should be coordinated with building management for each project. If necessary, building management should request a reserved curbside permit from the SFMTA in advance of move-in or move-out activities.³⁶
- Reserved curb permits along Oak Street should be available throughout the day, with the exception of the morning and evening peak periods on weekdays, or 60 minutes following the end of any scheduled events at any adjacent land uses on the project block of Oak Street or at the proposed pedestrian plaza, whichever is later, to avoid conflicts with commercial and passenger loading needs for adjacent land uses and the proposed pedestrian plaza. Weekend hours should not be restricted, with the exceptions that if events are planned on weekend days at adjacent land uses on the project block or within the pedestrian plaza, reserved curb permits should be granted for 60 minutes following the end of any scheduled events at any adjacent land uses on the project block of Oak Street or at the proposed pedestrian plaza.
- The granted hours of reserved curbside permits should not conflict with posted street sweeping schedules.
- The HOA should make commercially reasonable efforts to request of the service provider that all trash, recycling and compost pick-up activity should be scheduled to occur only during non-AM and PM peak hours (9 am to 3:30 pm and 6 pm to 7 am).
- Trash bins, dumpsters and all other containers related to refuse collection should remain in the building at street level until the arrival of the collection truck. Refuse should be collected from the building via Market Street, and bins should be returned into the building. At no point should trash bins, empty or loaded, be left on Market Street or Oak Street on the sidewalk, roadway, or proposed pedestrian plaza.

Implementation of **Improvement Measures I-TR-B, I-TR-C, and I-TR-D** would not result in any secondary transportation-related impacts.

³⁶ Information on SFMTA temporary signage permit process available online at <https://www.sfmta.com/services/streets-sidewalks/temporary-signage>

Emergency Vehicle Access Impacts

Impact TR-6: The proposed project or its variant would not result in significant impacts on emergency vehicle access. (*Less than Significant*)

Contraflow Fire Lane on Franklin Street between Oak and Page/Market Streets

As part of the proposed project, a contraflow fire lane would be provided on the east side of Franklin Street for fire trucks exiting SFFD Station 36 and traveling southbound on Franklin Street between Oak and Page/Market streets. The fire lane would be 14 feet wide, painted red, and separated from the three northbound travel lanes by 3-foot-wide raised travel lane separators. On-street parking on Franklin Street between Oak and Market/Page streets would be removed, and the three northbound travel lanes would be shifted to the west: the westernmost travel lane would be 12 feet wide, while the remaining two travel lanes would be 11 feet wide. Thus, with implementation of the fire lane, vehicular travel on Franklin Street would remain the same under existing conditions.

Two of the three existing driveways on the east side of Franklin Street would be eliminated. The northernmost driveway, fronting an existing parking lot at 98 Franklin Street owned by the French American International School, would remain. Access to the parking lot would be preserved by the driveway on the south side of Oak Street nearest to Franklin Street as well as by an opening in the Qwick Kurb raised travel lane separators, allowing access to the driveway across the fire lane. The remaining two driveways, fronting an existing auto garage at 22-24 Franklin Street, would be eliminated as part of a proposed residential project that is currently under environmental review.

In addition, the stop line for westbound Page Street at Franklin Street would be eliminated. At the red light, vehicles destined to Page Street from westbound Market Street would stop at the existing stop line to the east (aligned with 12th Street), and access from northbound 12th Street onto westbound Page Street would be eliminated. Implementation of the fire lane would require that all northbound vehicles on 12th Street between South Van Ness Avenue and Market Street (one block approximately 600 feet in length) turn right onto Market Street eastbound. Thus, vehicles traveling northbound on 12th Street would no longer be able to cross Market Street to access westbound Page Street (note that access from 12th Street to westbound Market Street is currently prohibited). The intersection of 12th/Market would be converted from signal control to a stop sign, and a "Right Turn Only" sign would be added. Vehicles destined for westbound Page Street would either turn right onto Market Street (or travel southbound on 12th Street) to access southbound South Van Ness Avenue to Otis Street, would continue on westbound Otis Street to northbound Gough Street, and would access the eastbound Market Street turning lanes onto northbound Franklin Street northbound as well as westbound Page Street. There are a limited number of vehicles turning left from 12th Street onto Page Street (e.g., fewer than 15 vehicles

during the PM peak hour) that would be affected by this restriction, and the rerouting of these vehicles would not substantially affect operations of adjacent streets and intersections.

The traffic signal at the intersection of Franklin/Page/Market would be reconfigured to accommodate the emergency vehicle override and to eliminate the northbound 12th Street movement across Market Street. Signal preemption equipment and programming would be installed at the fire station, at the traffic signal, and on the fire trucks, and it is anticipated that a full traffic signal upgrade would be required to accommodate the signal preemption.

The detailed design for the proposed contraflow fire lane on Franklin Street would be subject to review and approval by the SFMTA's Transportation Advisory Staff Committee (TASC) for permanent changes to sidewalks and roadways. TASC is an interdepartmental committee that includes representatives from Public Works, SFMTA, the Police Department, and the Planning Department.

Emergency Vehicle Access

With implementation of the fire lane on Franklin Street, fire trucks would no longer travel contraflow (i.e., eastbound) within the westbound travel lane on Oak Street between Franklin Street and Van Ness Avenue, as under existing conditions. However, emergency vehicle access to this segment of Oak Street would be maintained. The proposed Oak Plaza would be designed to provide a 20-foot-wide emergency access zone, which includes a 14-foot-wide shared street and 6 feet of additional clearance for emergency access to and from Van Ness Avenue. These dimensions meet the Better Streets Plan requirements for emergency vehicle access. On Oak Street, the rolled curb cuts at the east and west ends of the plaza would allow emergency vehicles to cross the plaza when necessary. Thus, emergency vehicles would be accommodated with the proposed Oak Plaza and the shared street.

The proposed Oak Plaza and the intersection of Market/Polk would include vertical structural wind screen features (canopies) that would buffer ground-level wind speeds to enhance pedestrian safety and comfort and would serve as large-scale public art sculptures. The canopies would be freestanding trellis-like structures with cantilevered segments, supported by vertical columns. None of the proposed vertical column supports would be in the 20-foot-wide emergency access zone (i.e., the 14-foot-wide lane, plus 6 feet of unobstructed plaza area) or the reconfigured Oak Street roadway. However, the canopies may cantilever over portions of these areas. The canopies would be designed to meet San Francisco Fire Code Section 5.01 for emergency access, which requires a minimum vertical clearance of 13 feet, 6 inches. In addition, the canopies would not interfere with fire protection for the building, because the proposed building would be a Type I-A building (fire-resistive non-combustible high-rise building) with respect to fire protection, and would not require fire truck aerial (i.e., ladder) operations.

Similarly, at the intersection of Market/Polk, the vertical clearance of the proposed canopy would be approximately 20 to 30 feet and would be within the sidewalk right-of-way so as not to interfere with vehicular travel, including emergency vehicle access, on Polk or Market streets.

With the circulation changes and project design as proposed, emergency service providers would continue to be able to pull up to the project site, as well as to other buildings on the project block, from either Market or Oak streets. Emergency vehicles departing from SFFD Station 36 on Oak Street west of Franklin Street would be able to use the new exclusive fire lane on Franklin Street, but also would continue to have access onto Oak Street and across Oak Plaza. Therefore, the proposed project's impacts on emergency vehicle access would be less than significant.

Project Variant

Emergency vehicle access conditions associated with the project variant would be the same as under existing conditions. As described above, the streetscape improvements on Oak Street would be designed so that emergency service providers would continue to be able to pull up to the project site, as well as to other buildings on the project block, from either Market or Oak streets, and emergency vehicles departing from SFFD Station 36 on Oak Street west of Franklin Street would continue to have access onto Oak Street and across Oak Plaza to access Van Ness Avenue and Market Street. Therefore, impacts of the project variant on emergency vehicle access, similar to the proposed project, would be less than significant. No mitigation would be necessary.

Conclusion

Implementation of the proposed project or its variant, including the proposed fire lane on Franklin Street and the proposed Oak Street shared street and associated streetscape improvements, would not result in substantial changes to adjacent travel lanes. Emergency vehicle access to the project site and to existing buildings on the north side of Oak Street would remain unchanged from existing conditions. Emergency service providers would continue to be able to pull up to the project site from Oak Street or Market Street. Therefore, the proposed project or its variant would not limit emergency vehicle access to the project site, and nearby vicinity and emergency vehicle access impacts would be less than significant.

Construction Impacts

Impact TR-7: The proposed project or its variant would not result in substantial interference with pedestrian, bicycle, or vehicle circulation and accessibility to adjoining areas, and would not result in potentially hazardous conditions. (*Less than Significant*)

The construction impact assessment is based on currently available information from the project sponsor, and professional knowledge of typical construction practices citywide. Prior to

construction, as part of the construction application phase, the project sponsor and construction contractor(s) would be required to meet with Public Works and SFMTA staff to develop and review truck routing plans for demolition, disposal of excavated materials, materials delivery and storage, as well as staging for construction vehicles. The construction contractor would be required to meet the *City of San Francisco's Regulations for Working in San Francisco Streets* (the Blue Book) in effect when construction is proposed to begin, including requirements regarding sidewalk and lane closures, and would meet with SFMTA staff to determine if any special traffic permits would be required.³⁷ In addition to the regulations in the Blue Book, the contractor would be responsible for complying with all City, state and federal codes, rules and regulations.

Adjacent to the south side of the project site is a BART easement and Zone of Influence³⁸ located in the subway tunnel below Market Street. Some elements of below-grade project construction may occur within the Zone of Influence, meaning that there would be specific shoring requirements as outlined in the *General Guidelines for Design and Construction Over or Adjacent to BART's Subway Structures*.³⁹ The BART Real Estate Department coordinates permits and plan review for any construction on, or adjacent to, the BART right-of-way. The project sponsor would be required to follow these procedures and conform to the standards set forth by BART with regard to the construction of the below-grade project elements that are adjacent to the BART easement or within the BART Zone of Influence.

It is anticipated that construction of the proposed project or its variant would take approximately 32 months. There would be six primary construction phases, which would partially overlap:

- Demolition – two months
- Excavation and shoring – three months
- Foundation and below-grade construction – three months
- Base building construction – 14 months
- Exterior finishing – 14 months
- Interior finishing – 21 months

The streetscape improvements on Oak Street are projected to be completed within two months.

³⁷ The *SFMTA Blue Book*, 7th Edition, is available online through SFMTA (www.sfmta.com).

³⁸ The Zone of Influence is the designated area on either side of the rails that could be affected by construction activities in the vicinity of the tracks, and is defined in order to avoid construction-related impacts.

³⁹ *General Guidelines for Design and Construction Over or Adjacent to BART's Subway Structures*, BART, October 2003.

Construction-related activities would typically occur Monday through Friday, between 7:00 AM and 7:00 PM, although some work is anticipated to occur on Saturdays. For example, pouring concrete for the foundation mat would most likely occur during a continuous 24-hour period on a Saturday. Construction is not anticipated to occur on Sundays or major legal holidays, but may occur on an as-needed basis. The hours of construction would be stipulated by the Department of Building Inspection, and the contractor would need to comply with the San Francisco Noise Ordinance and the Blue Book, including requirements to avoid peak hour construction activities on adjacent streets.⁴⁰

Based on information obtained from the project sponsor, construction staging would occur within the adjacent parking lane on Oak Street. The Oak Street sidewalk adjacent to the project site would be closed during the construction period, and pedestrian traffic would need to be shifted to the sidewalk on the north side of the street. No complete sidewalk closures are anticipated on Market Street. Construction activities may require temporary travel lane closures, which would be coordinated with the City in order to minimize the impacts on local traffic, transit, pedestrians and bicyclists. Construction activities, such as delivery of large construction equipment and oversized construction materials that would require one or more temporary lane closures on Market Street, would need to be conducted on weekend days when pedestrian, transit and traffic activity is lower. Prior to construction, the project contractor would work with Muni's Street Operations and Special Events Office to coordinate construction activities and reduce any impacts to transit operations on Van Ness Avenue or Market Street. Any temporary sidewalk or traffic lane closures would be required to be coordinated with the City in order to minimize impacts on traffic. In general, lane and sidewalk closures are subject to review and approval by SFMTA's TASC for permanent travel lane and sidewalk closures, and the Interdepartmental Staff Committee on Traffic and Transportation (ISCOTT) for temporary sidewalk and travel lane closures. Both TASC and ISCOTT are interdepartmental committees that include Public Works, SFMTA, Police Department, Fire Department, and Planning Department representatives.

There are no bus stops adjacent to the project site on Oak Street, Van Ness Avenue, or Market Street, and therefore Muni facilities on Van Ness Avenue and Market Street would not be affected. Support poles for the electric overhead catenary wire system are located on Van Ness Avenue and on Market Street, and these would be maintained during project construction.

The proposed project includes relocation of the existing elevator between the street and the Muni Van Ness station to the One South Van Ness Avenue building. As the basement of One South Van Ness Avenue extends fully under the South Van Ness Avenue sidewalk, no excavation would be required. Foundation and structural work would be required at the proposed elevator pit

⁴⁰ The San Francisco Noise Ordinance permits construction activities seven days a week, between 7 AM and 8 PM.

location, which would accommodate two elevators. There is a slight elevation difference between the existing basement floor and the elevation of the finished walkway from the elevators to the Muni Van Ness station. The basement floor would be demolished between the elevators and the Muni Van Ness station to access the lower foundation below the existing basement floor. A new walkway floor would be constructed at the matching elevation to the Muni Van Ness station. An opening would then be cut in the perimeter concrete wall of the station to provide access to the new elevator in a similar configuration to the existing elevator. The overall construction duration for site revisions, structural work, and elevator construction would be 8 months, which would be completed before the existing elevator is demolished, unless other temporary accessibility access is provided with approval of SFMTA. Therefore, under the proposed project, elevator access to the Muni Van Ness station would not be interrupted.

The BART Real Estate Department coordinates permits and plan review for any construction on, or adjacent to, the BART right-of-way, which includes the Muni Van Ness station. This coordination would be conducted to ensure that construction of the new elevator and connection would not impact or damage the Muni subway station or tracks.

During the construction period, there would be a flow of construction workers into and out of the site. As shown on **Table 4.C.17: Summary of Construction Phases and Duration, and Daily Construction Trucks and Workers by Phase**, there would be an average of between 6 and 40 construction workers per day at the project site. The trip distribution and mode split of construction workers are not known. However, it is anticipated that the addition of the worker-related vehicle or transit trips would not substantially affect transportation conditions, as any impacts on local intersections or the transit network would be similar to, or less than, those associated with the proposed project and would be temporary in nature. Construction workers who drive to the site would cause a temporary parking demand. The time-limited and residential parking restrictions in the vicinity of the project site limit legal all-day parking by construction personnel. Construction workers would park in nearby parking facilities such as the SFMTA Performing Arts Garage (located on Grove Street between Franklin and Gough streets) that currently has some availability during the day.

During the construction period, there would be a flow of construction-related trucks into and out of the site. As shown on **Table 4.C.17**, there would be an average of between 81 and 400 construction trucks traveling to the site on a daily basis, with the greatest number of construction truck trips occurring during the foundation mat pour (about 400 truck trips for a one-day period). The impact of construction truck traffic would be a temporary lessening of the capacities of streets due to the slower movement and larger turning radii of trucks, which may affect both

Table 4.C.17: Summary of Construction Phases and Duration, and Daily Construction Trucks and Workers by Phase

Phase	Duration (months)	Number of Daily Construction Trucks		Number of Daily Construction Workers	
		Peak	Average	Peak	Average
Demolition	2	100	75	10	6
Excavation and Shoring	3	120	80	40	20
Foundation & Below-Grade Construction	3	400	8	50	20
Base Building	14	16	8	100	20
Exterior Finishing	14	4	1	30	10
Interior Finishing	21	4	1	120	40

Source: Build Inc., January 2015

traffic and Muni operations. It is anticipated that a majority of the construction-related truck traffic would use Van Ness Avenue southbound to access Oak Street, and Gough Street or Octavia Boulevard with U.S. 101 for South Bay and East Bay destinations. Construction vehicles would enter the site from Oak Street (i.e., not Market Street).

The proposed project includes implementation of a Franklin Street fire lane. Construction of the fire lane, which would involve demarcation of a travel lane with solid red paint and installation of a raised separation for the protected fire access lane (Quick Kurb), would be of limited duration but would require temporary travel lane closure for the one-block segment of Franklin Street between Market/Page and Oak streets. Similar protected lanes, such as the transit-only lanes on Market Street, are often striped or painted on weekends or other non-peak weekday times when traffic volumes are lower on the affected roadway. Construction activities associated with the proposed fire lane include restriping of the northbound travel lanes to shift the travel lanes to the west, striping of the fire access lane, construction of a raised separation, removal of parking meters and driveways, modifications to the traffic signals, and installation of signage. In addition to the travel lane restriping, signal preemption sensors would be installed on the traffic signal at Franklin/Market/Page, new signal heads would be installed in the southbound direction, and general upgrades would be made to the signal to accommodate the preemption (e.g., new poles, conduits between the traffic signal controller and the preemption sensors, underground utility box/pull boxes). During construction of the traffic signal improvements, traffic flow through the intersection would be maintained, but traffic may need to be directed manually. Conduit improvements may require construction within sidewalks adjacent to the traffic signal. As noted above, temporary travel lane and sidewalk closures are required to be coordinated with the City in order to minimize the impacts on local traffic; however, the temporary lane closures would result in vehicle delay for a relatively short period, and some drivers may shift to other potentially less convenient routes to access their destinations.

The project variant would not include the proposed Franklin Street fire lane; instead, SFFD fire trucks would continue to travel eastbound on Oak Street to access Market Street east of Franklin Street, as under existing conditions. Under the project variant, the construction activities described above for implementation of the fire lane and associated traffic signal upgrades would not occur.

In addition, under the project variant, the existing Muni Van Ness station elevator would be located either at or near the existing Muni elevator, within the property line, as opposed to the One South Van Ness Avenue location with the proposed project. Construction of the new elevator at this location would require a period of about four months during which elevator access to the Van Ness station would not be possible. Muni riders would be advised that the elevator would not be available (e.g., via Muni Alerts) and would be directed to use the Muni Civic Center station elevator (about 0.45 mile to the east).

Conclusion

Overall, proposed project construction would maintain pedestrian circulation adjacent to the project site, and would not require travel lane closures for extended durations that would disrupt or substantially delay vehicles, including transit, and bicyclists traveling on Van Ness Avenue and Market Street. Furthermore, construction activities would be required to meet City rules and guidance so that work can be done safely and with the least possible interference with pedestrians, bicyclists, vehicles, and transit, and would therefore not result in potentially hazardous conditions. For the reasons described above, the proposed project or its variant's construction-related transportation impacts would be *less than significant*.

While the construction-related transportation impacts of the proposed project or its variant would be less than significant, **Improvement Measure I-TR-E: Construction Measures**, shown below, is identified to further reduce the less-than-significant impacts related to potential conflicts between construction activities and pedestrians, transit, and autos. The Planning Commission may consider adopting this improvement measure as a condition of project approval.

Improvement Measure I-TR-E: Construction Measures

Construction Management Plan for Transportation –The project sponsor should develop and, upon review and approval by the SFMTA and Public Works, implement a Construction Management Plan addressing transportation-related circulation, access, staging and hours of delivery. The Construction Management Plan would disseminate appropriate information to contractors and affected agencies with respect to coordinating construction activities to minimize overall disruption and ensure that overall circulation in the project area is maintained to the extent possible, with particular focus on ensuring transit, pedestrian, and bicycle connectivity. The Construction Management Plan would supplement and expand, rather than modify or supersede, manual, regulations, or provisions set forth by the SFMTA, Public Works, or other City departments and agencies, and the California Department of

Transportation. Management practices could include: best practices for accommodating pedestrians and bicyclists, identifying routes for construction trucks to utilize, minimizing deliveries and travel lane closures during the AM (7:30 to 9:00 AM) and PM (4:30 to 6:00 PM) peak periods along South Van Ness Avenue and Mission Street (Monday through Friday).

Carpool, Bicycle, Walk, and Transit Access for Construction Workers – To minimize parking demand and vehicle trips associated with construction workers, the construction contractor could include as part of the Construction Management Plan methods to encourage carpooling, bicycle, walk, and transit access to the project site by construction workers (such as providing transit subsidies to construction workers, providing secure bicycle parking spaces, participating in free-to-employee ride matching program from www.511.org, participating in the emergency ride home program through the City of San Francisco (www.sferh.org), and providing transit information to construction workers.

Construction Worker Parking Plan – As part of the Construction Management Plan that would be developed by the construction contractor, the location of construction worker parking could be identified as well as the person(s) responsible for monitoring the implementation of the proposed parking plan. The use of on-street parking to accommodate construction worker parking could be discouraged. The project sponsor could provide on-site parking once the below grade parking garage is usable.

Project Construction Updates for Adjacent Businesses and Residents – As an improvement measure to minimize construction impacts on access to nearby institutions and businesses, the project sponsor would provide nearby residences and adjacent businesses with regularly updated information regarding project construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), travel lane closures, and parking lane and sidewalk closures. The project sponsor could create a web site that would provide current construction information of interest to neighbors, as well as contact information for specific construction inquiries or concerns.

Implementation of **Improvement Measure I-TR-E** would not result in any secondary transportation-related impacts.

Parking Discussion

San Francisco does not consider parking supply as part of the permanent physical environment and therefore does not consider changes in parking conditions to be environmental impacts as defined by CEQA. As explained in **Section 4.A, Introduction**, pp. 4.A.1-4.A.3, SB 743 eliminated parking as an effect that can be considered in determining significant transportation and circulation effects for infill residential projects in transit priority areas. The San Francisco Planning Department acknowledges, however, that parking conditions may be of interest to the public and the decision-makers; therefore, parking is analyzed here for informational purposes.

Project Parking

The proposed project would provide 155 vehicle parking spaces (including six ADA spaces) for the 310 residential units. No off-street parking is proposed for the retail or restaurant uses. As required by Planning Code Section 167, the parking spaces would be sold separately from the purchase fee for dwelling units. Vehicle access would be provided via the parking garage driveway on Oak Street. Two car-share parking spaces would be provided off-site, within 800 feet of the project site, in the 110 Franklin surface parking lot.

The proposed streetscape improvements on Oak Street would eliminate and reconfigure some of the existing on-street parking on Oak Street between Franklin Street and Van Ness Avenue.

Along the north side of Oak Street between Franklin Street and Van Ness Avenue, 18 of the 29 existing diagonal on-street parking spaces would be eliminated, including the ADA parking space and the four passenger loading/unloading spaces. The three existing motorcycle spaces directly east of Franklin Street would also be eliminated. With the proposed project, 11 diagonal parking spaces fronting the 50 Oak Street and 110 Franklin Street properties would remain, a parallel ADA parking space would be provided directly east of Franklin Street, and one parallel passenger loading/unloading space would be provided east of the proposed midblock crosswalk.

On the south side of Oak Street, two parallel parking spaces and four commercial loading spaces adjacent to the project site would be eliminated.

Along the south side of Oak Street adjacent to the project site, the proposed passenger loading/unloading zone approximately 60 feet in length, accommodating three vehicles, would be provided in the vicinity of the residential lobby entrance. In addition, as part of the 1546-1564 Market Street Project, the existing curb cut into that site would be relocated, one general parking space would be eliminated, and a commercial loading zone approximately 40 feet in length is planned to be provided between the 1546-1564 Market Street vehicular driveway and the project site. The three general parking spaces and the four existing motorcycle spaces adjacent to the 98 Franklin Street property would remain, as would the two existing curb cuts/driveways into the surface parking lot currently located at 98 Franklin Street.

With implementation of the Franklin Street fire lane, two on-street parking spaces on the north side of Oak Street west of Franklin Street, and all of the 16 on-street parking spaces on Franklin Street between Oak and Page/Market streets (six on the east side and ten on the west side of the street) would be removed. The on-street parking spaces include one ADA parking space and two metered commercial loading spaces on the east side of Franklin Street. In addition, a passenger loading/unloading zone about 24 feet in length on the east side of Franklin Street in front of the

20 Franklin Street residential building would be eliminated. Two on-street parking spaces on the north side of Oak Street immediately west of Franklin Street would also be removed.

Off-Street Parking Requirements under the Planning Code

Under Planning Code Section 151, the proposed project would be permitted to provide up to one parking space for each four units, and up to 0.5 space per dwelling unit subject to criteria and procedures for a Conditional Use authorization (i.e., up to 155 parking spaces). Off-street parking would not be required for the proposed project's restaurant/retail uses because these uses would be less than 5,000 gsf.

Planning Code Section 155(i) requires that one handicap-accessible parking space be provided for each 25 off-street parking spaces provided. Planning Code Section 166 requires two car-share spaces for 201 or more residential dwelling units, plus one car-share space for every 200 dwelling units over 200. The proposed project or its variant would include 155 parking spaces, including six ADA-accessible parking spaces that would be accessible via the valet operator. In addition, two car-share parking spaces would be provided within 800 feet of the project site, in the surface parking lot at 110 Franklin Street. The proposed project or its variant would, therefore, meet the minimum Planning Code requirements for off-street parking spaces.

Planning Code Section 167 requires that the sale of parking spaces be unbundled from the sale of the residential units. The proposed project or its variant would meet this requirement.

Parking Demand

Parking demand consists of both long-term demand (typically residents and employees) and short-term demand (typically visitors). The parking demand calculations are based on the methodology for calculating parking demand presented in the *SF Guidelines*. For the proposed residential units, the long-term parking demand is based on the number and size of the units, with a rate of 1.1 parking spaces per unit for studios and one-bedroom units and 1.5 parking spaces per unit for two-bedroom and larger units. For the restaurant/retail use, the long-term parking demand is based on the number of employees and their estimated travel modes, and the short-term parking demand is based on the total estimated daily patron/visitor vehicle trips and a turnover rate of approximately 5.5 vehicles per parking space. The results of these calculations may overestimate the actual parking demand generated by the proposed project and therefore are conservative.

Table 4.C.18: Weekday Midday and Overnight Parking Demand by Land Use presents the estimated new weekday midday and evening parking demand for the proposed project. During the overnight hours, the 310 residential units would generate a parking demand for 402 spaces. During the midday period, the new residential units would generate a parking demand of 321 long-term spaces (i.e., about 80 percent of the overnight demand), and the restaurant/retail uses

would generate a parking demand for about 13 spaces, for a total midday demand of 334 parking spaces.

Table 4.C.18: Weekday Midday and Overnight Parking Demand by Land Use

Period/Land Use	Long-Term Parking Spaces	Short-Term Parking Spaces	Total
Midday			
Residential	321	0	321
Restaurant/Retail	2	11	13
New Total	323	11	334
Overnight			
Residential	402	0	402

Sources: SF Guidelines 2002, LCW Consulting, 2016

Parking Supply vs. Demand

As discussed above, the proposed project or its variant would generate a total weekday midday demand for 334 parking spaces and overnight demand for 402 long-term spaces.

Table 4.C.19: Proposed Project New Parking Demand and Supply presents the proposed project’s or variant’s parking supply and demand comparisons for the overnight and midday periods.

Table 4.C.19: Proposed Project New Parking Supply and Demand

Analysis Period/Land Use	Supply	Demand	(Shortfall)/Surplus
Midday			
Residential	155	321	(166)
Restaurant/Retail	0	13	(13)
Midday Total	155	334	(179)
Overnight			
Residential	155	402	(247)

Sources: SF Guidelines 2002; LCW Consulting, 2016

Overnight Demand

The long-term residential parking demand generally occurs during the overnight hours. During the overnight period, the 310 residential units would generate a parking demand for about 402 spaces, which, compared to the proposed supply of 155 parking spaces, would result in an unmet parking demand of 247 parking spaces. This demand could be accommodated on street and/or in other nearby garages and surface parking lots in the area (see Table 4.C.8, p. 4.C.25). In addition, due to difficulty in finding on-street parking in the parking study area, some drivers may switch to transit, carpool, bicycle, or other forms of travel.

Midday Demand

During the weekday midday, the residential parking demand is estimated to be about 80 percent of the overnight parking demand, or about 321 spaces. In addition, during the weekday midday, the retail/restaurant uses would generate a parking demand for 13 spaces, for a total midday demand of 334 spaces. Overall, the proposed project or its variant would result in an unmet parking demand during the midday of about 179 parking spaces. While on-street parking is currently well utilized throughout the day, nearby surface parking lots and garages such as the SFMTA Performing Arts Garage have availability throughout the day except during some weekday events. In addition, due to difficulty in finding on-street parking in the parking study area, some drivers may switch to transit, carpool, bicycle, or other forms of travel. The project site is not within an RPP area, and therefore residents would not be eligible for RPP permits.

In addition to the parking demand generated by the proposed land uses, the proposed streetscape improvements would result in a net loss of 21 on-street general parking and commercial loading spaces on Oak Street between Franklin Street and Van Ness Avenue (a net loss of 16 spaces on the north side and seven spaces on the south side of the street) and three motorcycle spaces, while the proposed Franklin Street fire lane would result in a net loss of 18 on-street parking spaces (two on Oak Street west of Franklin Street and 16 spaces on Franklin Street between Oak and Page/Market streets) and a passenger loading/unloading zone. Under the project variant, the 18 on-street parking spaces and the passenger loading/unloading zone on Franklin Street would not be eliminated. The demand associated with the lost on-street spaces would need to be accommodated elsewhere on street or in off-street facilities.

In addition to the unmet parking demand associated with the proposed project or its variant land uses, the parking demand associated with the existing parking spaces on the project site that would be eliminated, and the elimination of on-street parking on Oak and Franklin streets as part of the Oak Street shared street and Franklin Street fire lane, would need to be accommodated elsewhere in off-street facilities and on-street. As a result, off-street and on-street parking occupancy would increase. Due to difficulty in finding on-street parking in the study area, some drivers may park outside of the study area or switch to transit, carpool, bicycle, or other forms of travel. As discussed above, the project site is well served by public transit and bicycle facilities.

Conclusion

The unmet overnight and midday parking demand associated with the proposed project or its variant could be accommodated on-street and in nearby off-street facilities. Because the project site is in an area that is well served by public transit, and bicycle and pedestrian facilities, and garage operations under the proposed project or its variant would not affect Muni bus operations

on Market Street or Van Ness Avenue, the proposed project or its variant would not create hazardous conditions or significant delays affecting traffic, transit, bicycles, or pedestrians.

In summary, parking supply is not considered a permanent physical condition in San Francisco, and changes in the parking supply would not be a significant environmental impact under CEQA. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, who are aware of constrained parking conditions in a given area, shifting to transit, bicycling, or walking. Hence, any secondary environmental impacts that may result from the unmet parking demand of the proposed project or its variant have been addressed in the transportation analysis conducted for the proposed project or its variant and would not be considerable environmental effects.

CUMULATIVE IMPACT EVALUATION

The geographic context for the analysis of cumulative transportation impacts includes the sidewalks and roadways adjacent to the project site, and the local roadway and transit network in the vicinity of the project site. The discussion of cumulative transportation impacts assesses the degree to which the proposed project or its variant would affect the transportation network in conjunction with overall citywide growth and other reasonably foreseeable future projects. See **Section 4.A, Chapter Introduction**, pp. 4.A.5-4.A.12, for the approach to the cumulative analysis and a more detailed description of the development projects. In addition to the reasonably foreseeable future development projects, the cumulative analysis includes planned and proposed transportation network changes. The foreseeable development projects and transportation network changes are those known at this time. The cumulative analysis includes the transportation network changes described below.

Transit Effectiveness Project (renamed Muni Forward)

The SFMTA Board of Directors approved the Transit Effectiveness Project (TEP) on March 28, 2014. The TEP presents a thorough review of San Francisco's public transit system, initiated by SFMTA in collaboration with the City Controller's Office. Muni Forward is aimed at improving reliability, reducing travel times, providing more frequent service, and updating Muni bus routes and rail lines to better match current travel patterns. Muni Forward recommendations include new routes and route realignments, more service on busy routes, and elimination or consolidation of certain routes or route segments with low ridership. Implementation of Muni Forward was initiated in 2015, and components will be implemented based on funding and resource

availability. The following changes are either planned or have already been implemented by the SFMTA for routes in the vicinity of the project site:⁴¹

- Minor frequency changes are planned on the F Market & Wharves, J Church, K Ingleside, L Taraval, M Ocean View, and N Judah.
- 6 Parnassus – The route has been realigned to follow Stanyan Street instead of Masonic Avenue. (Implemented)
- 7/7R Haight-Noriega – The 7R Haight-Noriega Rapid, which operates only in the peak period and peak direction, replaced the 7 Haight-Noriega and provides all-day limited-stop service on Haight Street in both directions. The route makes limited stops between Stanyan and Market streets. The midday frequency changed from 12 to 10 minutes. (Implemented)
- 14 Mission and 14 Mission Rapid – Service will operate using motor coach rather than trolley buses.
- 47 Van Ness – The route will be realigned. It will terminate at Van Ness Avenue and North Point Street and will share a terminal with the 49L Van Ness-Mission Limited. A common terminal for both routes serving Van Ness Avenue will improve reliability by allowing route management from a single point; the North Point segment will be covered by the new Route 11 Downtown Connector. The midday frequency will change from 10 to 9 minutes, and the proposed route change will coordinate with the Van Ness Avenue BRT project (see the description of the Van Ness Avenue BRT project below).
- 49R Van Ness-Mission Limited – The existing route will be redesigned and rebranded as the 49R Van Ness-Mission Limited (as proposed in the Van Ness Avenue BRT project), making local stops on Van Ness Avenue and on Ocean Avenue and limited stops on Mission Street.

In February 2016, SFMTA initiated implementation of the Travel Time Reduction Proposal (TTRP) project on Mission Street between 11th and Randall streets (the 14 Mission Rapid Project). The SFMTA is implementing transit priority and traffic safety improvements to make it safer to walk, to increase the reliability of the 14 Mission, 14R Mission Rapid, and 49 Van Ness-Mission routes, and to ease traffic congestion along the corridor.

Van Ness Avenue Bus Rapid Transit Project

The Van Ness BRT project, approved in December 2013, is a program to improve Muni bus service along Van Ness Avenue between Mission and Lombard streets through the implementation of operational improvements and physical improvements. The operational improvements consist of (1) designating transit-only lanes to allow buses to travel with fewer impediments, (2) adjusting traffic signals to give buses more green light time at intersections, and

⁴¹ SFMTA, Transit Effectiveness Project Implementation Workbook. Available online at <http://www.sfmta.com/fr/news/project-updates/tep-implementation-workbook-outreach-summary-now-available>. Accessed June 23, 2014.

(3) providing real-time bus arrival and departure information to passengers to allow them to manage their time more efficiently. The physical improvements consist of (1) building high-quality and well-lit bus stations to improve passenger safety and comfort, and (2) providing streetscape improvements and amenities to make streets safer and more comfortable for pedestrians and bicyclists who access the transit stations. In the vicinity of the project site, the BRT station in the southbound direction on Van Ness Avenue will be at Market Street, adjacent to the project site, and the curbside bus stop on Van Ness Avenue north of Oak Street will be discontinued. In the northbound direction of South Van Ness Avenue, the BRT station will be at Market Street, and the existing curbside bus stop on South Van Ness Avenue north of Mission Street will be discontinued. The SFMTA completed the Conceptual Engineering Report for the project in June 2014, and is now proceeding with detailed design. BRT service is expected to begin on Van Ness Avenue in 2018.

Polk Street Improvement Project

The SFMTA is finalizing design of streetscape improvements on Polk Street between Union and McAllister streets to create a thriving and active corridor, enhance the pedestrian experience, complement bicycle and transit mobility, and support commercial activities. Interim safety improvements that are part of the overall streetscape improvement have been implemented, including leading pedestrian intervals,⁴² daylighting at signalized and stop-controlled intersections,⁴³ loading zone improvements, new accessible parking spaces, new shared lane markings, and a new right turn on northbound Polk Street at Broadway. The final streetscape design will include protected bikeways in the northbound direction between McAllister and Pine streets; a new green bike lane in the southbound direction between Union and Post streets; upgrades to existing facilities such as green paint, painter buffers, and green-backed sharrows; transit enhancements such as bus stop consolidation and relocation and bus bulbs; and public realm improvements such as landscaping, street lights, and alley enhancements. Construction is scheduled to begin in fall 2016.⁴⁴

⁴² Leading pedestrian intervals typically give pedestrians a 3- to 5-second head start when entering an intersection with a corresponding green signal in the same direction of travel. They also enhance the visibility of pedestrians in the intersection and reinforce their right-of-way over turning vehicles, especially in locations with a history of conflict. An example is the pedestrian signal at the corner of Harrison and Fourth streets.

⁴³ Daylighting at intersections involves creating a no-parking zone at the curbs in front of the crosswalks at an intersection to clear sightlines between pedestrians crossing and oncoming vehicles.

⁴⁴ SFMTA, Polk Street Improvement Project. Information available online at <https://www.sfmta.com/projects-planning/projects/polk-street-improvement-project>. San Francisco Planning Department, Polk Streetscape Project. Information available online at <http://www.sf-planning.org/index.aspx?page=3579#boards>. Accessed August 22, 2016.

Better Market Street Project

The San Francisco Department of Public Works, in coordination with the San Francisco Planning Department and the SFMTA, proposes to redesign and provide various transportation and streetscape improvements to the 2.2-mile segment of Market Street between Octavia Boulevard and The Embarcadero, and potentially to the 2.3-mile segment of Mission Street between Valencia Street and The Embarcadero, to Valencia Street between McCoppin and Market streets, and to 10th Street between Market and Mission streets. Better Market Street Project elements consist of both transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic signals; surface transit, including transit-only lanes, stop spacing, service, stop location, stop characteristics, and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities. Environmental review has recently been initiated and will analyze three possible alternatives for the project. Alternatives 1 and 2 involve redesign and improvement of Market Street only, while Alternative 3 would redesign and improve Mission Street in addition to providing the Alternative 1 improvements to Market Street. Alternatives 1 and 2 each have two design options for bicycle facilities on Market Street. Alternative 1 would remove all commercial and passenger loading zones on Market Street, with the exception of paratransit users, and new commercial loading spaces and passenger loading zones would be created on adjacent cross streets and alleys. Under Alternative 2 some commercial loading spaces and passenger loading zones would remain on Market Street, and some commercial loading spaces and passenger loading zones would be created on adjacent cross streets and alleys. Design and approvals will continue through 2017, and implementation is currently anticipated for completion sometime in 2018.⁴⁵

Methodology

Future 2040 cumulative conditions were estimated based on cumulative development and growth identified by the San Francisco County Transportation Authority's (SFCTA's) San Francisco Chained Activity Model Process (SF-CHAMP) travel demand model, using model output that represents existing conditions and model output that represent 2040 cumulative conditions. The model's 2040 cumulative conditions account for both known development projects and transportation network improvements as well as forecasts of future growth.

⁴⁵ Better Market Street Project information available online at <http://www.bettermarketstreetsf.org/about-common-questions.html>. Accessed February 4, 2015.

Cumulative Traffic Impacts

Impact C-TR-1: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development would not result in significant traffic impacts. (*Less than Significant*)

Vehicle Miles Traveled Analysis

Table 4.C.20: Existing and 2040 Cumulative Daily Vehicle Miles Traveled presents the existing and 2040 cumulative average daily VMT per capita for the residential and retail land uses for the TAZ within which the proposed project is located, as well as the Bay Area regional average. San Francisco 2040 cumulative conditions were projected using a SF-CHAMP model run, using the same methodology as outlined for existing conditions but including residential and job growth estimates and reasonably foreseeable transportation investments through 2040.

Table 4.C.20: Existing and 2040 Cumulative Daily Vehicle Miles Traveled

Land Use	Existing			2040 Cumulative		
	Bay Area Regional Average	Bay Area Regional Average minus 15%	TAZ 588 ^a	Bay Area Regional Average	Bay Area Regional Average minus 15%	TAZ 588
Households (Residential)	17.2	14.6	3.5	16.1	13.7	3.0
Employment (Retail)	14.9	12.6	8.3	14.6	12.4	8.5

Note:

^a The Traffic Analysis Zone (TAZ) in which the project site is located

Source: San Francisco Transportation Authority SF-CHAMP model, 2016

- Projected 2040 average daily VMT per capita for residential land uses is 3.0 for the transportation analysis zone in which the project site is located, TAZ 588. This is 81 percent below the 2040 projected regional average daily VMT per capita of 16.1. Given that the project site is located in an area where VMT is greater than 15 percent below the projected 2040 regional average, the proposed project’s residential uses would not result in substantial additional VMT.
- Projected 2040 average daily VMT per capita for the retail use is 8.5 for TAZ 588. This is 42 percent below the 2040 projected regional average daily VMT per capita of 14.6. Given that the project site is located in an area where VMT is greater than 15 percent below the projected 2040 regional average, the proposed project’s restaurant/retail uses would not result in substantial additional VMT.

Overall, because the project site is located in an area where VMT is greater than 15 percent below the projected 2040 regional average, the proposed project’s residential and restaurant/retail uses

would not result in substantial additional VMT. Therefore, the proposed project, in combination with past, present, and reasonably foreseeable development projects, would result in less-than-significant cumulative VMT impacts.

Induced Automobile Travel Analysis

The proposed project is not a transportation project. However, the proposed project would include features that would alter the transportation network (e.g., shared street, fire lane). As discussed in the Existing plus Project/Variant conditions, these features fit within the general types of projects identified above that would not substantially induce automobile travel.⁴⁶ Therefore, the proposed project, in combination with past, present, and reasonably foreseeable development projects, would result in less-than-significant cumulative impacts related to increases in automobile travel.

Traffic Hazards

As described above, a number of cumulative transportation network projects are currently underway, planned, or proposed that would enhance the transportation network in the project vicinity, particularly for pedestrians and bicyclists. These include the Polk Street Improvement Project, the Better Market Street project, and the Van Ness BRT project, among others. Cumulative transportation projects, including the proposed project's shared street on Oak Street and fire lane on Franklin Street, would not introduce unusual design features, and these projects would be designed to meet City, National Association of City Transportation Officials and Federal Highway Administration standards, as appropriate. Increases in vehicle, pedestrian and bicycle travel associated with cumulative development, including the proposed project, could result in the potential for increased vehicle-pedestrian and vehicle-bicycle conflicts, but the increased potential for conflicts would not be considered a new or substantial worsening of a traffic hazards. Therefore, the proposed project, in combination with past, present, and reasonably foreseeable development projects, would result in less than significant cumulative traffic safety hazards impacts.

Cumulative Transit Impacts

Impact C-TR-2: The proposed project or its variant in combination with past, present, and reasonably foreseeable development would not contribute to significant cumulative transit impacts on local or regional transit capacity. (*Less than Significant*)

⁴⁶ *Ibid.*

Muni

The 2040 cumulative transit screenline analysis accounts for ridership and/or capacity changes associated with the TEP (Muni Forward), the Van Ness BRT, the Central Subway Project (which is scheduled to open in 2019), the new Transbay Transit Center, the electrification of Caltrain, and expanded Water Emergency Transportation Authority ferry service. Existing and 2040 cumulative conditions for the weekday AM and PM peak hours for the Muni screenlines are presented in **Table 4.C.21: Muni Downtown Screenline Analysis for Existing and 2040 Cumulative Conditions – Weekday AM Peak Hour** and **Table 4.C.22: Muni Downtown Screenline Analysis for Existing and 2040 Cumulative Conditions – Weekday PM Peak Hour**, respectively. The 2040 cumulative transit screenline analysis was developed by SFMTA based on the SFCTA travel demand model analysis. Forecasted future hourly ridership demand was then compared to expected hourly capacity, as determined by the likely route and headway changes identified in Muni Forward to estimate capacity utilization for 2040 cumulative conditions. The future 2040 cumulative analysis assumes changes to the capacity of the routes as identified in Muni Forward's recommended route and headway changes.

As indicated in **Table 4.C.21**, for 2040 Cumulative conditions during the AM peak hour, the capacity utilization of the Northeast screenline and corridors within the screenlines would be less than Muni's 85 percent capacity utilization standard. However, under 2040 Cumulative conditions, the capacity utilization on a number of corridors within the Northwest, Southeast, and Southwest screenlines, and on the Southwest screenline, would increase and exceed the 85 percent capacity utilization standard during the AM peak hour. As indicated in **Table 4.C.21**, for 2040 Cumulative conditions during the PM peak hour, the capacity utilization of the Northeast and Southwest screenlines and corridors within the screenlines would be less than Muni's 85 percent capacity utilization standard. However, under 2040 Cumulative conditions, the capacity utilization on a number of corridors within the Northwest and Southeast screenlines and on the Northwest screenline would increase and exceed the 85 percent capacity utilization standard during the PM peak hour.

The proposed project or its variant would generate 60 new transit trips during the AM peak hour and 61 transit trips during the PM peak hour that would contribute to ridership on the Southwest screenline. The proposed project would not contribute riders at the MLP to the Northeast, Northwest or Southeast screenlines and/or corridors. As noted in **Table 4.C.21** for the AM peak hour conditions, the Southwest screenline and the Subway and Haight/Noriega corridors within the Southwest screenline would operate at more than the 85 percent capacity utilization standard. The proposed project's contribution to ridership on the corridors and screenline was examined to

Table 4.C.21: Muni Downtown Screenline Analysis for Existing and 2040 Cumulative Conditions – Weekday AM Peak Hour

Screenline/Corridor	Existing			2040 Cumulative		
	Ridership	Capacity	Utilization	Ridership	Capacity	Utilization
Northeast						
Kearny/Stockton	2,211	3,050	72.5%	7,394	9,473	78.1%
Other	538	1,141	47.2%	758	1,785	42.5%
<i>Subtotal</i>	<i>2,749</i>	<i>4,191</i>	<i>65.6%</i>	<i>8,152</i>	<i>11,258</i>	<i>72.4%</i>
Northwest						
Geary	1,821	2,490	73.2%	2,673	3,763	71.0%
California	1,610	2,010	80.1%	1,989	2,306	86.3%
Sutter/Clement	480	630	76.2%	581	756	76.9%
Fulton/Hayes	1,277	1,680	76.0%	1,962	1,977	99.2%
Balboa	758	1,019	74.4%	690	1,008	68.5%
<i>Subtotal</i>	<i>5,946</i>	<i>7,828</i>	<i>76.0%</i>	<i>7,895</i>	<i>9,810</i>	<i>80.5%</i>
Southeast						
Third	350	793	44.1%	2,422	5,712	42.4%
Mission	1,643	2,509	68.5%	3,117	3,008	103.6%
San Bruno/Bayshore	1,689	2,134	79.1%	1,952	2,197	88.8%
Other	1,466	1,756	83.5%	1,795	2,027	88.6%
<i>Subtotal</i>	<i>5,147</i>	<i>7,193</i>	<i>71.6%</i>	<i>9,286</i>	<i>12,944</i>	<i>71.2%</i>
Southwest						
Subway	6,330	6,205	102.0%	6,314	7,020	89.9%
Haight/Noriega	1,121	1,554	72.1%	1,415	1,596	88.7%
Other	465	700	66.5%	175	560	31.3%
<i>Subtotal</i>	<i>7,916</i>	<i>8,459</i>	<i>93.6%</i>	<i>7,904</i>	<i>9,176</i>	<i>86.1%</i>
Total All Screenlines	21758	27,671	78.6%	33,237	43,188	77.0%

Note:

^a Bold indicates that the capacity utilization is greater than the 85 percent standard.

Source: SF Planning Department, 2015

determine if the contribution would be considered significant (i.e., more than 5 percent). The proposed project contributions would be less than 1 percent on the screenlines and corridors, and therefore cumulative impacts on the Muni screenlines during the AM peak hour were determined to be less than significant.

In considering cumulative conditions, the SFMTA would, over time and as part of their operational practices, continue monitoring Muni service citywide and reporting on meeting service goals and capacity utilization standards, with the goal of providing additional capacity or other service changes that would thereby reduce peak hour capacity utilization to less than the performance standard, where feasible.

Table 4.C.22: Muni Downtown Screenline Analysis for Existing and 2040 Cumulative Conditions – Weekday PM Peak Hour

Screenline/Corridor	Existing			2040 Cumulative		
	Ridership	Capacity	Utilization	Ridership	Capacity	Utilization ^a
Northeast						
Kearny/Stockton	2245	3,227	67.5%	6,295	8,329	75.6%
Other	683	1,078	63.4%	1,229	2,065	59.5%
<i>Subtotal</i>	<i>2,928</i>	<i>4,405</i>	<i>66.5%</i>	<i>7,524</i>	<i>10,394</i>	<i>72.4%</i>
Northwest						
Geary	1,964	2,623	74.9%	2,996	3,621	82.7%
California	1,322	1,752	75.5%	1,766	2,021	87.4%
Sutter/Clement	425	630	67.5%	749	756	99.1%
Fulton/Hayes	1,184	1,323	89.5%	1,762	1,878	93.8%
Balboa	625	974	64.2%	776	974	79.7%
<i>Subtotal</i>	<i>5,520</i>	<i>7302</i>	<i>75.8%</i>	<i>8,049</i>	<i>9,250</i>	<i>87.0%</i>
Southeast						
Third	782	793	98.6%	2,300	5,712	40.3%
Mission	1,407	2,601	54.1%	2,673	3,008	88.9%
San Bruno/Bayshore	1,536	2,134	72.0%	1,817	2,134	85.1%
Other	1,084	1675	64.7%	1,582	1,927	82.1%
<i>Subtotal</i>	<i>4,809</i>	<i>7,203</i>	<i>66.8%</i>	<i>8,372</i>	<i>12,781</i>	<i>65.5%</i>
Southwest						
Subway	4,904	6,164	79.6%	5,692	6,804	83.7%
Haight/Noriega	977	1,554	62.9%	1,265	1,596	79.3%
Other	555	700	79.3%	380	840	45.2%
<i>Subtotal</i>	<i>6,436</i>	<i>8,418</i>	<i>76.5%</i>	<i>7,337</i>	<i>9,240</i>	<i>79.4%</i>
Total All Screenlines	19,693	27,328	72.1%	31,282	41,665	75.1%

Note:

^a Bold indicates that the capacity utilization is greater than the 85 percent standard.

Source: SF Planning Department, 2015

The proposed project would not conflict with the planned Van Ness BRT project. The Oak Plaza improvements and the proposed building setback on the Van Ness Avenue project site frontage would provide for additional queuing space at the northwest corner of the intersection of Market/Van Ness, and would support riders waiting for the BRT. In addition, the relocation of the stop line and widening of the crosswalk across southbound Van Ness Avenue would also enhance pedestrians crossing to and from the southbound BRT station on Van Ness Avenue.

Regional Transit

Table 4.C.23: Regional Screenline Analysis for Existing and 2040 Cumulative Conditions – Weekday AM Peak Hour and **Table 4.C.24: Regional Screenline Analysis for Existing and 2040 Cumulative Conditions – Weekday PM Peak Hour** provide a comparison of the existing and 2040 cumulative transit ridership and capacity utilization for each of the regional transit screenlines and regional transit service providers for the AM and PM peak hours, respectively. Under 2040 cumulative conditions, with the exception of BART from the East Bay during the AM peak hour, and to the East Bay during the PM peak hour, no regional transit providers are

expected to exceed their established capacity utilization thresholds (i.e., 100 percent). The proposed project or its variant would add 6 new transit trips to the regional transit providers during the AM peak hour (two trips to the East Bay, one trip to the North Bay, and three trips to the South Bay), and add 10 new transit trips to the regional transit providers during the PM peak hour (three trips to the East Bay, two trips to the North Bay, and five trips to the South Bay).

Table 4.C.23: Regional Screenline Analysis for Existing and 2040 Cumulative Conditions – Weekday AM Peak Hour

Screenline/Corridor	Existing			2040 Cumulative		
	Ridership	Capacity	Utilization	Ridership	Capacity	Utilization
East Bay						
BART	25,399	23,256	109.2%	38,000	32,100	118.4%
AC Transit	1,568	2,829	55.4%	7,000	12,000	58.3%
Ferries	810	1,170	69.2%	4,682	5,940	78.8%
<i>Subtotal</i>	<i>27,777</i>	<i>27,255</i>	<i>101.9%</i>	<i>49,682</i>	<i>50,040</i>	<i>99.3%</i>
North Bay						
GGT buses	1,330	2,543	52.3%	1,990	2,543	78.3%
Ferries	1,082	1,959	55.2%	1,619	1,959	82.6%
<i>Subtotal</i>	<i>2,412</i>	<i>4,502</i>	<i>53.6%</i>	<i>3,609</i>	<i>4,502</i>	<i>80.2%</i>
South Bay						
BART	14,150	19,367	73.1%	21,000	28,808	72.9%
Caltrain	2,171	3,100	70.0%	2,310	3,600	64.2%
SamTrans	255	320	49.0%	271	520	52.1%
Ferries	0	0	0%	59	200	29.5%
<i>Subtotal</i>	<i>16,576</i>	<i>22,987</i>	<i>72.1%</i>	<i>23,640</i>	<i>33,120</i>	<i>71.4%</i>
Total All Screenlines	46,765	54,744	85.4%	76,931	87,662	87.8%

Note:

^a Bold indicates that the capacity utilization is greater than the 100 percent standard.

Source: SF Planning Department, 2016

Table 4.C.24: Regional Screenline Analysis for Existing and 2040 Cumulative Conditions – Weekday PM Peak Hour

Screenline/Corridor	Existing			2040 Cumulative		
	Ridership	Capacity	Utilization	Ridership	Capacity	Utilization
East Bay						
BART	24,488	22,784	107.5%	36,000	32,100	112.1%
AC Transit	2,256	3,926	57.5%	7,000	12,000	58.3%
Ferries	805	1,615	49.8%	5,319	5,940	89.5%
<i>Subtotal</i>	<i>27,549</i>	<i>28,325</i>	<i>97.3%</i>	<i>48,319</i>	<i>50,040</i>	<i>96.6%</i>
North Bay						
GGT buses	1,384	2,817	49.1%	2,070	2,817	73.5%
Ferries	968	1,949	49.4%	1,619	1,959	82.6%
<i>Subtotal</i>	<i>2,352</i>	<i>4,776</i>	<i>49.2%</i>	<i>3,689</i>	<i>4,776</i>	<i>77.2%</i>
South Bay						
BART	13,500	18,900	71.4%	20,000	28,808	69.4%
Caltrain	2,377	3,100	76.7%	2,529	3,600	70.3%
SamTrans	141	320	44.1%	150	320	46.9%
Ferries	0	0	0%	59	200	29.5%
<i>Subtotal</i>	<i>16,018</i>	<i>22,320</i>	<i>71.8%</i>	<i>22,738</i>	<i>32,928</i>	<i>69.1%</i>
<i>Total All Screenlines</i>	<i>45,919</i>	<i>55,421</i>	<i>82.9%</i>	<i>74,746</i>	<i>87,744</i>	<i>85.2%</i>

Note:

^a Bold indicates that the capacity utilization is greater than the 100 percent standard.

Source: SF Planning Department, 2016

During the AM peak hour the proposed project would add 2 trips to BART from the East Bay, and during the PM peak hour would add 3 trips to BART to the East Bay, resulting in contributions of less than 1 percent during the peak hours, and would not be a considerable contribution to BART capacity utilization exceeding the 100 percent standard. Therefore, for both AM and PM peak hour conditions, the proposed project would not contribute considerably to cumulative impacts on the regional screenlines.

Conclusion

For the above reasons, the proposed project or its variant, in combination with past, present, and reasonably foreseeable future development, would not contribute considerably to significant cumulative impacts on local and regional transit capacity.

Cumulative Pedestrian Impacts

Impact C-TR-3: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would not contribute considerably to any significant cumulative pedestrian impacts. (*Less than Significant*)

Pedestrian circulation impacts by their nature are site-specific and generally do not contribute to impacts from other development projects. The proposed project or its variant would not result in

overcrowding of sidewalks or create new potentially hazardous conditions for pedestrians under existing or cumulative conditions. On the contrary, the proposed project or its variant would construct Oak Plaza and the shared street on the segment of Oak Street adjacent to the project site. The easternmost end of the Oak Street right-of-way would be narrowed to create a shared street and provide a public pedestrian plaza extending westward from the Van Ness Avenue curb line by about 202 feet. Implementation of Oak Plaza and the shared street would not create potentially hazardous conditions for pedestrians traveling on Oak Street between Van Ness Avenue and Franklin Street, but would enhance pedestrian conditions.

Walk trips may increase between the completion of the proposed project and the 2040 cumulative conditions due to growth in the area (such as the planned 1554 Market Street Project adjacent to the project site) and other proposed projects. The number of vehicle trips on Oak Street is not projected to substantially increase over existing conditions, as future projects would displace surface parking lots and other land uses that accommodate and/or generate vehicle trips. For example, the proposed project would eliminate an existing off-street parking facility (30 parking spaces), while the approved 1554 Market Street Project would replace an existing auto repair shop and other commercial uses, and both projects would provide limited on-site parking for the residential uses (155 spaces for the 310 residential units for the proposed project, and 28 spaces for the 109 residential units for the approved 1554 Market Street Project), and no parking for the commercial uses. Other cumulative developments that would have vehicular access to Oak Street (e.g., 98 Franklin Street and 110 Franklin Street) would also displace surface parking lots. Thus, under 2040 cumulative conditions, vehicular traffic on Oak Street would become more localized, related to the proposed and approved new residential uses on the block.

At most of the study intersections, there is a projected increase in background vehicle traffic between Existing plus Project/Variant and 2040 cumulative conditions, although with implementation of the planned Van Ness Avenue BRT, which would eliminate one mixed-flow travel lane in each direction, traffic volumes on Van Ness Avenue would be similar to or less than under existing conditions. The overall increase in traffic volumes under 2040 cumulative conditions would result in an increase in the potential for vehicle-pedestrian conflicts at intersections in the study area. While this increase in vehicle traffic on streets in the vicinity of the proposed project that is expected through the future 2040 cumulative conditions, the proposed project would not create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas. For the above reasons, the proposed project or its variant, in combination with past, present, and reasonably foreseeable development in San Francisco, would result in less-than-significant cumulative pedestrian impacts.

Cumulative Bicycle Impacts

Impact C-TR-4: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would not contribute considerably to any significant cumulative bicycle impacts. (*Less than Significant*)

The proposed project or its variant would not contribute considerably to any significant cumulative bicycle circulation or bicycle travel conditions in the area, although some of the project travel demand would be by bicycle. Bicycling trips in the area may increase between the completion of the project and the cumulative scenario due to general growth in the area. Implementation of the proposed Polk Street Improvement Project by SFMTA would enhance conditions for bicyclists on the segment of Polk Street between Union and McAllister streets. As noted above, designs of the improvements are currently being developed, and construction is scheduled to begin in summer 2016. The proposed project would not conflict with these plans and there are no other San Francisco Bicycle Plan projects planned on streets in the vicinity of the project site. The Better Market Street Project, if implemented, would improve the Class II bicycle facilities on Market Street and/or Mission Street, depending on the alternative selected for implementation.

As noted above, under 2040 cumulative conditions, there is a projected increase in vehicles at many of the study intersections in the vicinity of the proposed project, which may result in an increase in vehicle-bicycle conflicts at intersections and driveways in the study area. While there would be a general increase in vehicle traffic that is expected through the future 2040 Cumulative conditions, the proposed project would not create potentially hazardous conditions for bicycles, or otherwise interfere with bicycle accessibility to the site and adjoining areas, or substantially affect the Class II bicycle lane on Market Street. Therefore, for the above reasons, the proposed project or its variant, in combination with past, present, and reasonably foreseeable development in San Francisco, would result in less-than-significant cumulative impacts on bicyclists.

Cumulative Loading Impacts

Impact C-TR-5: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would not contribute considerably to any significant cumulative loading impacts. (*Less than Significant*)

Loading impacts, like pedestrian impacts, are by their nature localized and site-specific, and would not contribute to impacts from other development projects near the project site. Moreover, the proposed project would not result in loading impacts on Van Ness Avenue and Oak Street, as the estimated loading demand would be met within the on-site loading spaces. In addition to the on-site loading spaces, existing on-street commercial loading spaces are located on Market Street

adjacent to and to the west of the project site. The approved 1554 Market Street Project, located directly to the west of the project site, will include about 109 residential units and about 5,000 square feet of ground-floor retail. These uses would generate about five daily truck trips, and result in a demand for less than one loading space during the peak and average hours of loading activities. The 1554 Market Street building will not include an off-street loading space, but will include an on-street commercial loading space on Oak Street, directly west of the project site. This planned commercial loading space and the existing on-street commercial loading spaces on Market Street would accommodate the 1554 Market Street building's loading demand. The off-street loading facilities for the existing San Francisco Conservatory of Music are located off of Hickory Street; however, passenger loading/unloading activities occur on Oak Street within the diagonal parking spaces. Thus, with the proposed project, the loading activities associated with existing and planned projects on Oak Street would be accommodated. As described in Subsection 4.3.1 above, the Better Market Street Project, if implemented, would eliminate the on-street recessed loading bay on Market Street adjacent to the project site, depending on the alternative selected for implementation. If commercial loading zones are eliminated on Market Street as part of the Better Market Street Project, new loading spaces would be created on adjacent cross streets and alleys (e.g., on Page Street if the Franklin Street fire lane is implemented, and on Franklin Street if the fire lane is not implemented) to accommodate the loading demand. Therefore, for the above reasons, the proposed project or its variant, in combination with past, present and reasonably foreseeable development in San Francisco, would result in less-than-significant cumulative loading impacts.

Cumulative Emergency Vehicle Access Impacts

Impact C-TR-6: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would not contribute considerably to any significant cumulative emergency vehicle access impacts. (*Less than Significant*)

The proposed project or its variant would not contribute considerably to any significant cumulative emergency vehicle access conditions in the area. With the proposed project, emergency vehicle access to the east would be improved through implementation of the Franklin Street fire lane; however, emergency vehicle access would be maintained on the project block and through the shared street on Oak Street. With implementation of the Van Ness BRT, two mixed-flow travel lanes on Van Ness Avenue and South Van Ness Avenue (one northbound and one southbound) between Mission and Lombard streets would be converted into two dedicated transit lanes, and left turns along Van Ness Avenue, except on Lombard Street (northbound) and Broadway (southbound), would be eliminated. With implementation of transit-only lanes and turn restrictions, emergency vehicle providers may adjust travel routes to respond to incidents; however, emergency vehicle access in the area would not be substantially affected. Emergency

vehicles would be permitted full use of transit-only lanes and would not be subject to any turn restrictions. Therefore, for the above reasons, the proposed project or its variant, in combination with past, present, and reasonably foreseeable development in San Francisco, would result in less-than-significant cumulative emergency vehicle access impacts.

Cumulative Construction Impacts

Impact C-TR-7: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would contribute considerably to significant cumulative construction-related transportation impacts. (*Significant and Unavoidable with Mitigation*)

Construction of the proposed project may overlap with the construction of other cumulative projects, in particular with the ongoing construction of the 22 Franklin Street project and the planned 1554 Market Street building (about 109 residential units and 4,810 gsf of retail uses) adjacent to the project site, although the timing of construction is not currently known. Other reasonably foreseeable projects in the project vicinity include 1500 Mission Street, 10 South Van Ness Avenue, 1601 Mission Street, among others. In addition, streetscape improvements associated with the Van Ness BRT will be constructed within this timeframe, and service is expected to begin on Van Ness Avenue in 2018, and, depending on the phasing of construction, may partially overlap with proposed project construction. Given the magnitude of projected cumulative development and transportation/streetscape projects anticipated to occur in the proposed project vicinity and the uncertainty concerning construction schedules, cumulative construction activities could result in disruptions to traffic, transit, pedestrians, or bicyclists. Despite the best efforts of the project sponsors and project construction contractors, it is possible that simultaneous construction of the cumulative projects could result in significant disruptions to transit, pedestrian, and bicycle circulation, even if each individual project alone would not have significant impacts. In some instances, depending on construction activities, construction overlap of two or more projects may not result in significant impacts. However, for conservative purposes, given the concurrent construction of multiple buildings and transportation projects, some in close proximity to each other, the expected intensity, and likely impacts to transit, traffic, bicyclists, and pedestrians, cumulative construction-related transportation impacts would be considered significant. Construction of the proposed project would contribute considerably to these significant cumulative construction-related transportation impacts.

Mitigation Measure M-C-TR-7: Cumulative Construction Coordination (described below) would require the project sponsor or its contractor(s) to consult with various City departments such as SFMTA and Public Works through ISCOTT, and other interdepartmental meetings as needed, to develop coordinated plans that would address construction-related vehicle routing, detours, and transit, bicycle, and pedestrian movements adjacent to the construction area for the

duration of construction overlap. These construction coordination measures would not result in secondary transportation impacts. Key coordination meetings would be held jointly between project sponsors and contractors of other projects for which the City departments determine impacts could overlap. Implementation of Mitigation Measure M-C-TR-7 would minimize, but would not eliminate, the significant cumulative impacts related to conflicts between construction activities and pedestrians, transit, bicyclists, and autos. Other mitigation measures, such as imposing sequential (non-overlapping) construction schedules for all projects in the vicinity, were considered but deemed infeasible due to potentially lengthy delays in project implementation. Therefore, construction of the proposed project, in combination with past, present and reasonably foreseeable development, would contribute considerably to cumulative construction-related transportation impacts, which would remain significant and unavoidable with mitigation.

Mitigation Measure M-C-TR-7: Cumulative Construction Coordination

If construction of the proposed project is determined to overlap with nearby project(s) as to result in temporary construction-related transportation impacts, the project sponsor or its contractor(s) shall consult with City departments such as the SFMTA and Public Works through ISCOTT, and other interdepartmental meetings as deemed necessary by the SFMTA, Public Works, and the Planning Department, to develop a Coordinated Construction Management Plan. The Coordinated Construction Management Plan shall address construction-related vehicle routing, detours, and maintaining transit, bicycle, vehicle, and pedestrian movements in the vicinity of the construction area for the duration of the construction period overlap. Key coordination meetings would be held jointly between project sponsors and contractors of other projects for which City departments determine impacts could overlap. The Coordinated Construction Management Plan shall consider other ongoing construction in the project vicinity, including development and transportation infrastructure project, and shall include, but not be limited to, the following:

- Restricted Construction Truck Access Hours – Limit construction truck movements to the maximum extent feasible to the hours between 9:00 AM and 4:30 PM, or other times if approved by the SFMTA, to minimize disruption to vehicular traffic, including transit during the AM and PM peak periods.
- Construction Truck Routing Plans – Identify optimal truck routes between the regional facilities and the project site, taking into consideration truck routes of other development projects and any construction activities affecting the roadway network.
- Coordination of Temporary Lane and Sidewalk Closures – The project sponsor shall coordinate lane closures with other projects requesting concurrent lane and sidewalk closures through the ISCOTT and interdepartmental meetings process above, to minimize the extent and duration of requested lane and sidewalk closures. Lane closures shall be minimized especially along transit and bicycle routes, so as to limit the impacts to transit service and bicycle circulation and safety.
- Maintenance of Transit, Vehicle, Bicycle, and Pedestrian Access – The project sponsor/construction contractor(s) shall meet with Public Works, SFMTA, the Fire Department, Muni Operations and other City agencies to coordinate feasible measures to include in the Coordinated Construction Management Plan to maintain

access for transit, vehicles, bicycles and pedestrians. This shall include an assessment of the need for temporary transit stop relocations or other measures to reduce potential traffic, bicycle, and transit disruption and pedestrian circulation effects during construction of the project.

- Carpool, Bicycle, Walk and Transit Access for Construction Workers – The construction contractor shall include methods to encourage carpooling, bicycling, walk and transit access to the project site by construction workers (such as providing secure bicycle parking spaces, participating in free-to-employee and employer ride matching program from www.511.org, participating in emergency ride home program through the City of San Francisco (www.sferh.org), and/or providing transit information to construction workers).
- Construction Worker Parking Plan – The location of construction worker parking shall be identified as well as the person(s) responsible for monitoring the implementation of the proposed parking plan. The use of on-street parking to accommodate construction worker parking shall be discouraged. The project sponsor shall provide on-site parking to the extent feasible once the below-grade parking garage is usable.
- Project Construction Updates for Adjacent Businesses and Residents – To minimize construction impacts on access for nearby institutions and businesses, the project sponsor shall provide nearby residences and adjacent businesses with regularly-updated information regarding project construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), travel lane closures, and lane closures. At regular intervals to be defined in the Coordinated Construction Management Plan, a regular email notice shall be distributed by the project sponsor that shall provide current construction information of interest to neighbors, as well as contact information for specific construction inquiries or concerns.

D. WIND

Section 4.D, Wind, describes the proposed project's impacts on ground-level wind currents at various publicly-accessible locations on the project site and in its vicinity. The Environmental Setting discussion includes a description of general wind characteristics in San Francisco and provides details of the wind environment in the project vicinity, followed by the regulations that define the criteria San Francisco uses in determining whether wind impacts would be significant. The evaluation of potential wind impacts considers the results of wind tunnel testing for three test scenarios: an existing scenario that establishes the baseline wind conditions at and around the project site; a project scenario, which evaluates the project's effect on ground-level winds and a cumulative scenario in order to evaluate the effects of the project in combination with other reasonably foreseeable projects. The wind data cited in this section are based on the results of a *Wind Microclimate Wind Study* prepared by the engineering firm BMT Fluid Mechanics (BMT).¹

ENVIRONMENTAL SETTING

CLIMATIC CONDITIONS

The difference in atmospheric pressure between two points on the earth causes air masses to move from the area of higher pressure to the area of lower pressure. This movement of air masses results in wind currents. Meteorological data from the United States Weather Bureau and the Bay Area Air Quality Management District show that winds from four directions: the northwest (NW), west-northwest (WNW), west (W), and west-southwest (WSW) are the most prevalent in San Francisco and reflect the persistence of sea breezes. Wind direction is most variable during the winter, when strong southerly winds, which are frequent during the approach of a winter storm, occur. Average wind speeds are highest during the summer and lowest during the winter. Winds exhibit certain diurnal characteristics in San Francisco: the highest wind speeds generally occur during the mid-afternoon hours, while the lowest wind speeds often occur during early mornings.

BUILDINGS AND WIND SPEED

The direction and speed of wind currents can be altered by natural features of the land or by buildings and structures. Groups of buildings clustered together tend to act as obstacles that reduce wind speeds; building height, massing, and orientation or profiles of buildings may also be factors that can affect wind speeds. Buildings that are much taller than those they surround may intercept winds that might otherwise flow overhead. Tall buildings may redirect winds down the

¹ BMT Fluid Mechanics (BMT), *One Oak Street Project Wind Microclimate Study*, November 7, 2016. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

vertical face of the building to ground level. With nothing to obstruct these airflows, winds may become strong and turbulent.

A building's exposure, massing, and orientation affect nearby ground-level wind conditions. Exposure is a measure of the degree to which a building extends above surrounding structures into the wind stream. A building surrounded by taller structures is unlikely to cause adverse wind accelerations at the ground level, while even a small building can cause wind acceleration if it is freestanding and exposed. Groups of structures tend to slow winds near ground level, due to the friction and the drag on a structure's surface winds are subjected. Massing affects how much wind a building intercepts and whether wind accelerations occur at ground level. In general, slab-shaped buildings (oriented perpendicular to the prevailing wind direction) have the greatest potential to cause wind acceleration; buildings with an unusual shape or setbacks have a lesser effect. Generally, the more geometrically complex the building, the less ground-level wind acceleration that would be expected to occur. Building orientation also affects the amount of wind a structure intercepts and the corresponding extent of wind acceleration. Buildings with a wide axis perpendicular to prevailing winds will generally cause greater ground-level wind acceleration.

WIND EFFECTS ON PEDESTRIANS

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to 4 miles per hour (mph) have no noticeable effect on pedestrian comfort. At speeds between 4 and 8 mph, wind is felt on the face. Wind speeds between 8 and 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. Wind speeds between 13 and 19 mph will raise loose paper, dust, and dry soil, and will disarrange hair. At speeds between 19 and 26 mph, the force of the wind will be felt on the body. At wind speeds between 26 and 34 mph, umbrellas are used with difficulty, hair is blown straight, walking steadily is difficult, and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance, and gusts can be hazardous and can blow people over.

As discussed in Chapter 3, Plans and Policies, on p. 3.4, the *Market and Octavia Neighborhood Plan's* Fundamental Design Principle for Towers #3 calls for the provision of pedestrian comfort from wind. In particular, the MO Plan identifies significant winds in the Van Ness Avenue and Market Street corridor and notes that tower structures can channel winds down to the street level, resulting in unpleasant and potentially dangerous conditions for pedestrians. Redirected wind flows from new towers should not exceed 7 miles per hour on Market Street and 11 miles per hour on all other streets. This Fundamental Design Principle calls for the integration of horizontal articulation, screens, and/or other wind mitigation measures

REGULATORY FRAMEWORK

In order to provide a comfortable wind environment for people in San Francisco, the City has established comfort criteria to be used in the evaluation of proposed buildings. In the context of CEQA, these comfort criteria are compared to a project's anticipated wind speeds for informational purposes, not to identify significant effects. The project site is located in a C-3-G (Downtown Commercial, General) zoning district. Section 148 of the Planning Code outlines the criteria for regulating ground-level wind currents in Downtown Commercial (C-3) Districts, including the project site.

Comfort Criteria

The comfort criteria are based on pedestrian-level wind speeds that include the effects of turbulence; these are referred to as "equivalent wind speeds" (defined in the Planning Code as "an hourly mean wind speed adjusted to incorporate the effects of gustiness or turbulence on pedestrians"). Planning Code Section 148 establishes equivalent wind speeds of 7 mph as the comfort criterion for seating areas and 11 mph as the comfort criterion for areas of substantial pedestrian use, and states that new buildings and additions to buildings may not cause ground-level winds to exceed these levels more than 10 percent of the time year-round between 7:00 AM. and 6:00 PM. If existing wind speeds exceed the comfort level, or when a project would result in exceedances of the comfort criteria, an exception may be granted, pursuant to Planning Code Section 309, if the building or its addition cannot be designed to meet the criteria "without creating an unattractive and ungainly building form and without unduly restricting the development potential" of the site.

Hazard Criterion

Planning Code Section 148 also establishes a hazard criterion, which is a 26-mph equivalent wind speed averaged over a single 1-hour period, or approximately 0.0114 percent of the time in a year.² Under Section 148, new buildings and additions to buildings may not cause wind speeds that meet or exceed this hazard criterion. In San Francisco, the hazard criterion is used to determine the significance of winds, and an exceedance of this criterion is considered a significant impact pursuant to CEQA. Under Section 148, no exception may be granted for buildings that result in winds that exceed the hazard criterion.

² The comfort criteria are based on wind speeds that are measured for one minute and averaged. In contrast, the hazard criterion is based on wind speeds that are measured for one hour and averaged. Because the original wind data were collected at one-minute averages (i.e., a measurement of sustained wind speed for one minute collected once per hour), the 26-mph hourly average is converted to a one-minute average of 36 mph, which is used to determine compliance with the 26-mph one-hour hazard criterion in the Planning Code.

IMPACTS

SIGNIFICANCE CRITERIA

The threshold for determining the significance of impacts in this analysis is consistent with the environmental checklist in Appendix G of the State CEQA Guidelines, which has been adopted and modified by the San Francisco Planning Department. Implementation of the proposed project would have a significant wind effect if the project would:

- Alter wind in a manner that substantially affects public areas.

A project that creates a wind hazard, as defined by Planning Code Section 148, the City's ordinance that regulates wind in publicly accessible areas, would also be a project that would alter wind in a manner that substantially affects public areas, a significant wind impact for the purposes of CEQA.

APPROACH TO ANALYSIS

At a height of 400 feet (420 feet including a 20-foot-tall mechanical penthouse), the proposed project would be substantially taller than existing nearby buildings and has the potential to intercept winds that might otherwise flow overhead. These winds could be redirected down the vertical face of the building, a "downwash effect" that could cause strong, turbulent ground-level winds around the building and project site. For these reasons, the proposed project is required to undergo wind tunnel testing.

Any proposed development project in San Francisco that requires a wind tunnel analysis follows a standard methodology established by Section 148 of the Planning Code as implemented by the Planning Department. Under the standard methodology, the wind tunnel analysis relies on wind data collected from the United States Weather Bureau weather station atop the Federal Building at 50 United Nations Plaza. Wind data from 7:00 AM to 6:00 PM are used, because this time period represents peak pedestrian activity in an urban setting.

Engineers from the firm BMT Fluid Mechanics conducted a wind tunnel test of the proposed project using a 1:300 (1 inch=25 feet) scale model of the proposed project and surrounding buildings within a 1,500-foot radius of the project site. The scale model, which was equipped with permanently mounted wind speed sensors, was placed inside an atmospheric boundary layer wind tunnel.

Modeling for the Project and Cumulative Scenarios accounts for demolition of the two existing buildings on the building site (1500 Market Street on Lot 1, and 1540 Market Street on Lot 5) where a tower-over-podium model scaled to 420 feet that reflects the height of the proposed project's parapet is tested on the site. Features of the proposed public plaza within the Oak Street right-of-way are incorporated in the Project and Cumulative Scenario modeling as well as several

wind canopies within the proposed plaza, and one on the sidewalk at the northeast corner at the Polk Street/Market Street intersection; the scenarios also account for relocation of the existing Muni Van Ness station elevator entrance from the eastern end of the project site to the ground floor of the existing One South Van Ness building at the southeast corner of South Van Ness Avenue and Market Street in the model.

The proposed project includes a variant, as described in Chapter 2, Project Description, on p. 2.30. The height and bulk/massing of the variant would be the same as those of the proposed project, so wind impacts of the variant would be substantially the same as those of the proposed project. No separate discussion of the project variant is necessary under the topic of Wind.

Using the four wind directions that account for the strongest winds with the greatest frequency of occurrence (northwest, west-northwest, west, and west-southwest), wind tunnel tests were then conducted for the project site and vicinity for the following three scenarios:

Existing Scenario: configuration consists of the existing structures on the project site and the existing surrounding buildings.

Project Scenario: configuration consists of the proposed project on the site (instead of what currently exists there today) and existing surrounding buildings.

Cumulative Scenario: configuration includes the proposed project on the site, existing surrounding buildings, plus reasonably foreseeable future projects within 1,500 feet of the project site.

For each scenario, the model was reviewed to determine whether the appropriate buildings were included in the specific test configuration. For the cumulative scenario, the model was reviewed to ensure that reasonably foreseeable future projects within the extent of the modeled area would be included to allow for testing of these foreseeable projects in conjunction with the proposed project in its vicinity. The Cumulative Scenario includes the following projects for which Planning Department Environmental Evaluation Applications have been filed or which the Planning Department has otherwise determined as reasonably foreseeable:

- **30 Van Ness Avenue**, to the north-east of the project site at the intersection of the Market Street and Van Ness Avenue (Because project plans for 30 Van Ness Avenue were not available at the time of wind tunnel modelling for the proposed project, a simplified massing model of this building was used for wind tunnel testing.);
- **Fox Plaza Expansion**, at the intersection of Market Street and Hayes Street;
- **22 Franklin Street**, to the west of the project site along Franklin Street;
- **1546 Market Street**, immediately adjacent to the west of the project site along Market Street;
- **10 South Van Ness Avenue**, to the south of the project site at the intersection of Market Street and South Van Ness Avenue (Because project plans for 10 South Van Ness Avenue were not available at the time of wind tunnel modelling for the proposed project, a simplified massing model of this building was used for wind tunnel testing.);

- **1500-1580 Mission Street**, to the south-east of the site at the intersection of Mission Street and South Van Ness Avenue;
- **30 Otis Street**, to the south of the project site at the intersection of /12th Street and Otis Street;
- **Bus Rapid Transit (BRT) stations**, at the intersection of Market Street and Van Ness Avenue, proposed as part of the Van Ness Avenue BRT project.

These projects within a 1,500-foot radius of the project site are included and described in a broader general list of reasonably foreseeable projects in Section 4.A, Chapter Introduction, on pp. 4.A.6-4.A.12. A total of 57 test point locations were evaluated within a 1,500-foot-radius of the project site, located on public spaces. The analysis complies with standard methodology for studies in the City, and does not take into account streetscape features (i.e., it does not take into account furniture, wind screens, trees and landscaping). **Figure 4.D.1: Locations of Wind Study Test Points** shows the wind analysis locations.³

The locations of test points along the street segments in the area are shown in **Table 4.D.1: Test Point Locations along Street Segments**.

Results are reported for conformity with the comfort criterion and for conformity with the hazard criterion, respectively, for the following three tested scenarios: Existing Scenario, the Proposed Scenario, and the Cumulative Scenario.

As noted on p. 4.D.4, a project would be considered to have a significant wind impact if it were to “alter wind in a manner that substantially affects public areas” (i.e., cause winds to exceed the wind hazard criterion of 26 mph for more than one hour per year) at any of the points shown on Figure 4.D.1. Private open spaces on adjacent or nearby properties that are only accessible to the tenants of those properties are not considered public areas. For these reasons, the significance of potential wind impacts is considered entirely on publicly accessible spaces.

The proposed project’s wind effects relative to Section 148’s pedestrian comfort criterion are presented in this section for informational purposes, and do not factor into the determination of significance for purposes of CEQA because the threshold used to identify significant impacts

³ Note that the model is constrained by the size of the disk on which the model is placed in the wind tunnel. Testing accounts for the possibility of other foreseeable projects at further distances beyond the 1500 foot test radius by building and modeling “roughness” into the upwind profile. This roughness accounts for the potential changes to winds from foreseeable projects that are outside of the tested area, so even though specific models may not be tested beyond the 1500 foot radius, the modeling accounts for all cumulative projects by calibrating winds accordingly. Wind is unsteady or gusty, and this ‘gustiness’ or turbulence depends on the site. Modelling these effects is achieved by incorporating a series of grid, barrier and floor roughness elements into the model to create an atmospheric boundary layer that is representative of San Francisco’s urban conditions.

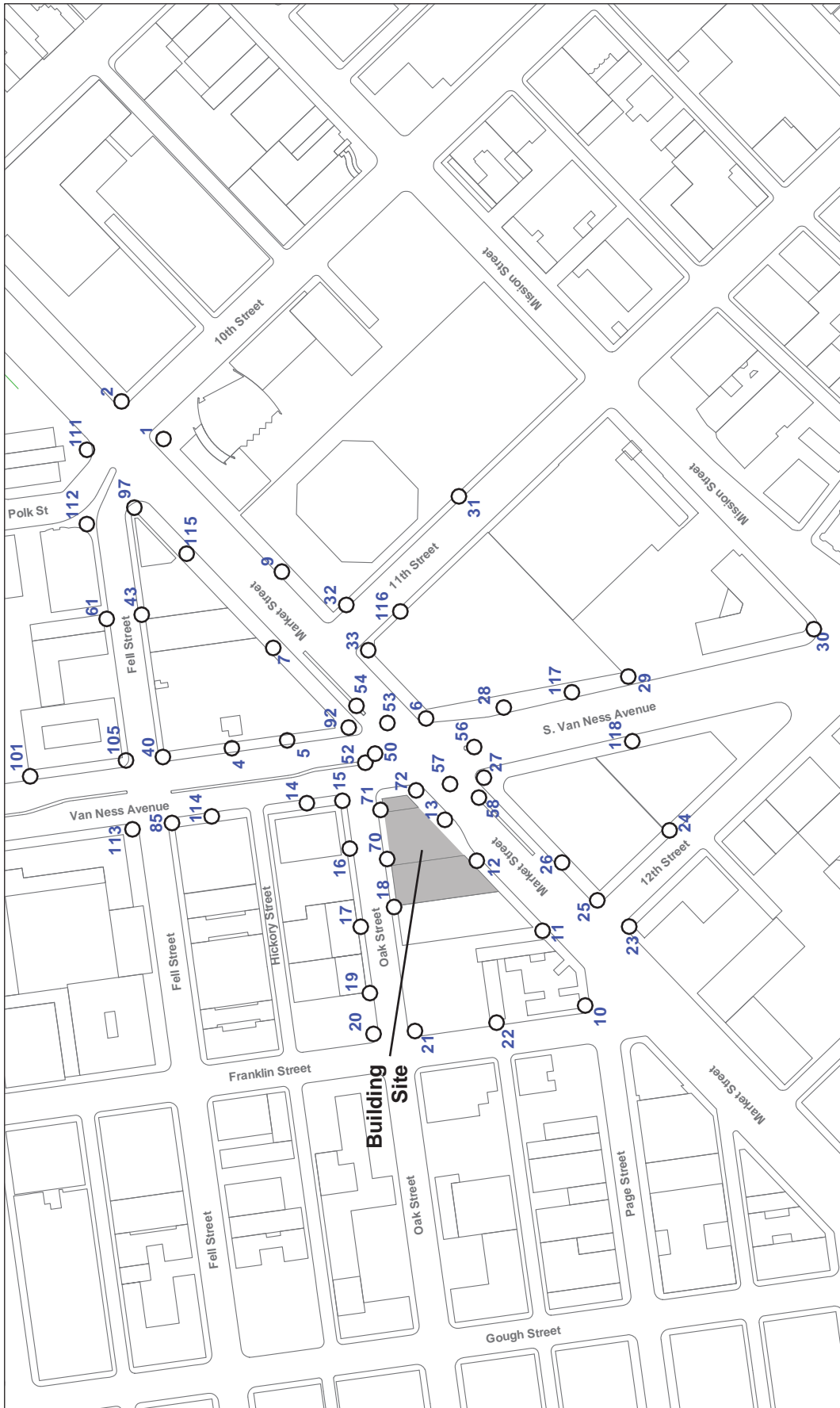


FIGURE 4.D.1: LOCATIONS OF WIND STUDY TEST POINTS

Source: BMT Fluid Mechanics Limited (2016)

ONE OAK PROJECT

2009.0159E

Table 4.D.1: Test Point Locations along Street Segments

Street Segment	Test Point Identifiers	Number of Points
Van Ness Ave (east side)	101, 105, 40, 4, 5, 92, 53	7
Van Ness Ave (west side)	113, 85, 114, 14, 15, 71, 72, 57	8
South Van Ness Ave	6, 28, 117, 29, 30, 118, 27, 56	8
Van Ness Ave / Market St intersection	92, 54, 53, 6, 56, 27, 58, 57, 13, 72, 52, 50	12
Franklin St	20, 21, 22, 10	4
Fell St	113, 105, 61, 112, 97, 43, 40, 85	8
Oak St	20, 19, 17, 16, 15, 71, 70, 18, 21	9
Market St (north side)	10, 11, 12, 13, 72, 52, 50, 92, 7, 115, 97, 111	12
Market St (south side)	23, 25, 26, 58, 27, 56, 6, 33, 9, 1, 2	11
11th St	32, 31, 116, 33	4
12th St	25, 24, 23	3
Polk / Fell / Market / 10th St intersection	111, 2, 1, 97, 112	5

Note:

* Note that some test points may be assigned to multiple groupings, such as points on corners, and values may be repeated as applicable for purposes of determining average wind speed per street segment.

Source: BMT Fluid Dynamics

relates to the Code’s wind hazard criterion. Decision-makers may review the wind comfort data here and in staff reports that will be prepared to address the project’s conformance with the relevant provisions in Planning Code Section 309 in their decision to grant exceptions for comfort criterion exceedances as part of broader considerations whether to approve, modify or disapprove the proposed project.

IMPACT EVALUATION

Wind Comfort Analysis for the Proposed Project

The discussion of the proposed project's effects with respect to the City's pedestrian comfort criteria under the Existing Scenario is presented here for informational purposes. As noted, the evaluation of wind hazards in the Project and Cumulative Scenarios, following the discussion of wind comfort, is the basis upon which this EIR determines whether the project's wind impacts would be significant pursuant to CEQA.

Impact W-1: The proposed project would not alter wind in a manner that substantially affects public areas. (*Less than Significant*)

Existing Scenario

Existing conditions in the project vicinity may be generally characterized as windy. The site and surroundings are subject to winds in excess of the City's comfort criterion for more than 10 percent of the time during the year. The site and surrounding study area is also prone to wind hazards at specific locations on the east side of Van Ness Avenue and near Fox Plaza as described under the evaluation of wind hazards, following this discussion.

Existing wind speeds within publicly accessible pedestrian areas surrounding the project site would affect pedestrian comfort, particularly during the summer afternoons. Wind modeling of existing conditions indicates that 37 of the 57 measured test points around the project site and vicinity currently exceed the pedestrian comfort criterion of 11 mph more than 10 percent of the time, as established by Section 148 of the San Francisco Planning Code, while 20 of the 57 test points comply with the comfort criteria. See **Table 4.D.2: Wind Comfort Analysis Results**.

The average equivalent wind speed for the wind comfort analysis at the 57 test points is approximately 12.6 mph, with wind speeds ranging from 7 mph at test point 12 (on the sidewalk adjacent to the proposed building along the north side of Market Street) to 20 mph at test point 112 (on the sidewalk at the northwest corner of the Polk Street/Fell Street intersection). The highest wind speeds occur at the southwest corner at the intersection of Market Street and 10th Street (test point 1) and at the northwest corner at the intersection of Polk Street and Fell Street (test point 112).

Project Scenario

Data indicate that the Proposed Project, with its wind canopies, would not substantially accelerate wind speeds or cause a deterioration of conditions to occur; the study area, with implementation of the proposed project and public plaza would continue to be perceived as windy.

Report Analysis Results	Existing Conditions Configuration				Proposed Project Configuration				Cumulative Configuration					
	Wind Speed exceeded 10% of time (mph)	Percentage of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed exceeded 10% of time (mph)	Percentage of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds	Wind Speed exceeded 10% of time (mph)	Percentage of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds	Wind Speed exceeded 10% of time (mph)	Percentage of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)
	20	47%	e	20	46%	0	e	19	42%	-1	e	19	42%	-1
16	31%	e	16	31%	0	e	16	28%	0	e	16	28%	0	
17	36%	e	17	36%	0	e	14	24%	-3	e	14	24%	-3	
16	33%	e	17	35%	1	e	15	29%	-1	e	15	29%	-1	
14	23%	e	18	41%	4	e	19	43%	5	e	19	43%	5	
9	4%		10	5%	1		10	8%	1		10	8%	1	
14	21%	e	12	13%	-2	e	11	11%	-3	e	11	11%	-3	
10	6%		11	9%	1		9	6%	-1		9	6%	-1	
8	3%		13	18%	5	p	16	32%	8	p	16	32%	8	
7	1%		14	25%	7	p	12	15%	5	p	12	15%	5	
8	2%		13	17%	5	p	15	24%	7	p	15	24%	7	
10	5%		10	6%	0		11	10%	1		11	10%	1	
9	3%		11	11%	2	p	11	11%	2	p	11	11%	2	
8	2%		13	21%	5	p	12	12%	4	p	12	12%	4	
8	1%		9	2%	1		11	9%	3		11	9%	3	
12	13%	e	17	38%	5	e	12	14%	0	e	12	14%	0	
12	15%	e	12	13%	0	e	12	16%	0	e	12	16%	0	
11	8%		10	7%	-1		11	9%	0		11	9%	0	
10	7%		10	5%	0		11	10%	1		11	10%	1	
9	4%		7	1%	-2		8	2%	-1		8	2%	-1	
10	8%		12	13%	2	p	11	9%	1	p	11	9%	1	
10	6%		10	5%	0		13	21%	3		13	21%	3	
12	13%	e	16	32%	4	e	13	18%	1	e	13	18%	1	
10	8%		11	10%	1		12	15%	2		12	15%	2	
12	15%	e	15	27%	3	e	19	41%	7	e	19	41%	7	
13	18%	e	15	28%	2	e	19	45%	6	e	19	45%	6	
17	37%	e	18	38%	1	e	23	51%	6	e	23	51%	6	
13	18%	e	12	16%	-1	e	17	38%	4	e	17	38%	4	
11	11%	e	9	4%	-2	-	13	17%	2	-	13	17%	2	
13	17%	e	11	11%	-2	e	15	26%	2	e	15	26%	2	
14	25%	e	13	20%	-1	e	18	39%	4	e	18	39%	4	
17	36%	e	17	37%	0	e	15	29%	-2	e	15	29%	-2	
13	20%	e	15	29%	2	e	12	13%	-1	e	12	13%	-1	
14	23%	e	14	24%	0	e	14	23%	0	e	14	23%	0	
14	21%	e	13	20%	-1	e	12	16%	-2	e	12	16%	-2	
15	29%	e	16	34%	1	e	17	35%	2	e	17	35%	2	
14	25%	e	15	27%	1	e	19	43%	5	e	19	43%	5	
15	28%	e	20	47%	5	e	16	32%	1	e	16	32%	1	
11	10%	e	17	34%	6	e	18	38%	7	e	18	38%	7	
11	11%	e	18	37%	7	e	20	46%	9	e	20	46%	9	
17	35%	e	17	36%	0	e	16	34%	-1	e	16	34%	-1	
10	7%		13	20%	3	p	10	7%	0	p	10	7%	0	
10	5%		13	20%	3	p	12	12%	2	p	12	12%	2	
10	7%		14	25%	4	p	12	13%	2	p	12	13%	2	
11	9%		14	24%	3	p	13	18%	1	p	13	18%	1	

Existing Conditions Configuration				Proposed Project Configuration				Cumulative Configuration			
Wind Speed exceeded 10% of time (mph)	Percentage of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed exceeded 10% of time (mph)	Percentage of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed exceeded 10% of time (mph)	Percentage of Time Wind Speed Exceeds 11 mph	Wind Speed exceeded 10% of time (mph)	Percentage of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Speed Change Relative to Existing (mph)
13	19%	e	14	25%	e	19	42%	19	42%	1	6
16	26%	e	16	30%	e	17	33%	17	33%	0	1
11	10%		12	16%	p	12	17%	12	17%	1	1
19	44%	e	19	43%	e	19	44%	19	44%	0	0
19	41%	e	17	35%	e	17	33%	17	33%	-2	-2
20	43%	e	21	45%	e	21	42%	21	42%	1	1
15	29%	e	15	28%	e	15	26%	15	26%	0	0
12	16%	e	13	16%	e	10	7%	10	7%	1	-2
10	7%		10	7%		8	2%	8	2%	0	-2
11	11%	e	10	8%	e	11	11%	11	11%	-1	0
15	27%	e	13	20%	e	24	56%	24	56%	-2	9
12	15%	e	12	14%	e	15	28%	15	28%	0	3
Average	Average	Sum	Average	Average	Sum	Average	Average	Average	Average	Average	Average
12.6	17.7%	37	13.9	22.5%	45	14.4	24.1%	14.4	24.1%	+1.2	+1.8
Existing, e			Existing, e			New, due to proposed project, p			New, due to proposed project, p		
			New, at new location, n			New, at new location, n			New, at new location, n		
			Eliminated by Proposed Project, -			Eliminated by Proposed Project, -			Eliminated by Proposed Project, -		
			37			35			10		
			0			0			2		

"e" indicates that the measured wind speed exceeds the wind hazard criterion, a blank indicates that the measured wind speed does not exceed the wind hazard criterion, and a "-" indicates that an exceedance is eliminated.

With implementation of the proposed project, the average equivalent wind speed for the wind comfort analysis at the 57 test points would increase from 12.6 mph under the Existing Scenario to 13.9 mph. The number of test points exceeding the wind comfort criterion would increase from 37 under the Existing Scenario to 45 under the Project Scenario, a net increase of 8 test points.

The Project Scenario would cause 10 test points that meet the comfort criterion under the Existing Scenario to exceed the comfort criterion: test points 12, 13, 72, 71, and 70 (on the sidewalk adjacent to the proposed building along the north side of Market Street, Oak Street, and Van Ness Avenue); test points 15 and 16 (on the sidewalk along the north side of Oak Street across from the proposed building); test points 11 and 23 (on the sidewalk along the north and south sides of Market Street west of the proposed building); and test point 101 (on the sidewalk along the east side of Van Ness Avenue midblock between Hayes Street and Fell Street). At these locations, wind speed increases would range between 1 mph (test point 101, where wind speeds would increase from 11 mph to 12) and 7 mph (test point 12, where wind speeds would increase from 7 mph to 14 mph).

The highest increase in average mph compared to existing conditions is at the Van Ness Avenue and Market Street intersection, where the average increased by 3.0 mph. Various locations show large increases in the wind speeds, most notably on the northern sidewalk of Market Street to the immediate south of the project site (test point #12) and at the western Muni station at the Market Street / Van Ness Avenue intersection (test point #58), where both show an increase of 7 mph (from 7 mph to 14 mph and from 11 mph to 18 mph, respectively).

Under the Project Scenario, two comfort exceedances that occur under the Existing Scenario (test points 31 and 116, on the sidewalk along east and west sides of 11th Street) would be eliminated. At these locations, wind speeds would decrease by 2 and 1 mph, respectively.

According to the requirement specified in Planning Code Section 148, when pre-existing ambient wind speeds exceed the comfort level, or when a proposed building or addition may cause ambient wind speeds to exceed the comfort level, the proposed building shall be designed to reduce the ambient wind speeds to meet the requirements. An exception may be granted, in accordance with the provisions of Planning Code Section 309, allowing the building or addition to add to the amount of time that the comfort level is exceeded by the least practical amount if (1) it can be shown that a building or addition cannot be shaped and other wind-baffling measures cannot be adopted to meet the foregoing requirements without creating an unattractive and ungainly building form and without unduly restricting the development potential of the building site in question, and (2) it is concluded that, because of the limited amount by which the comfort level is exceeded, the limited location in which the comfort level is exceeded, or the limited time during which the comfort level is exceeded, the addition is insubstantial.

Improvement Measure I-W-1: Wind Reduction Features is identified as a means of reducing the project's exceedances of the wind comfort criterion. The Planning Commission may consider this measure as a condition of project approval. Its implementation would reduce the magnitude of less-than-significant wind impacts identified in this EIR.

Improvement Measure I-W-1: Wind Reduction Features

To reduce ground-level wind speeds and project comfort criteria exceedances in areas used for public gathering, such as Muni transit stops and crosswalk entrances, the Project Sponsor is encouraged to install, or facilitate installation of, wind reduction measures that could include but are not limited to structures, canopies, wind screens and landscaping as feasible. In so doing, the Project Sponsor would coordinate with the Planning Department and representatives of responsible City agencies or third parties, as may be warranted by the specific nature and location of the improvement, as applicable.

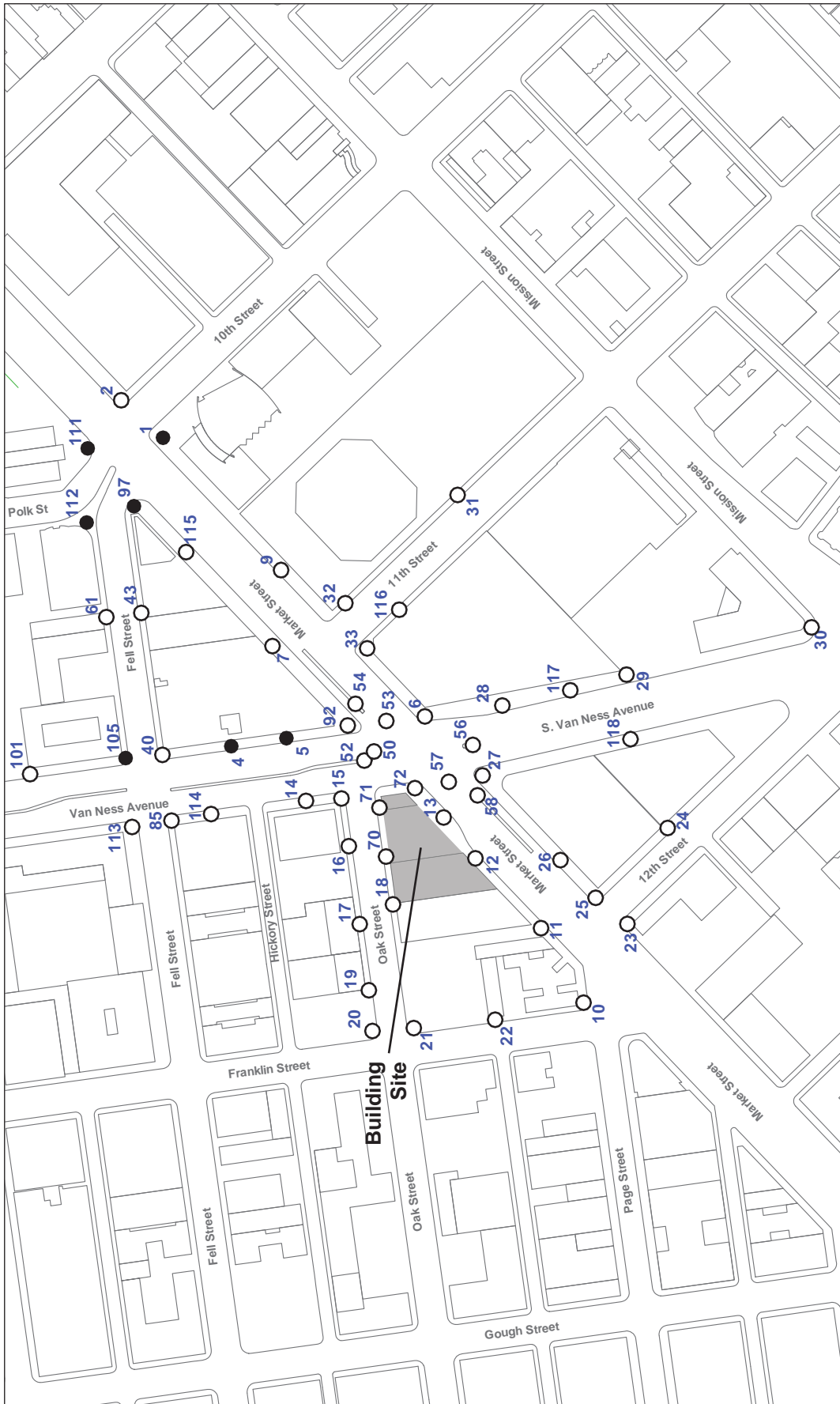
Wind Hazard Analysis for the Proposed Project

Existing Scenario

Existing wind speeds within publicly accessible pedestrian areas surrounding the project site would affect pedestrian safety at locations and times of day and year when occasional high winds reach hazardous conditions. Wind modeling of the Existing Scenario indicates that 7 of the 57 measured test points around the project site and vicinity exceed the equivalent hazard criterion of 36 mph one-minute average under the Existing Scenario, as established by Section 148 of the San Francisco Planning Code, while 50 of the 57 test points comply with the hazard criterion. See **Figure 4.D.2: Wind Hazard Results – Existing Scenario** and **Table 4.D.3: Wind Hazard Analysis Results**.

The study area is prone to hazardous wind conditions at specific locations on Van Ness Avenue, South Van Ness Avenue, and near Fox Plaza. As shown on **Table 4.D.3**, under the Existing Scenario, the 36-mph hazard criterion is exceeded at the following 7 of the 57 tested locations: test points 4 and 5 (at the eastern sidewalk of the Van Ness Avenue between Market Street and Fell Street); test points 1, 97, 111, and 112 (at the Fell Street/Market Street/Polk Street/10th Street intersection); and test point 105 (at the southeastern sidewalk of the Fell Street/Van Ness Avenue intersection). This table also shows the magnitude of the exceedance in terms of wind speeds and duration of exceedance.

These seven locations would collectively exceed the hazard criterion for a duration of 83 hours annually. Exceedances would range from 36 mph at test point 5 to 50 mph at test point 105. The average equivalent wind speed for the wind hazard analysis at the 57 test points is approximately 23.8 mph. The remaining 50 locations tested in the study area currently comply with the City's wind hazard criterion.



Hazard Criteria
 ○ Pass
 ● Exceeded

Source: BMT Fluid Mechanics Limited (2016)

ONE OAK PROJECT

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FIGURE 4.D.2: WIND HAZARD RESULTS - EXISTING SCENARIO

Wind Analysis Results															
Existing Scenario					Project Scenario					Cumulative Scenario					
Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Exceeds	Hours Change Relative to Existing	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing
47	30	e	46	27	e	-3	46	20	e	46	20	-10	46	20	-10
36	0		36	0		0	34	0		34	0	0	34	0	0
39	3	e	39	3	e	0	25	0		25	0	-3	25	0	-3
36	1	e	38	1	e	0	27	0		27	0	-1	27	0	-1
22	0		30	0		0	37	1		37	1	1	37	1	1
14	0		15	0		0	19	0		19	0	0	19	0	0
26	0		24	0		0	22	0		22	0	0	22	0	0
18	0		22	0		0	19	0		19	0	0	19	0	0
15	0		22	0		0	29	0		29	0	0	29	0	0
12	0		22	0		0	25	0		25	0	0	25	0	0
12	0		19	0		0	27	0		27	0	0	27	0	0
16	0		17	0		0	20	0		20	0	0	20	0	0
14	0		22	0		0	17	0		17	0	0	17	0	0
15	0		32	0		0	26	0		26	0	0	26	0	0
13	0		13	0		0	18	0		18	0	0	18	0	0
22	0		30	0		0	15	0		15	0	0	15	0	0
29	0		27	0		0	20	0		20	0	0	20	0	0
24	0		22	0		0	18	0		18	0	0	18	0	0
19	0		16	0		0	16	0		16	0	0	16	0	0
14	0		11	0		0	9	0		9	0	0	9	0	0
17	0		22	0		0	15	0		15	0	0	15	0	0
15	0		14	0		0	21	0		21	0	0	21	0	0
23	0		36	0		0	18	0		18	0	0	18	0	0
20	0		15	0		0	17	0		17	0	0	17	0	0
18	0		27	0		0	34	0		34	0	0	34	0	0
19	0		23	0		0	36	0		36	0	0	36	0	0
36	0		32	0		0	45	24		45	24	24	45	24	24
20	0		20	0		0	34	0		34	0	0	34	0	0
17	0		14	0		0	17	0		17	0	0	17	0	0
23	0		22	0		0	23	0		23	0	0	23	0	0
22	0		22	0		0	47	22		47	22	22	47	22	22
33	0		34	0		0	25	0		25	0	0	25	0	0
23	0		29	0		0	23	0		23	0	0	23	0	0
27	0		27	0		0	28	0		28	0	0	28	0	0
28	0		25	0		0	25	0		25	0	0	25	0	0
26	0		29	0		0	34	0		34	0	0	34	0	0
24	0		24	0		0	40	4		40	4	4	40	4	4
23	0		36	0		0	32	0		32	0	0	32	0	0
18	0		38	1	p	1	35	0		35	0	0	35	0	0
17	0		31	0		0	45	14		45	14	14	45	14	14
29	0		28	0		0	29	0		29	0	0	29	0	0
16	0		22	0		0	14	0		14	0	0	14	0	0
14	0		31	0		0	30	0		30	0	0	30	0	0
19	0		30	0		0	25	0		25	0	0	25	0	0

Existing Scenario				Project Scenario				Cumulative Scenario				
Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds
27	0		27	0	0		51	45	45	45	45	
38	1	e	37	1	0	e	38	2	1	2	1	
16	0		20	0	0		21	0	0	0	0	
50	40	e	50	41	1	e	49	32	-8	32	-8	
40	4	e	29	0	-4	-	29	0	-4	0	-4	
40	4	e	42	6	2	e	36	0	-4	0	-4	
32	0		31	0	0		27	0	0	0	0	
22	0		23	0	0		16	0	0	0	0	
19	0		19	0	0		13	0	0	0	0	
23	0		21	0	0		17	0	0	0	0	
23	0		19	0	0		48	42	42	42	42	
24	0		20	0	0		24	0	0	0	0	
Average	Sum	Sum	Average	Sum	Sum	Sum	Average	Sum	Sum	Sum	Sum	Sum
23.8	83	7	26.4	80	-3	7	27.2	206	+123	206	+123	+123
Existing, e				Existing, e								
				New, or increased time, p				New, or increased time, p				
				New, at new location, n				New, at new location, n				
				Eliminated by Proposed Project, -				Eliminated by Proposed Project, -				
7				6				New, or increased time, p				
				1				New, at new location, n				
				0				Eliminated by Proposed Project, -				
				1				New, or increased time, p				

Project Scenario

The total number of locations where the hazard criteria are exceeded would remain at seven locations under the Project Scenario. See **Figure 4.D.3: Wind Hazard Results – Project Scenario**. The proposed project includes placement of a wind canopy at the northeastern corner of the Polk Street and Market Street intersection. Wind conditions improve at this corner (test point 111 at the northern corner of the Polk Street/Fell Street/Market Street/10th Street intersection), and the existing hazard exceedance at this location would be eliminated. This configuration would create one hazard exceedance at test point 57 (at the western crosswalk of the Market Street/Van Ness Avenue intersection). Under the Project Scenario, the total duration of hazardous wind conditions would be reduced, from 83 hours annually under the Existing Scenario to 80 hours annually under the Project Scenario, which would constitute an improvement of three fewer hours of the duration of hazardous wind conditions.

The project would not alter wind in a manner that substantially affects public areas, which for CEQA purposes is the hazard criterion. This conclusion is based on no net increases in the number of test points that would exceed the hazard criteria in the Project Scenario versus the number of points exceeding the criterion under existing conditions. Further, the duration of hazardous winds would be reduced from 83 hours annually under existing conditions to 80 hours annually under a project scenario. Given that the project would reduce the annual duration of wind hazard hours in the site's vicinity, this EIR concludes that the proposed project's impacts on winds would be less than significant, and no mitigation measures are necessary.

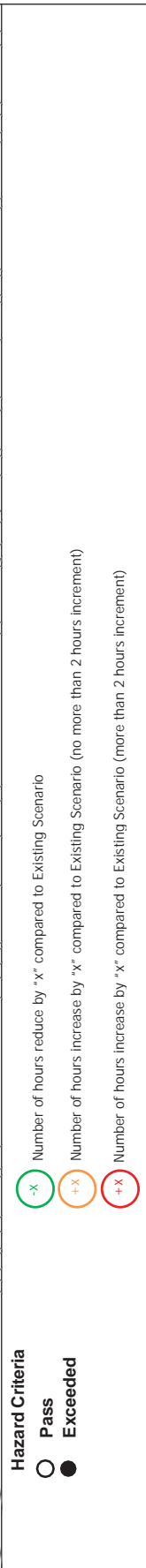
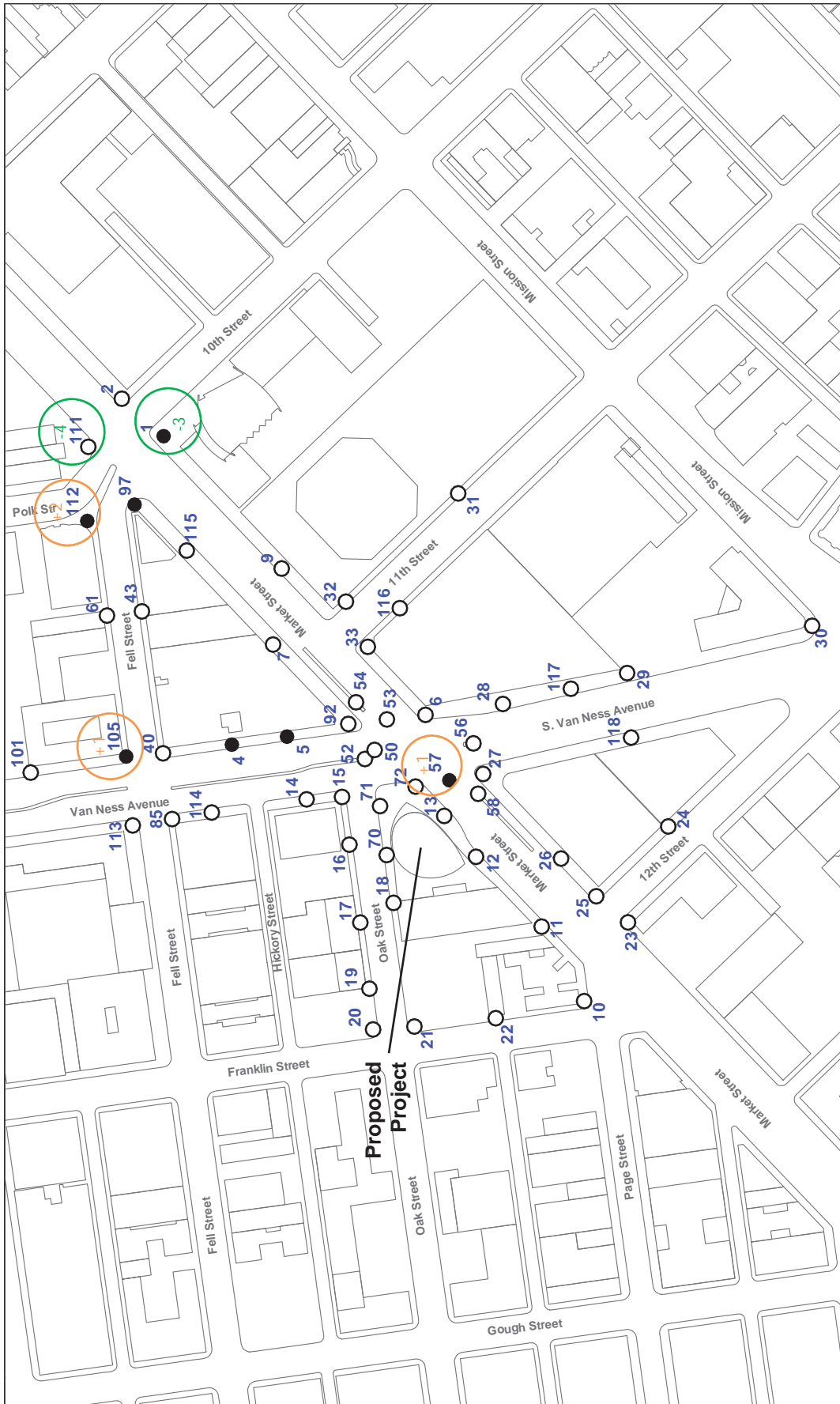
CUMULATIVE IMPACT EVALUATION

Impact C-W-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the project vicinity would not make a cumulatively considerable contribution to a significant cumulative wind impact. (*Less than Significant*)

As discussed under "Approach to Analysis," on pp. 4.D.4-4.D.6, testing for the Cumulative Scenario incorporates reasonably foreseeable future projects in the vicinity of the project site that could interact with the proposed project to alter ground-level wind conditions on and near the project site. The locations of the foreseeable projects modeled for the configuration are shown on **Figure 4.D.4: Wind Hazard Results – Cumulative Scenario**. The results of the wind tunnel testing for the Cumulative Scenario are summarized below.

Wind Comfort Analysis for the Cumulative Scenario

The discussion of the proposed project's effects with respect to the City's pedestrian comfort criteria under the Existing Scenario is presented here for informational purposes only, because the threshold used to identify significant impacts is that of the hazard criterion.

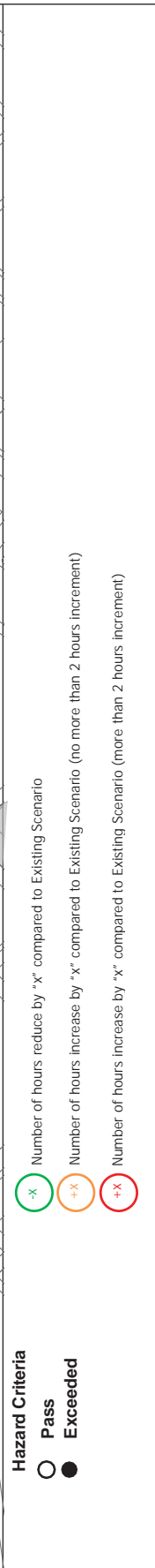
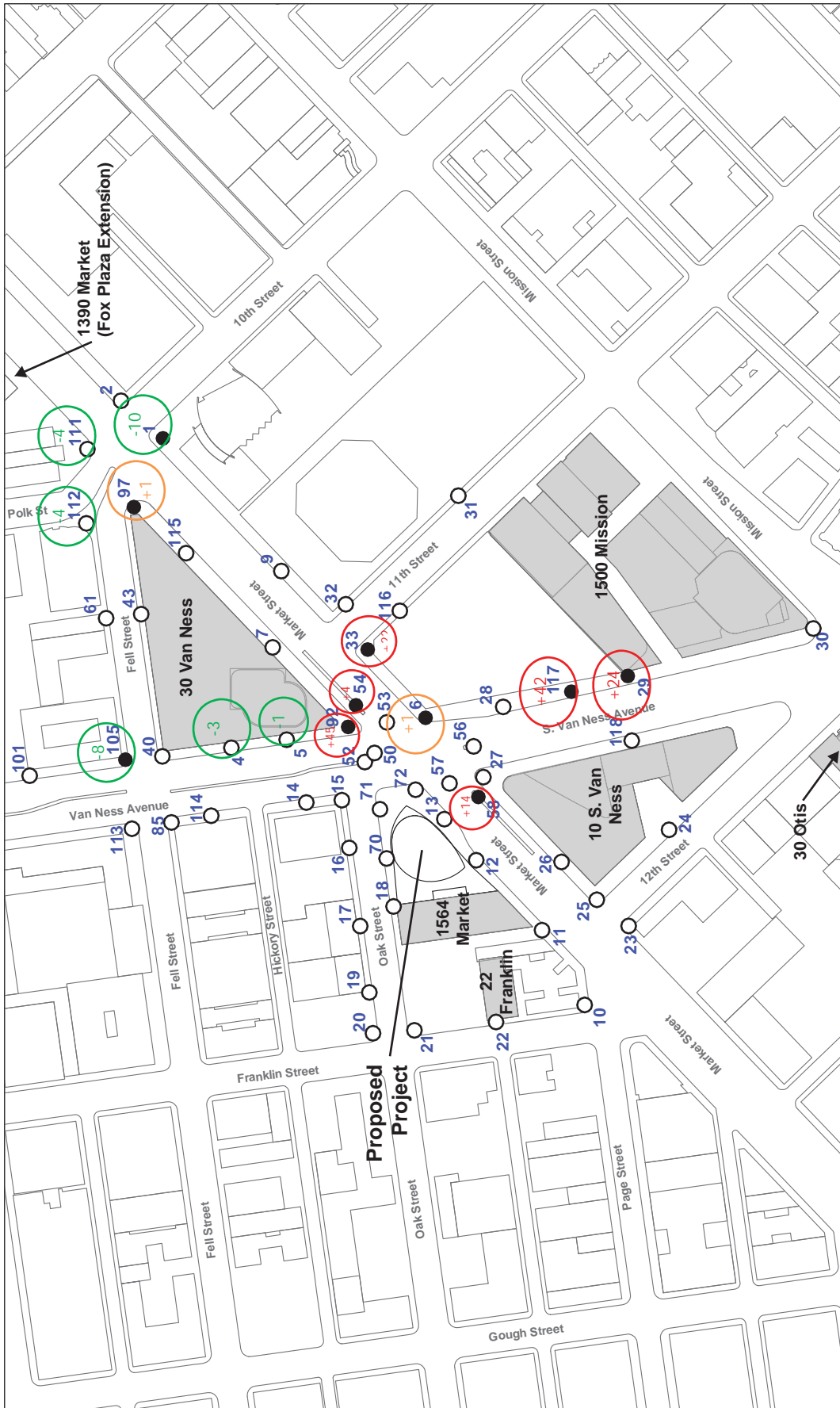


Source: BMT Fluid Mechanics Limited (2016)

ONE OAK PROJECT

2009.0159E

FIGURE 4.D.3: WIND HAZARD RESULTS - PROJECT SCENARIO



Source: BMT Fluid Mechanics Limited (2016)

ONE OAK PROJECT

2009.0159E

FIGURE 4.D.4: WIND HAZARD RESULTS - CUMULATIVE SCENARIO

Wind speeds were measured at 57 ground-level test points for the Cumulative Scenario. The locations of the test points are shown in **Figure 4.D.2** on p. 4.D.11, and the test results are shown in **Table 4.D.2** on pp. 4.D.10-4.D.11.

The average wind speed exceeded 10 percent of the time would increase from 12.6 mph under the Existing Scenario and 13.9 mph under the Project Scenario to 14.4 mph under the Cumulative Scenario, and the number of locations that exceed the comfort criterion would increase from 37 points under the Existing Scenario and 45 points under the Project Scenario to 46 test points under cumulative conditions.

The Cumulative Scenario indicates that 10 test points that meet the 11-mph comfort criterion under the Existing Scenario would exceed the comfort criterion under cumulative conditions. These test points are 11, 12, 13, 15, 16, 24, 26, 71, 72, and 101. The majority of the new points exceeding the pedestrian comfort criterion would be located on the western sidewalk of Van Ness Avenue between Hickory Street and Market Street, as well as the northern and southern sidewalks of Market Street between 12th Street and Van Ness Avenue).

Under the Cumulative Scenario, one existing exceedance of the pedestrian comfort criterion would be eliminated at test point 114 (on the western sidewalk of Van Ness Avenue between Fell Street and Hickory Street).

Wind Hazard Analysis for the Cumulative Scenario

Under the Cumulative Scenario, the total number of locations at which the hazard criterion is exceeded would increase from seven locations under the Existing Scenario and Project Scenario to 10 locations, representing a net increase of three additional exceedance locations. See **Table 4.D.3** on p. 4.D.15-4.D.16.

Compared to the wind hazard conditions under the Existing Scenario, the Cumulative Scenario would eliminate four hazard exceedances located at test points 111 and 112 (the northern corners of the Polk Street/Fell Street/ Market Street/12th Street intersection), and test points 4 and 5 (on the eastern sidewalk of Van Ness Avenue between Market Street and Fell Street) as illustrated on **Figure 4.D.4** on p. 4.D.18.

Compared to wind hazard conditions under both the Existing Scenario and the Project Scenario the Cumulative Scenario would create seven hazard exceedances at test points 6, 54, 58, and 92 (the eastern and western intersection of Market Street and Van Ness Avenue/South Van Ness Avenue), test point 33 (at the southwestern corner of the Market Street/11th Street intersection), and at test points 29 and 117 (along the eastern side of Van Ness Avenue between Market Street and Mission Street).

Three existing hazard exceedances would remain under the Cumulative Scenario. At test point 1 (at the Market Street / Fell Street / 10th Street intersection) wind speed exceeded for one hour per year under the Cumulative Scenario would be 46 mph (compared to 47 mph under the Existing Scenario and 46 mph under the Project Scenario), and hours of exceedance under the Cumulative Scenario would be 20 hours per year (compared to 30 hours under the Existing Scenario and 27 hours under the Project Scenario). At test point 97 (at the Market Street / Fell Street / 10th Street intersection) wind speed exceeded for one hour per year under the Cumulative Scenario would be 38 mph (compared to 38 mph under the Existing Scenario and 37 mph under the Project Scenario), and hours of exceedance under the Cumulative Scenario would be 2 hours per year (compared to 1 hour under the Existing Scenario and 1 hour under the Project Scenario). At test point 105 (on the northeast corner of the Van Ness Avenue / Fell Street intersection) wind speed exceeded for one hour per year under the Cumulative Scenario would be 49 mph (compared to 50 mph under the Existing Scenario and 50 mph under the Project Scenario), and hours of exceedance under the Cumulative Scenario would be 32 hours per year (compared to 40 hours under the Existing Scenario and 41 hour under the Project Scenario).

Under the Cumulative Scenario, the duration of hazardous winds would more than double compared to the Existing Scenario and Project Scenario, increasing by 123 hours and 126 hours, respectively, to a total of 206 hours per year. These data indicate a significant cumulative impact under the Cumulative Scenario. As such, the analysis of cumulative wind impact now turns to assessing whether the proposed project makes a cumulatively considerable contribution to the significant cumulative impact.

Additional Cumulative Test Configurations

Additional wind tunnel analyses have been conducted to explore the interactions between the project and foreseeable future projects in the vicinity of the Market Street and Van Ness Avenue intersection. The purpose of these additional test configurations is to investigate the relative influence each of the foreseeable projects may have on cumulative wind conditions and to provide data that informs a decision regarding the project's contribution to cumulative wind effects.⁴ This testing uses an approach known as statistical regression analysis in which one of the independent variables (e.g., a particular foreseeable future project) is altered (removed from) the model while all of the other independent variables (e.g., other future foreseeable projects)

⁴ This exploratory study of cumulative wind impacts used selected test points where hazardous winds were shown to occur either in the Existing Scenario, in the Project Scenario, or in the initial analysis of cumulative impacts that accounted for all of the reasonably foreseeable cumulative development projects. The test points showing hazardous wind conditions in these three scenarios do not necessarily overlap. Therefore, there is a larger number of test points than the maximum number showing hazardous winds in any one scenario. The test points located in the three crosswalks at the intersection of Van Ness Avenue / Market Street were not included; as a result, the total number of hours that exceed the hazard criterion in the Project Scenario is reduced by one hour, from 80 to 79, because in that Scenario test point # 57 showed a one-hour exceedance of the hazard criterion.

remain unchanged in the model in order to examine how the value of a dependent variable, which are the hours of hazardous wind exceedance, may change.

For this additional study, the physical model tested in the wind tunnel was adjusted to account for four additional test configurations: **Cumulative Configuration #1**, in which the future 30 Van Ness Avenue project was removed; **Cumulative Configuration #2**, in which the proposed 10 South Van Ness Avenue was removed; **Cumulative Configuration #3**, in which both 30 Van Ness Avenue and 10 South Van Ness Avenue projects were removed; and **Cumulative Configuration #4**, in which the foreseeable project at 1500 Mission Street was removed. See **Table 4.D.4: Summary of Additional Cumulative Wind Analysis Results**.

Table 4.D.4: Summary of Additional Cumulative Wind Analysis Results

Configuration	Total Hours	Number of Locations
Existing Scenario	83	7
Project Scenario	79	6
Cumulative Scenario	206	10
Additional Cumulative Configuration #1 <i>All except foreseeable project at 30 Van Ness Ave, plus Proposed Project</i>	153	8
Additional Cumulative Configuration #2 <i>All except foreseeable project 10 South Van Ness Ave, plus Proposed Project</i>	177	8
Additional Cumulative Configuration #3 <i>All except foreseeable 10 South Van Ness and 30 Van Ness Ave, projects plus Proposed Project</i>	79	6
Additional Cumulative Configuration #4 <i>All except foreseeable 1500 Mission St, project plus Proposed Project</i>	231	12

Source: BMT Fluid Dynamics, 2016

For each configuration, existing buildings on sites that were removed are replaced with the existing conditions specific to that site. The configurations were then wind tunnel tested to identify whether the locations where the hazard criterion is exceeded would change and to assess changes, if any in the duration of exceedances (annual hours).

The results of these cumulative test configurations were compared with the results of the Existing Scenario (existing conditions without the proposed project), the Project Scenario (existing conditions with the proposed project) and the results of the Cumulative Scenario (reasonably foreseeable future projects, as listed below in combination with the proposed project).

As discussed above and summarized in Table 4.D.2, the Project Scenario would modestly decrease total wind exceedance hours and the total number of exceedance locations from those under the Existing Scenario. As shown on Table 4.D.2, compared to the Existing Scenario, the

Project Scenario would decrease total hazard exceedance hours by 4 hours (from 83 to 79) and would decrease the total number of exceedance locations by 1 (from 7 to 6).

As discussed above and summarized in Table 4.D.2, the Cumulative Scenario would substantially increase total wind exceedance hours and the total number of exceedance locations from those under the Existing Scenario. Compared to the Existing Scenario, the Cumulative Scenario would increase total hazard exceedances by 123 total hours (from 83 to 206) and would increase the total number of exceedance locations by 3 (from 7 to 10).

Substantial decreases in total wind hazard exceedance hours and total number of exceedance locations result from the removal of only the reasonably foreseeable development at 30 Van Ness Avenue from Configuration # 1). Compared to the Cumulative Scenario for the project, Configuration # 1 would decrease total hazard exceedance hours by 53 hours (from 206 to 153) and would decrease the total number of exceedance locations by 2 (from 10 to 8).

Likewise, substantial decreases in total wind hazard exceedances would result from the elimination of the reasonably foreseeable development at 10 South Van Ness Avenue from the Cumulative Scenario (Configuration # 2). Compared to the Cumulative Scenario for the project, Configuration # 2 would decrease total hazard exceedance hours by 29 hours (from 206 to 177) and would reduce the total number of exceedance locations by 2 (from 10 to 8).

The wind outcomes for Configuration #3 indicate that the greatest decreases in total wind hazard exceedances would result from the elimination of the reasonably foreseeable development projects at both 30 Van Ness Avenue and 10 South Van Ness Avenue. Compared to the Cumulative Scenario project, Configuration # 3 would result in a 127-hour decrease in total hazard exceedance hours (from 206 to 79) and would reduce the total number of exceedance locations by 4 (from 10 to 6). As with the Project Scenario, Configuration # 3 results in improved overall wind conditions compared to the Existing Scenario. Compared to the Existing Scenario, Configuration # 3 decreases total hazard exceedance hours by 4 hours (from 83 to 79) and decreases the total number of exceedance locations by 1 (from 7 to 6).

Substantial increases in the total hours of hazard exceedance and the number of exceedance locations result from the elimination of the foreseeable development at 1500 Mission Street under Configuration #4 compared to the Existing Scenario, Project Scenario, Cumulative Scenario, and each additional cumulative configuration. This result appears to indicate that the presence of the reasonably foreseeable project at 1500 Mission Street may improve wind conditions in the area overall, rather than contribute to the cumulative wind impact of past, present, and reasonably foreseeable projects.

Conclusion

As discussed above, removing the reasonably foreseeable projects at 30 Van Ness Avenue or 10 South Van Ness Avenue each results in substantial improvements in wind conditions. Removing both of these reasonably foreseeable projects from the Cumulative Scenario substantially improves overall cumulative wind hazard conditions in the area compared to the Cumulative Scenario and, like the Project Scenario, results in a modest improvement over the Existing Scenario as well. By testing the project configurations in the above manner, the data leads to the conclusion that in the cumulative condition, both 30 Van Ness Avenue and 10 South Van Ness Avenue contribute considerably to the significant wind hazards of the Cumulative Scenario because the number of wind hazards are reduced significantly when either is removed from the Cumulative Scenario. While not entirely conclusive, these data support a reasonable inference that the proposed project would not contribute considerably to increases in total hazard exceedance hours and the total number of exceedance locations under the Cumulative Scenario. For these reasons the Proposed Project would not make a cumulatively considerable contribution to a significant cumulative wind impact. No mitigation measures are required.

It is important to note that the reasonably foreseeable projects at 30 Van Ness Avenue and 10 South Van Ness Avenue were conceptual at the time wind tunnel tests were conducted for the Proposed Project. As such, the modeling of these reasonably foreseeable projects was based on a preliminary massing scheme allowable under existing height and bulk controls but not necessarily allowable under Section 148. Actual building designs for these sites will differ from those modeled for this analysis, because Section 148 of the Planning Code sets forth a performance standard that projects in the C-3 District must comply with in order to obtain approval. Consequently, the actual building designs for the reasonably foreseeable projects included in this cumulative study will likely include different massing, articulation and architectural features to improve their wind performance.

These and other reasonably foreseeable cumulative projects within the C-3 District must comply with Planning Code Section 148, which prohibits a project from creating net new locations with wind speeds that exceed its hazard criterion. Under Section 148, no exception may be granted for buildings that result in increases in the number of test point locations that exceed the wind hazard criterion and result in an increase of wind hazard hours compared to existing conditions at the time of testing. Section 148 is a rigorous performance standard, the future adherence to which is presumed for each proposed new building. However, Section 148 only requires that this standard be met for each project and does not apply in the cumulative context. As future projects in the vicinity of the proposed project and in the C-3 District are proposed for approval, Section 148 mandates that no approval can be granted unless the proposed building is designed to meet the performance criteria of Section 148, which is the same as the threshold for significance under CEQA (wind hazards). At the time that each future project is seeking approval, its proposed final

design is submitted for wind analysis and it will be modeled in the context of the then-existing baseline setting of buildings, including newer buildings that have already complied with Section 148. Thus, as each future project proposed in the C-3 District seeks approval, Section 148 mandates that each proposed future design meet the performance standard set forth in Section 148, based on the actual existing conditions at the time of approval.

By contrast, the City's methodology for CEQA cumulative analysis does not assume the imposition of the Section 148 performance standard. The reasonably foreseeable projects discussed in this cumulative scenario are all located in the C-3 District and therefore subject to the imposition of Section 148's performance standard. The Cumulative Scenario did not include Section 148-compliant models of the reasonably foreseeable future projects because such designs were not available at the time of this Project's testing. Consequently, the Cumulative Scenario does not take into consideration the application of Section 148's performance standard on other future buildings. As such, this cumulative impacts analysis represents a conservative disclosure of cumulative impacts (*i.e.*, one that may overstate, rather than understate the magnitude of cumulative wind impacts) as it is presumed that all future buildings in the C-3 District, the specific designs for which are unknowable at this time, would each have to comply with Section 148.

E. SHADOW

Section 4.E, Shadow, addresses the shadow impacts of the proposed project on publicly accessible open spaces and recreation facilities in the vicinity of the project site. The Environmental Setting discussion identifies existing public and private publicly accessible open spaces and recreation facilities in the site’s vicinity, specifies the City’s applicable regulations related to shadow and solar access, and describes existing shadows on existing public and private open spaces and recreation facilities. The Impacts discussion analyzes whether the proposed project would shade parks and open spaces in such a manner that substantially affects outdoor recreation facilities or other public areas. The Impacts subsection also evaluates the potential of the project to combine with past, present, and reasonably foreseeable future projects, resulting in potentially cumulative shadow effects. The analysis, calculations and shadow diagrams have been prepared by an independent shadow consultant and are the primary sources of information included in this section.¹

ENVIRONMENTAL SETTING

Three publicly accessible outdoor open spaces within Hayes Valley are potentially within reach of the proposed project’s shadow: Patricia’s Green, Page and Laguna Mini Park, and Koshland Park.² (See **Figure 4.E.1: Location of Affected Parks in Relation to the Proposed Project.**) These open spaces are under the jurisdiction of the Recreation and Park Commission and are subject to the provisions of the Sunlight Ordinance, as articulated in Planning Code Section 295 (this Planning Code regulation is discussed under “Regulatory Framework” on pp. 4.E.7-4.E.10).

¹ ESA, Technical Memorandum: *Evaluation of Potential Proposition K Shadows for the Proposed One Oak Street High-Rise Project, San Francisco, CA*, November 2016.

² This determination was made based on the Planning Department’s shadow fan, discussed under “Approach to Analysis” on p. 4.E.11. The shadow fan shows the maximum reach of project shadow throughout the entire day and entire year. Hayes Valley Playground, a Recreation and Park Commission property at Hayes and Buchanan streets, is not within the reach of project shadow under Planning Code Section 295. It was therefore eliminated from further review of shadow impacts.



Source: ESA (2016)

ONE OAK PROJECT

FIGURE 4.E.1: LOCATION OF AFFECTED PARKS IN RELATION TO PROPOSED PROJECT

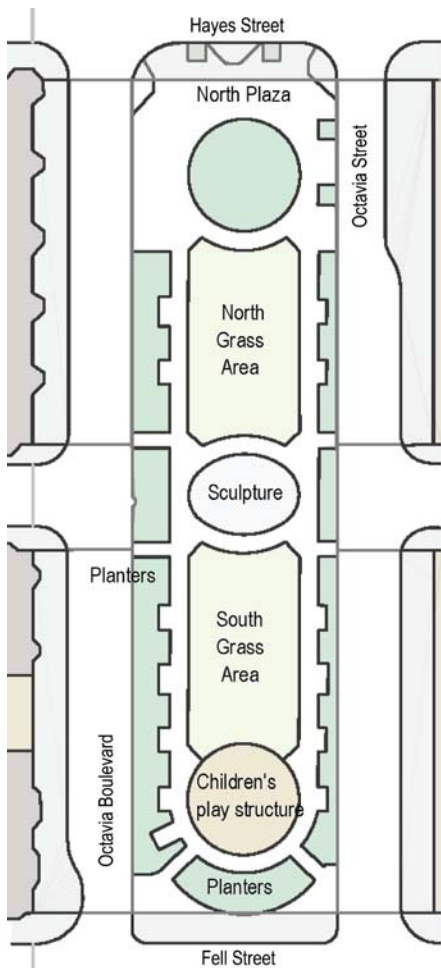
2009.0159E

POTENTIALLY AFFECTED RECREATION AND PARK COMMISSION PROPERTIES

Patricia's Green

Patricia's Green is an approximately 18,736-square-foot (sq. ft.) urban park on the 400 block of Octavia Street, in Hayes Valley, in the Western Addition neighborhood of San Francisco.³

Patricia's Green is bounded by Hayes Street to the north, by Fell Street to the south, and by the north- and south-bound lanes of Octavia Street to the east and west (see inset below). It occupies the area immediately beyond the north end of Octavia



Boulevard, the major surface roadway formed to replace the elevated Central Freeway, since removed, between Market Street and Fell Street (portions of Lots 33 and 67 of Assessor's Block 817 and of the Octavia Street right-of-way). The *Market and Octavia Neighborhood Plan* envisioned Patricia's Green (then called "Hayes Green") as an urban square for the neighborhood, bounded and defined by existing and proposed residential infill buildings along its east and west sides. The central location of Patricia's Green in a dense residential neighborhood gives rise to a substantial amount of use by people who pass through the parks as well as those who use the park in a variety of ways.

Park Features

Patricia's Green slopes gently from the north (Hayes Street) end to the south (Fell Street) and is symmetrically divided into five laterally connected interior sections. At the north end is a paved plaza with benches that surround a circular planting area that contains a pepper tree; at the south end is a similar

Source: ESA, 2016

Patricia's Green Plan

³ The area of the park studied in the October 2016 Shadow Technical Memorandum is 18,736 sq. ft. At the time of scoping this study, there was no formal consensus on the exact square footage of Patricia's Green or the precise location of its boundaries. For purposes of this EIR, the area studied includes all recreational areas of the park and relied on the best information available at that time. It is not anticipated that an updated park square footage and boundaries would change any of the reasoning or conclusions of the analysis in this Draft EIR regarding the project's shadow impacts on Patricia's Green. Field observations of the uses of the park, and the locations of those uses at the time when shadow would be cast, would not be altered by a relatively small variation in the quantity of shadow reported.

paved circle with benches that surround a partially fenced children's play structure; located between the two circles are two grassy areas separated by a central paved area that features sculpture. Paved north-south walkways with benches flank and connect these interior areas, which contain both hard- and planted spaces and provide areas for both active and passive uses. Planting strips on the east and west sides of the park contain trees and shrubbery that visually separate the walkways from Octavia Street.

Children's Area and Play Structure

A children's area is at the south end of the park, where a large, partially fenced, circular play structure stands, with benches that circle the structure. This provides a separated activity area for children and seating for adults who supervise them. The children's area is visually separated and physically protected from Fell Street and the approaching traffic on Octavia Street to the south by a wide planter.

Walkway, Planters, and Sculpture

The park's twin paved walkways form the north-south spine and circulation route around the park. The walkways link the north plaza, at the Hayes Street entrance, the north and south grass areas with the sculpture area in the center, the children's area to the south, and the south entrance at Fell Street. Benches face into the park at intervals along the walkways and provide formal seating in the park. Behind the benches on the west are raised planters that provide space for trees, shrubs, and vegetation as well as informal seating for park users. Benches and ground-level planters line the east side of the park. Each planter along the east walkway contains a line of ginkgo trees, spaced about 25 feet apart. Most of these ginkgos are now 12 to 16 feet tall. Ginkgos are deciduous and have relatively dense foliage and contribute to early morning shadow under existing conditions, but are bare from November through March. During those months morning sunlight is diffused through the tree canopy.

Sculpture Area

The sculpture area is a paved oval, surrounded by bollards, that holds one or more outdoor sculptures that are changed at intervals. Benches provide seating that enables people to face into the sculpture area or away from it, toward the grass.

North and South Grass Areas

The park's two grass areas flank the central sculpture area. These areas of grass are enclosed by the twin walkways that form the north-south spine of the park.

North Plaza

At the park's Hayes Street end is a paved plaza. Within the plaza a ring of benches and four groups of tables and benches surround a circular planting area that contains a pepper tree. Flanking the north plaza on the east, north, and west sides are six palm trees.

Koshland Park

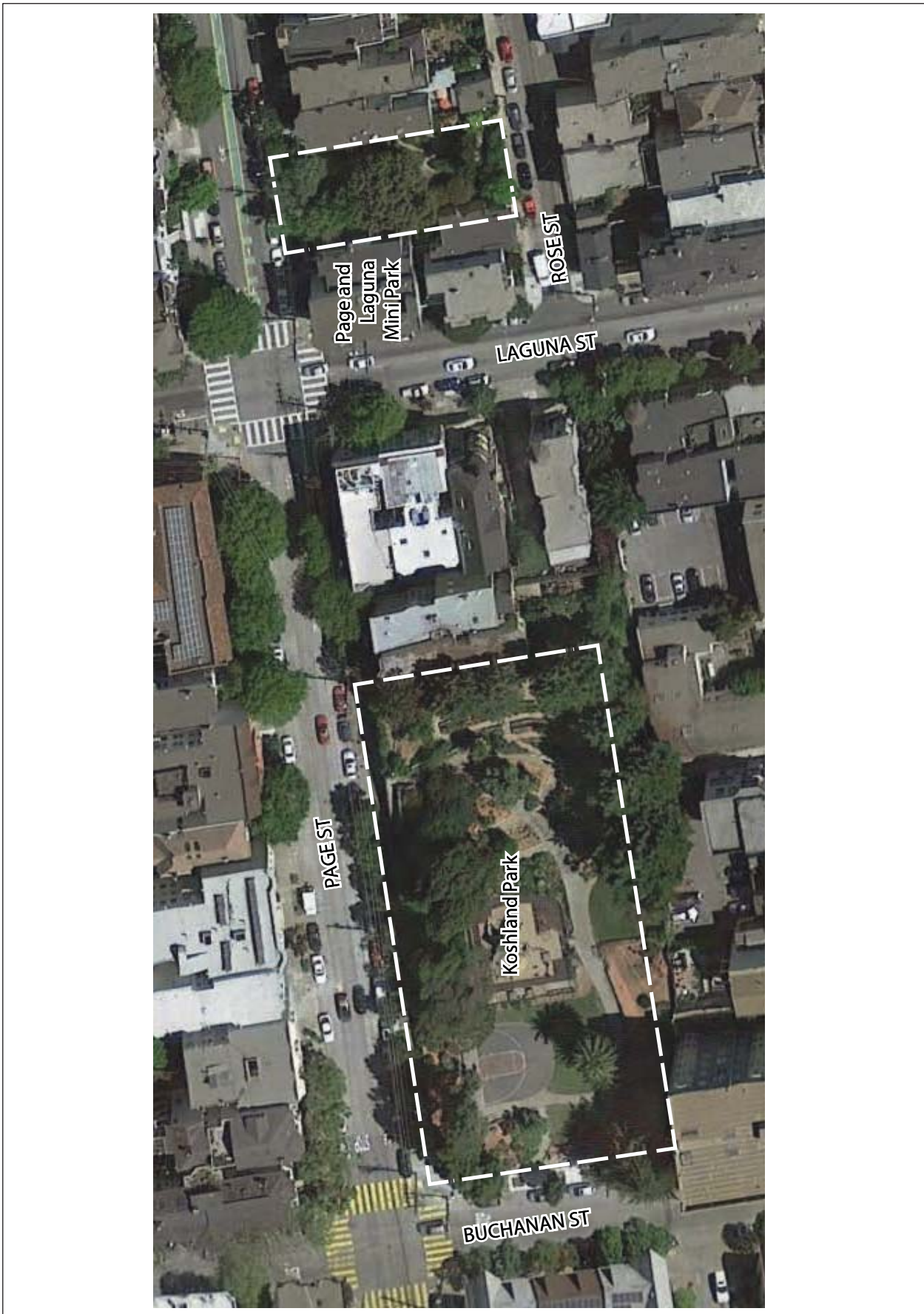
Koshland Park, located approximately 1,900 feet southwest of the project site on Lot 026 of Assessor's Block 0851, has an area of approximately 36,200 sq. ft. (see **Figure 4.E.2: Koshland Park and Page and Laguna Mini Park**). This neighborhood park at the corner of Buchanan and Page Streets contains a grass area, a play structure with a sand pit, a half basketball court, and a community garden. Located on a hilltop site, Koshland Park's main entrance is near the mid-point of the lot and is at the grade of Buchanan Street, at an elevation of approximately 160 feet above sea level (asl). The park is graded to provide a children's playground and a grass and landscaped area generally at this level, with a steep northern slope, landscaped with large trees, that ends at a retaining wall that, in turn, slopes downward along Page Street to the park's lowest point, at an elevation of approximately 125 feet asl. The eastern portion of the park slopes steeply down to the north and east where it runs into retaining walls at the property lines. Terraces with community garden plots are accessible via a mid-block Page Street entrance, as well as from the main entrance on Buchanan Street.

Adjacent residential buildings to the east cast shadow on the park in the early mornings throughout the year. Buildings to the south cast shadows on the park in mid-day throughout the year.

Page and Laguna Mini Park

Page and Laguna Mini Park, located in Hayes Valley approximately 1,550 feet southwest of the project site on Lot 015 of Assessor's Block 0852 (see Figure 4.E.2). This fenced, 6,600-square-foot landscaped linear park has a curving central walkway and a community garden. The park fronts on Page Street, which is lined with mature street trees primarily at the west side of the park.

Existing buildings along the park's long east and west sides shadow much of the park in early morning and late afternoon throughout the year. The southernmost third of the park, along Rose Street, has the most exposure to sunlight and contains a community garden, as well as benches and several large trees.



Source: Property Information Map, San Francisco Planning Department (2016)

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FIGURE 4.E.2: KOSHLAND PARK AND PAGE AND LAGUNA MINI PARK

OTHER OPEN SPACE

Privately Owned Public Open Space

There is no outdoor Privately Owned Public Open Space (POPOS) within the potential reach of project shadow. The nearest POPOS is located in the front lobby of 77 Van Ness Avenue. As this space is located indoors, it is not an outdoor recreation facility for the purposes of CEQA as it is applied in San Francisco.

Public Sidewalks

The public sidewalks in the vicinity of the project site are shadowed by existing buildings throughout the day and throughout the year. In general, the sidewalks are shadowed in the early morning and the late afternoon and receive the greatest amount of sunlight during the middle of the day.

REGULATORY FRAMEWORK

SAN FRANCISCO GENERAL PLAN

The *San Francisco General Plan (General Plan)* contains objectives and policies that are related to preserving sunlight on open spaces and other public areas. These objectives and policies are found in the Recreation and Open Space Element and the Urban Design Element.

Recreation and Open Space Element

The Recreation and Open Space Element of the *General Plan* Policy 1.9 states,

Solar access to public open space should be protected. In San Francisco, presence of the sun's warming rays is essential to enjoying open space. Climatic factors, including ambient temperature, humidity, and wind, generally combine to create a comfortable climate only when direct sunlight is present. Therefore, the shadows created by new development nearby can critically diminish the utility and comfort of the open space.

Shadows are particularly a problem in downtown districts and in neighborhoods immediately adjacent to the downtown core, where there is a limited amount of open space, where there is pressure for new development, and where zoning controls allow tall buildings. But the problem potentially exists wherever tall buildings near open space are permitted.

Properties under the jurisdiction of the Recreation and Park Department or designated for acquisition are protected by a voter-approved Planning Code amendment. It restricts the construction of any structure exceeding forty feet in height that would cast a shadow that is adverse to the use of the park from between one hour after sunrise to one hour before sunset, unless it is determined

that the impact on the use of the space would be insignificant. In determining whether a new shadow cast by a development is adverse to the use of a particular property, the City considers several quantitative and qualitative criteria, including the size of the park property, the amount of existing shadow, and the timing, size, location, and duration of the new shadow and the public good served by the building.

The City should support more specific protections elsewhere to maintain sunlight in these spaces during the hours of their most intensive use while balancing this with the need for new development to accommodate a growing population in the City

Urban Design Element

The *General Plan* Urban Design Element Policy 3.4 calls for the promotion of building forms that will respect and improve the integrity of open spaces and other public areas. Buildings to the south, east, and west of parks and plazas should be limited in height or effectively oriented so as not to prevent the penetration of sunlight to such parks and plazas. Large buildings and developments should, where feasible, provide ground-level open space on their sites, well situated for public access and for sunlight penetration.

Market and Octavia Neighborhood Plan

To address shadow effects on public and publicly accessible open space resulting from new development, the *Market and Octavia Neighborhood Plan* (MO Plan) includes policies to ensure that “tower forms allow adequate light and air to reach dwelling units and minimize shadow to streets and open spaces” and to proportionally relate building podium street wall height to the width of the adjacent streets.⁴ Relative to the project site, Policy 1.2.8 of the MO Plan calls for the development of slender residential towers above the building base along the Market Street corridor. Policy 7.12 further encourages the use of slender residential towers whose form and bulk are carefully controlled so that they “are not overly imposing on the skyline and do not produce excessive wind or shadows on public spaces.”

SAN FRANCISCO PLANNING CODE

Section 101.1

In November 1986, the voters of San Francisco approved Proposition M (the Accountable Planning Initiative), which added Section 101.1 to the Planning Code and established eight Priority Policies. These Priority Policies shall be the basis upon which inconsistencies in the

⁴ City and County of San Francisco, *Market and Octavia Neighborhood Plan*, adopted May 30, 2008, p. 14.

General Plan are resolved. Priority Policy No. 8 calls for the protection of parks and open space and their access to sunlight and vistas.

Prior to issuing a permit for any project which requires an Initial Study under CEQA, prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of consistency with the *General Plan*, the City is required to find that the proposed project or legislation would be consistent with the Priority Policies.

Section 147

Because the proposed project is within the C-3 District, the proposed project is subject to Planning Code Section 147, which requires that all new development and additions to existing structures where the height exceeds 50 feet must be shaped to minimize shadow on public plazas or other publicly accessible open spaces other than those protected by Section 295 (Sunlight Ordinance), “in accordance with the guidelines of good design and without unduly restricting the development potential of the property.” The amount of area shadowed, the duration of the shadow, and the importance of sunlight to the type of open space being shadowed are important factors to consider when determining compliance with this criterion.

Section 295

In 1984, San Francisco voters approved an initiative known as “Proposition K, The Sunlight Ordinance,” which was codified in 1985 as Planning Code Section 295. Section 295 prohibits the approval of “any structure that would cast any shade or shadow upon any property under the jurisdiction of, or designated for acquisition by, the Recreation and Park Commission” unless the Planning Commission, with review and comment by the Recreation and Park Commission, has found that the shadows cast by a proposed project would not have an adverse impact on the use of the property. Section 295 does not apply to structures that do not exceed 40 feet in height. The period analyzed is from the first hour after sunrise until the last hour before sunset.

On February 7, 1989, pursuant to Proposition K, the Planning Commission and the Recreation and Park Commission adopted a joint resolution adopting criteria for determination of significant shadows in 14 downtown parks, as described in a February 3, 1989, memorandum to the Planning Commission and the Recreation and Park Commission regarding “Proposition K, The Sunlight Ordinance.” These criteria establish an “absolute cumulative limit” (ACL) for new shadow allowed on these parks, as well as qualitative criteria for allocating the ACL among individual development projects. The ACL for a particular park is expressed as a percentage of the theoretical annual available sunlight (TAAS) on that park. The difference between the ACL and the amount of existing shadow on a particular park is commonly referred to as the “shadow budget” for that park. The shadow budget is then allocated to individual projects within the ACL based on qualitative criteria established for each park, which vary by park but may include factors

such as the time of day, the time of year, shadow characteristics (size, duration, location), and the public good served by the building casting the shadow.

The Planning Commission and the Recreation and Park Commission have not established Absolute Cumulative Limits for new shadow on Patricia's Green, Page and Laguna Mini Park, and Koshland Park. This EIR analyzes the proposed project's shadow impacts on the three affected parks that are subject to the provisions of Planning Code Section 295.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE THRESHOLDS

The threshold for determining the significance of impacts in this analysis is consistent with the environmental checklist in Appendix G of the State CEQA Guidelines, which has been adopted and modified by the San Francisco Planning Department. For the purpose of this analysis, the following applicable threshold is used. The project would result in a significant shadow impact if it would:

- Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas.

The thresholds for determining the significance of shadow impacts in San Francisco pursuant to CEQA and Planning Code Section 295 are different. The significance threshold for environmental review addresses a broader array of shadow-related considerations that may include not only quantitative criteria, but also how affected open spaces are used; time of day and/or time of year of use and/or shadowing; physical layout and facilities affected; the intensity, size, shape, and location of the shadow; and the proportion of open space affected. If the Planning Department determines, based on these factors, that the use of an affected open space or recreational facility would be substantially and adversely affected, then the impact would be significant for the purposes of CEQA. There may be situations under which new shadow that would be considered significant under Planning Code Section 295 would not have a significant environmental impact under CEQA because quantity of net new shadow is only a part of the consideration used in the evaluation of a shadow's significance.

Compliance with Section 295 occurs independently of this EIR's analysis and evaluation of shadow impacts. The purpose of the analysis in this EIR is to provide the public and City decision-makers with information that sufficiently describes the proposed project's shadow in terms of the types of parks and open spaces that it would affect, when and where the shadow would occur, what the anticipated duration of the shadow would be, and whether the shadow could substantially and adversely affect any activities or uses in the subject parks or open spaces.

APPROACH TO ANALYSIS

Shadow Fan

In order to determine whether any properties under the jurisdiction of the Recreation and Park Commission could be potentially be affected by project shadow, the Planning Department prepared a “shadow fan” diagram. The shadow fan is a tool that plots the maximum potential reach of project shadow over the course of a year (from one hour after sunrise until one hour before sunset for the spring and fall equinoxes and summer and spring solstices) relative to the location of nearby open spaces, recreation facilities, and publicly accessible parks. The shadow fan accounts for topographical variation but does not account for existing shadows cast by existing buildings. The shadow fan is used by the Planning Department as the basis for initially identifying which open spaces, recreation facilities, and parks merit further study. Those that are outside the maximum potential reach of project shadow do not require further study.⁵

Shadow Model

As discussed on p. 4.E.1, an independent consultant developed a computer shadow model using site survey data and project data to create a digital model for the purpose of evaluating the project’s shadow impacts. Existing buildings adjacent and in the vicinity of each affected park were identified and modeled using aerial photography and photogrammetric mapping data. The digital model reflects a minimum level of detail and includes only those surrounding buildings that are needed to represent the shadows that could fall on the surface of each park from one hour after sunrise to one hour before sunset as defined in Section 295.

Consistent with Section 295, for the purposes of describing the timing of shadow impacts on parks in this section, the “beginning of the day” refers to a point in time that is one hour after sunrise on given day. Correspondingly, the “end of the day” would refer to one hour before sunset (although there are no PM shadow impacts on parks identified in this section). These times fluctuate throughout the year based on the day and season.

Shadow Calculations

The model produces a spreadsheet that quantifies, in a measurement referred to as “square-foot-hours”, which accounts for the amount of shadow cast by existing buildings, the amount of net new shadow cast by the proposed project, and the remaining amount of sunlight on the subject open space over a period of time.⁶ These data are sampled at 15-minute intervals beginning on

⁵ San Francisco Planning Department, One Oak Street Project Shadow Fan, Case File No. 2009.0159K.

⁶ The shadow calculations are available for public review at the Planning Department in case file 2009.0159EK.

the summer solstice and then once a week for half a year until the winter solstice.⁷ The shadow calculations serve as the basis for the quantitative discussion of shadow impacts. Certain parks may be assigned “Absolute Cumulative Limits” (ACLs), which are shadow budgets that establish absolute cumulative limits for additional shadows expressed as a percentage of Theoretically Available Annual Sunlight (“TAAS”) on a park with no adjacent structures present. To date, ACL standards have been established for fourteen (14) downtown parks. An ACL standard has not been adopted for Patricia’s Green, Koshland Park or Page and Laguna Mini-Park.

Shadow Diagrams

Using a computer program that accounts for building heights and topography, the consultant has prepared shadow diagrams for the open spaces that would be affected by the proposed project. Fog, rain, overcast days, and shadows from trees, existing or proposed, are not taken into account when illustrating existing sources of shadow in these diagrams (notwithstanding that existing shadow from trees may be relevant to how visitor use park facilities). Shadow diagrams are “snapshots” taken at a particular representative time of day and day of the year. They illustrate the extent and location of shadows cast by existing buildings, net new shadow from a proposed building, and areas of sunlight on the subject open space. A “sweep” is a series of shadow diagrams from a particular day that demonstrates how shadows move across a specific space within a certain timeframe. Shadow diagrams may also serve as the basis for the qualitative discussion of shadow impacts, because they graphically represent where new shadow may affect open spaces.

Shadow Impact on Privately Owned, Privately Accessible Open Spaces

Privately owned, privately accessible open spaces (i.e., not accessible to the public) include back yards, courtyards, balconies, and roof decks of nearby residential buildings. The relevant CEQA significance criterion for shadow impacts is presented above on p. 4.E.10. A project would be considered to have a significant impact related to the topic of shadow if the project were to “create new shadow in a manner that substantially affects outdoor recreation facilities or other *public* areas” (emphasis added). Privately owned, privately accessible open spaces are not considered public areas, and as discussed above, no POPOs are affected by any projected project shadow. Shadow on private open spaces and private property, in general, is a common and expected occurrence in a densely populated city such as San Francisco. The project’s shadow on these spaces is not considered a significant effect on the environment for the purposes of CEQA.

For these reasons, no discussion of the proposed project’s shadow impacts on privately owned, privately accessible open spaces is required under CEQA in this EIR. However, the decision-

⁷ It is not necessary to sample the other half of the year (from the winter solstice to the summer solstice), because shadow behaves symmetrically at the solstices, and yields the same values in reverse order.

makers may consider special concerns related to shadow, independent of the environmental review process under CEQA, as part of the decision to approve, modify, or disapprove the proposed project.

PROJECT FEATURES

The proposed project includes demolition of two existing structures on the building site (the three-story building at 1500 Market Street and the four-story building at 1540 Market Street) and construction of a new residential building comprised of two volumetric components: a 12-story, 120-foot-tall podium element occupying the western portion of the building site, and a 40-story high-rise tower (400 feet tall, plus 20-foot-tall parapet) and may cast shadow on parks, recreational facilities, and publicly accessible spaces in the vicinity of the site. The proposed project would feature a slender tower design that is intended to comply with Planning Code Section 147. The proposed project also includes construction of pedestrian streetscape improvements to adjacent sidewalks and streets, including construction of a proposed new public open space (Oak Plaza) within the adjacent Oak Street right-of-way north of the proposed new building.

The proposed project includes a variant to the circulation and site plan at ground level as described in **Chapter 2, Project Description**, on p. 2.30. The proposed building position, height, and bulk/massing of the variant would be the same as that of the proposed project. Therefore, shadow impacts of the variant would be identical to those of the proposed project. No separate analysis of the project variant is necessary under the topic of Shadow.

IMPACT EVALUATION

Impact S-1: The proposed project or variant would not create new shadow on public parks in a manner that substantially affects outdoor recreation facilities or other public areas. (*Less than Significant*)

Patricia's Green

Patricia's Green is about 18,736 sq. ft. in area, and has an annual available sunlight of 69,722,662 square-foot-hours (sfh).⁸ As shown in **Table 4.E.1: Patricia's Green Shadow Summary, Existing-plus-Project**, existing shadow coverage of Patricia's Green is 14,779,907 sfh, which comprises 21.20 percent of the total annual available sunlight on Patricia's Green. The proposed project would add 136,972 sfh of net new shadow over the course of a year, comprising 0.20

⁸ Based on its latitude, San Francisco receives about 3,721.3 hours of sunlight on an annual basis. The annual available sunlight on a park is determined by multiplying the square footage of the park by the number of hours of sunlight on an annual basis (about 3,721.3).

percent of the total theoretical sunlight on Patricia’s Green. Existing shadow and project shadow would total 14,916,880 sfh, comprising 21.40 percent of the park’s total annual available sunlight.

Table 4.E.1: Patricia’s Green Shadow Summary, Existing-plus-Project

Shadow Scenarios	Shadow (sfh)	Percent of Available Sunlight
Existing Setting Baseline	14,779,907	21.2%
Proposed Project	136,972	0.2%
Total Shadow	14,916,880	21.4%

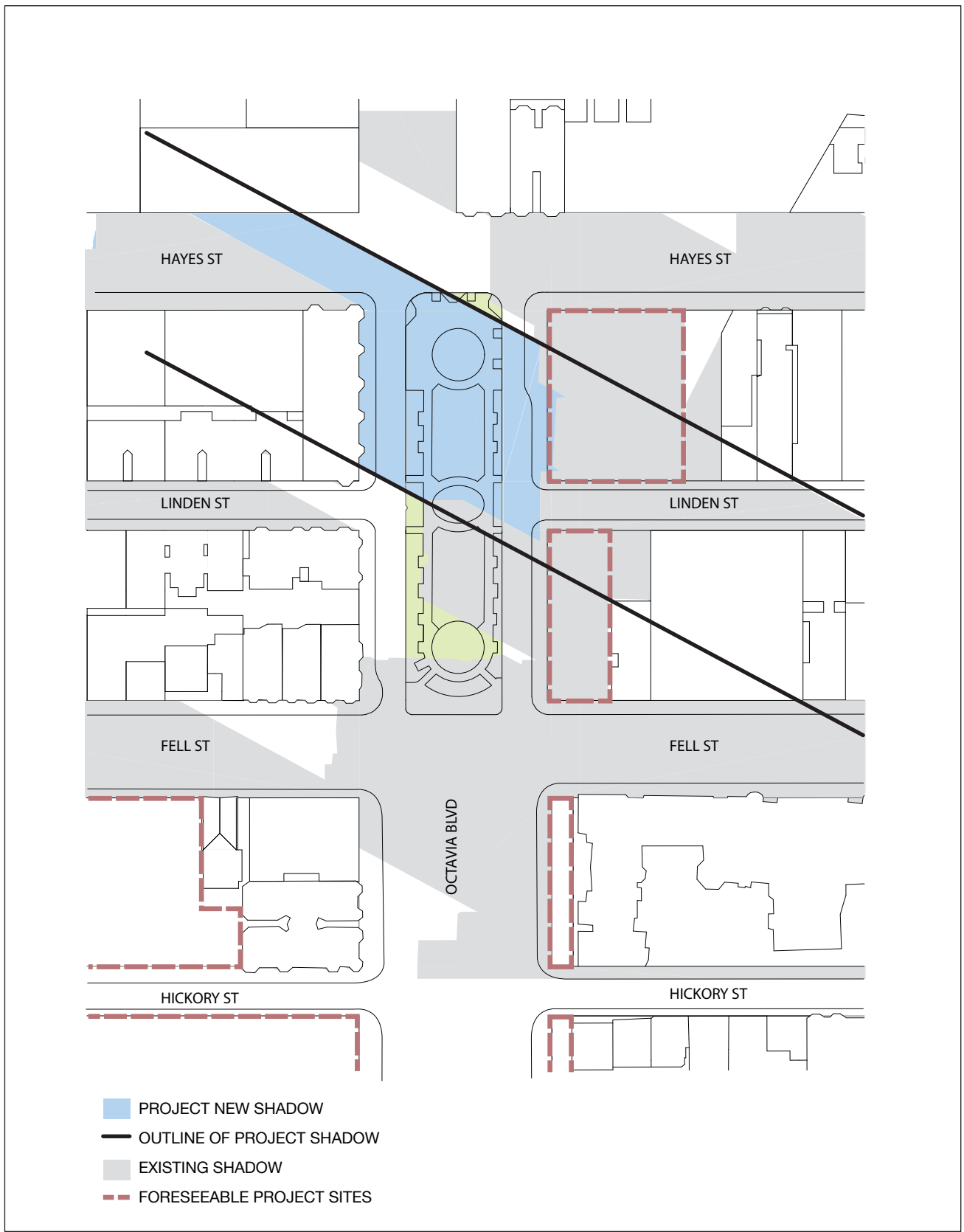
Note: sfh – square foot hours
Source: ESA 2016

For most of the year, the project shadow would not reach Patricia’s Green at any time of the day. Project shadow would reach the southern end of the park in the early mornings (beginning around 8:15 AM) during two six-week periods, beginning around September 20th around the fall equinox (and beginning on March 3rd around the corresponding period around the spring equinox⁹) and sweep northward across the park within 45 minutes. Shadow would move entirely off of the park by 9:00 AM. During this period, project shadow on the park would generally last approximately 15 to 30 minutes a day. Over the next six weeks, the proposed project’s shadow would begin the day incrementally further north than it had the day before.

During this 4-week period, shadow from the proposed project would reach its maximum area of coverage at 8:30 AM on October 11 when it would cover an area of 9,183 sq. ft. in the central and northern portions of the park (see **Figure 4.E.3: Maximum Extent of New Project Shadow on Patricia’s Green, 8:30 AM on October 11 / March 2**). At this time, shadow from existing buildings would cover 6,660 sq. ft., comprising 36 percent of the park’s area. Net new project shadow would cover an additional 49 percent of the park’s area at this time, leaving 15 percent of the park in sunlight at that time.

Project shadow on the park would decrease in size and duration with each successive day and would end around October 25, when project shadow would begin the day at the northern edge of the park and sweep northward away from the park.

⁹ The sun’s position in the sky is symmetrical throughout the entire solar year. One half of the solar year begins on June 21 and ends on December 20, and the other half of the solar year begins on December 21 and ends on June 20. Each day in the first half of the solar year has an equivalent solar date in the second half of the solar year, with the spring and autumn equinoxes (March 20 or 21 and September 22 or 23, respectively) being equivalent solar dates. For this reason, during the spring equinox, this pattern would be reversed in sequence.



Source: ESA (2016)

ONE OAK PROJECT

FIGURE 4.E.3: MAXIMUM EXTENT OF NEW PROJECT SHADOW ON PATRICIA'S GREEN, 8:30 AM ON OCTOBER 11 / MARCH 2

During the last week in September and the first and second weeks in October, beginning around 8:15 AM, project shadow would reach parts of the children's play area that are currently in sunlight and would last up to 30 minutes. After which period shadow would begin the day farther north of the children's play area in the grass and sculpture areas, and would not affect the children's playground structure.

By November 1, project shadow would begin the day entirely outside of the park to its north and would not enter the park as shadow would sweep northward away from the park later that morning. With each successive day, project shadow would begin the day farther north than it did the previous day, until the winter solstice on December 21. At that point, the pattern described above would be reversed, and project shadow would begin the day incrementally farther south than it did the previous day. Around February 9 (the solar equivalent day corresponding to November 1), project shadow would begin the day just north of the park before sweeping northward away from the park.

Leading up to the spring equinox, the sequence described above would occur week-by-week in reverse sequence, over the four-week interval from February 28th through March 21st. The week of February 28th, project shadow would first begin on the central part of the park and then begin farther south each day, increasing in area each day. During the next three weeks, project shadow would have shifted far enough south to cast some shadow on the children's play area. Finally, the last shadow on the park would occur on March 21st when the shadow would be the same as described for September 20th, above. Project shadow would no longer reach the park from March 28th and June 21st.

Due to the distance between Patricia's Green and the proposed new construction on the project site, small changes in the sun's position in the sky over the course of a day (in both its elevation above the horizon and in its apparent southward motion in the sky) would result in rapid changes in the movement of project shadow on the ground. For this reason, project shadow on the park is limited in duration, beginning at the start of the day and lasting for no more than 45 minutes over a six-week period around the spring and fall equinoxes.

As part of field observations undertaken in a 45-minute visit to the park between 7:30 and 8:15 AM in the month of August, eleven people were observed within the park.¹⁰ Of those, seven were walking their dogs on the grass, three were pedestrians crossing the park on their way elsewhere, and one was a City worker painting a table. No person was engaged in passive use of the park (i.e., sitting or standing) and no children were seen. Several observations from subsequent short

¹⁰ ESA, Technical Memorandum: *Evaluation of Potential Proposition K Shadows for the Proposed One Oak Street High-Rise Project, San Francisco, CA*, October 2016.

visits indicate substantial late morning and mid-day use of the park, with this use extending well into the late afternoon.

On a similar later visit, between 10:30 and 11:00 AM, an interval that is three hours later in the day than the first visit, about 12 park users were observed. In contrast to uses of the park observed earlier in the morning (mostly pedestrians in transit), later morning uses of the park had become increasingly passive uses. Approximately half of the observed park users were sitting and standing in the north plaza and several more were in the sculpture area, while one was sitting near the children's play area. Several pedestrians crossed the park on their way elsewhere. No person was sitting on the newly planted grass and no children were seen. A larger number of pedestrians were seen walking along the Hayes, Fell, and Octavia Street sidewalks, but they were not included in the user counts.

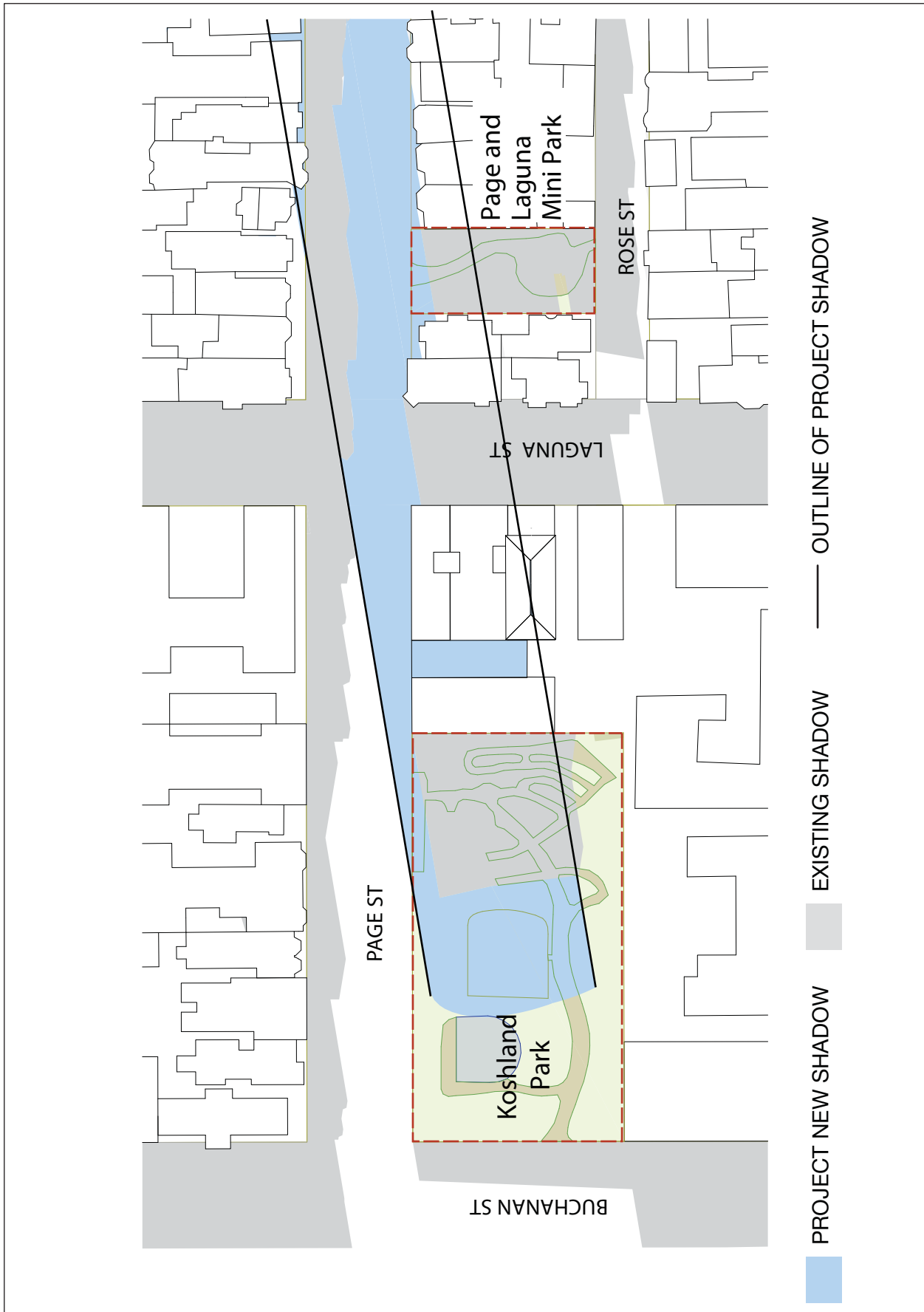
Conclusion

As discussed above, based on field observations undertaken as part of the Shadow Technical Memorandum, during the early morning around the fall and spring equinoxes when the proposed project would shade Patricia's Green, the population of the park is relatively sparse, and the users of the park observed at that time were not engaged in activities that are dependent on sunlight, such as active play in the children's area. Rather, they were engaged in activities such as dog walking or crossing the park. For these reasons, project shadow on Patricia's Green would not substantially affect outdoor recreation facilities. Therefore, the impact is less than significant, and no mitigation measures are necessary.

Page and Laguna Mini Park and Koshland Park

Shadow from the proposed project would also reach Page and Laguna Mini Park and Koshland Park, both of which are subject to Section 295. The net new project shadow from the proposed project that would reach these parks would be limited in area and time of occurrence during the day and year. For the purpose of this EIR analysis under CEQA, the full extent and duration of that new shadow can therefore be adequately described by the times and dates of occurrence and an image and the area of the largest shadow. A full quantitative evaluation of year-round shadow, including the calculation of the existing shadow baseline (such as that performed for Patricia's Green), would be part of a separate future supplemental analysis prepared for the Recreation and Park Commission and Planning Commission to evaluate conformity with the quantitative criteria of Section 295.

New shadow from the proposed high-rise building at One Oak Street also would reach Page and Laguna Mini Park, and Koshland Park during the times of day regulated by Proposition K (see **Figure 4.E.4: Maximum Extent of New Project Shadow on Page and Laguna Mini Park and on Koshland Park, 7:00 AM on June 27**).



Source: ESA (2016)

ONE OAK PROJECT

2009.0159E

FIGURE 4.E.4: MAXIMUM EXTENT OF NEW PROJECT SHADOW ON PAGE AND LAGUNA MINI PARK AND ON KOSHKAND PARK, 7:00 AM ON JUNE 27

Because project shadow would be limited on both Page and Laguna Mini Park and Koshland Park, the time and date of the most extensive shadow coverage is used to illustrate the shadow effects for purposes of CEQA analysis.¹¹

Page and Laguna Mini Park

Page and Laguna Mini Park lies approximately 1,550 feet to the west and south of the project site. The largest net new project shadow would occur at 7:00 AM (less than 10 minutes after the first hour after sunrise) one week after the summer solstice. At this time, Page and Laguna Mini Park would be almost entirely in shadow from existing adjacent buildings to the east of the park, except for a triangular area at the northern (front) end of the park, occupied by plantings and a pathway adjacent to the Page Street sidewalk, and another smaller planted area within the southwestern portion of the park. Persons seeking a sunlight open space would generally not be using the park at this time. Net new project shadow would entirely cover the sunlit triangular area at the northern end of the park (645 sq. ft.). At this time shadow from the project would be approximately 9.8 percent of the park area. By 7:15 AM, the project shadow would rapidly recede westward while moving northward, entirely off of the park, and would leave the park area along Page Street in sunlight. Existing shadow from adjacent buildings to the east of the park would continue to cover most of the rest of the park. New shadow from the proposed project would recur on the park for approximately 15 minutes on successive days for up to four weeks before and four weeks after the summer solstice. Shadow from the proposed project would not reach Page and Laguna Mini Park at other times of year. As with early morning park uses observed for Patricia's Green, early morning use of Page and Laguna Mini Park is assumed to be sparse, and typical early morning park uses would be exercise and dog walking, uses that are not particularly sensitive to shadow.

Koshland Park

Koshland Park is approximately 1,900 feet to the west and south of the project site. As with Page and Laguna Mini Park, the largest net new project shadow would occur at 7:00 AM one week after the summer solstice. At this time Koshland Park would be mostly in sunlight, except for an area of existing shadow in the eastern end of the park (9,838 sq. ft.) that would be shadowed by adjacent buildings to the east of the park. Net new project shadow (9,448 sq. ft.) would cover the central children's play area sunlit triangular area at the northern end of the park. At this time the project's net new shadow would be approximately 26.1 percent of the park area. By 7:15 AM, project shadow would rapidly recede westward while moving northward, entirely off of the park, and would leave the central children's play area in sunlight. Existing shadow from adjacent

¹¹ A full quantitative evaluation of year-round shadow, including the calculation of the existing shadow baseline (such as that performed for Patricia's Green), will be part of a future supplemental analysis for the purposes of project entitlements review under Planning Section 295.

buildings to the east of the park would continue to cover the eastern end of the park. New shadow would recur on the park for approximately 15 minutes on successive days for up to four weeks before and four weeks after the summer solstice. Shadow from the proposed project would not reach Koshland Park at other times of year. As with early morning park uses observed for Patricia's Green, early morning use of Koshland Park is assumed to be sparse, and typical early morning park uses would be exercise and dog walking, uses that are not particularly sensitive to shadow.

Conclusion

Due to the distances of Page and Laguna Mini Park and Koshland Park from the proposed new construction on the project site, small changes in the sun's position in the sky over the course of a day (in both its elevation above the horizon and in its apparent southward motion in the sky) would result in rapid changes in the movement of project shadow on the ground. Net new project shadow would begin in the early morning at 7:00 AM, and would be brief in duration, lasting 15 minutes, and would occur at a time of day when park usage would typically be low. For these reasons, the proposed project or variant would have a less-than-significant impact on Page and Laguna Mini Park and Koshland Park. No mitigation measures are necessary.

Impact S-2: The proposed project or variant would not substantially shade outdoor recreation facilities or other public areas, such as streets and sidewalks that are not under the jurisdiction of the Recreation and Park Commission. (*Less than Significant*)

Streets and Sidewalks

The proposed project would cast new shadow on nearby streets and sidewalks throughout the year to the extent that these areas are not already shaded by existing buildings that line the streets. (See **Figure 4.E.1** on p. 4.E.2.)

During the early- and mid-morning hours around the winter solstice, the proposed project would shade segments of streets and sidewalks to the north and northwest of the project site, particularly Oak Street and Franklin Street west of the project site. During the early- and mid-morning hours around the fall and spring equinoxes, the proposed project would shade segments of streets and sidewalks to the west of the project site, particularly Oak Street and Franklin Street. During the early- and mid-morning hours around the summer solstice when the sun is farthest north, the proposed project would shade segments of streets and sidewalks to the southwest of the project site, particularly Market Street and Page Street.

Around midday, throughout the year, the proposed project would shade segments of streets and sidewalks north of the project site, particularly Oak Street.

During the mid- and late-afternoon hours, around the winter solstice, the proposed project would shade segments of streets and sidewalks to the northeast of the project site, particularly Market Street and Van Ness Avenue. During the mid- and late-afternoon hours around the fall and spring equinoxes, the proposed project would shade segments of streets and sidewalks to the east of the project site, particularly Market Street and Van Ness Avenue. During the mid- and late-afternoon hours around the summer solstice, the proposed project would shade segments of streets and sidewalks to the southeast of the project site, particularly Market Street.

Proposed project shadow would not affect the use and enjoyment of sidewalks in the area, which function primarily as public pathways for pedestrians. Many of the sidewalks in the project vicinity are already shadowed for portions of the day by densely developed multi-story buildings. Net new project shadow would be transitory in nature and would not substantially affect the use of the sidewalks. Overall, the proposed project would not increase the amount of shadow on the sidewalks above levels that are common and generally expected in densely developed urban environments. For these reasons, the proposed project would have a less-than-significant shadow impact on sidewalks in the project vicinity, and no mitigation measures are necessary.

Proposed Oak Plaza Open Space

The proposed project includes construction of a proposed new public open space (Oak Plaza), within the Oak Street right-of-way to the north of the proposed building. In addition, privately owned Lot 1, and the northern portions of Lots 2-4 would be developed as a privately owned public open space extension of the proposed Oak Plaza. This space is not yet programmed for this use, so consideration has been given above to shadow on surrounding streets and sidewalks. The proposed project's shadow would have no impact on an existing public open space. The discussion below is provided for informational purposes.

Morning sunlight would reach from the east into Oak Plaza throughout the year along and across the broad and open Market Street right-of-way. During the midday in the winter, and later in the spring, summer, and fall (during Pacific Daylight Time), the portion of the street and sidewalk that would become the proposed Oak Plaza directly north of the proposed building would be covered by project shadow. In the afternoon, sunlight that is not already obstructed by existing buildings to the west of the project site would reach from the west into Oak Plaza in the spring, summer, and fall as project shadow would move eastward through the afternoon.

The proposed wind canopies within Oak Plaza would create a permanent source of shade over the proposed Oak Plaza. The proposed canopies would be lattice-like (50 to 75 percent open) and held on vertical supports 20-30 feet from the ground. The height and porosity of the proposed canopies would allow some of the sunlight to reach the ground surface below. The purpose of the proposed wind canopies is to diffuse winds and thereby increase the safety and comfort of persons within the proposed Oak Plaza. The canopies' shadow impact on user comfort within the

proposed plaza would be offset by enhancement of user comfort resulting from the wind buffering effects of the proposed canopies.

CUMULATIVE IMPACT EVALUATION

Impact C-S-1: The proposed project or variant in combination with past, present, and reasonably foreseeable future projects in the project vicinity would create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas. The proposed project would not make a cumulatively considerable contribution to a significant cumulative shadow impact. (*Less than Significant*)

Figure 4.E.5: Foreseeable Projects shows the location of the Freeway Parcels projects and foreseeable 400-foot-tall projects in the vicinity of the project site. Shadow from foreseeable development of the Freeway Parcels would shade Patricia’s Green but would not reach Koshland Park or Page and Laguna Mini Park at any time. Shadow from foreseeable 400-foot-tall projects in the vicinity of the project site would reach Patricia’s Green, Koshland Park, and Page and Laguna Mini Park. As discussed below, these foreseeable projects were considered for their potential to create new shadow that would combine with project shadow on Patricia’s Green, Koshland Park, and Page and Laguna Mini Park.

Patricia’s Green

Freeway Parcels

With voter approval of Proposition E in 1998, the Central Freeway north of Market Street was removed and Octavia Street widened into a surface boulevard. Removal of the freeway structures provided more than seven acres of vacant land for infill development. The *Market and Octavia Neighborhood Plan EIR* analyzed the shadow impact of anticipated development of Freeway Parcels K, L, M, and O to a height of 55 feet at a project level under the plan. As shown on **Figure 4.E.5**, these parcels are located to the east and south of Patricia’s Green. They are set back by the roadway and sidewalk running along the east side of the park. The 55-foot height limit and the close proximity to the park are foreseeable conditions that would create morning shadow on Patricia’s Green.

That EIR found that build-out of these parcels would shade Patricia’s Green (then called “Hayes Green”) completely in the mornings and late afternoons during the spring and fall, with shading



Source: ESA (2016)

ONE OAK PROJECT

2009.0159E

FIGURE 4.E.5: FORESEEABLE PROJECTS

increasing during the early afternoons in the winter. During the summer the park would be fully exposed to sunlight with scattered pockets of continuous sunlight throughout the day.¹² More specifically, that EIR determined that development of Freeway Parcels L and K (along the east side of the park) could cause morning shadows on Patricia's Green in winter (8:00 to 10:20 AM), spring (7:30 to 10:45 AM), summer (7:45 to 10:00 AM), and fall (7:30 to 10:45 AM). Parcel M (southeast of the park) would shade the southeast corner of the park in early morning winter hours (8:00 to 9:30 AM) and Parcel O (southwest of the park) would cast a shadow on the southern portion of the park in the afternoon (2:00 to 4:00 PM) in winter.

The Shadow Technical Memorandum has modeled and quantified potential shadow from the Freeway Parcel development in order to assess the contribution of the proposed project to cumulative development to understand the amount shadow that would be attributable to the proposed project relative to that of the Freeway Parcels. Because detailed plans for future projects on the Central Freeway parcels are not available, they are conservatively represented by simplified bulk models of lot-line buildings at specified maximum heights for each of five of the Central Freeway parcels (Parcels K, L, M, N, and O). Buildings on these parcels within 50-X Districts are modeled at heights of 59 feet above grade (including an additional five feet in height allowable if used to create more generous ground-floor commercial ceiling heights under Policy 1.2.2, plus four-foot parapets which are exempt from height controls).

Table 4.E.2: Patricia's Green Shadow Summary, Existing-plus-Project-plus-Freeway Parcel Projects, quantifies the relative contribution of existing shadow, project shadow, and foreseeable Freeway Parcel shadow to total park shadow. As shown in the table, existing shadow coverage of the park is 14,779,907 sfh, which comprises 21.20 percent of the total annual available sunlight on Patricia's Green. The proposed project would add 136,972 sfh of new shadow over the course of a year, comprising 0.20 percent of the total theoretical sunlight on Patricia's Green. Shadow from the Freeway Parcels development would cause new shadow on the park that would total 7,530,207 sfh of additional new shadow, comprising 10.80 percent of the total annual available sunlight on Patricia's Green.

¹² San Francisco Planning Department, *Market and Octavia Neighborhood Plan Final EIR*, Volume II, September 2007. p. 4-135. San Francisco Planning Department. <http://www.sf-planning.org/index.aspx?page=1714>.

Table 4.E.2: Patricia’s Green Shadow Summary, Existing-plus-Project-plus-Freeway Parcel Projects

Shadow Scenarios	Shadow (sfh)	Percent of Available Sunlight
Existing Shadow	14,779,907	21.2%
Proposed Project	136,972	0.2%
Freeway Parcel Projects	7,530.207	10.8 %
Total Shadow	22,447,086	32.2%

Note: sfh – square foot hours

Source: ESA

Total shadow on Patricia’s Green, including existing, proposed project, and Freeway Parcel projects, would amount to 22,447,086 sfh, comprising 32.20 percent of the total available sunlight on Patricia’s Green. Due to the close proximity of the Freeway Parcels to Patricia’s Green (in particular, Parcels K and L immediately to the east of the park), substantial shadow from these projects would remain on the park through mid-morning throughout the year, to be replaced by afternoon shade from existing buildings and from development of Freeway Parcel O southwest of the park.

Foreseeable 400-Foot-Tall Projects in the Vicinity of the Proposed Project

The *Market and Octavia Area Plan* established height districts for parcels in the immediate vicinity of the Market Street and Van Ness Avenue intersection with building height limits of 400 feet. A building 400 feet in height on these parcels would be tall enough to cast a shadow that could reach Patricia’s Green between the hours of one hour after sunrise and one hour before sunset. As with the proposed project, shadow from a 400-foot tall building at this intersection could reach the park only in the early morning. At certain times of the year, as with the proposed project, shadow from a 400-foot-tall building in the vicinity of the project site could cast a shadow up to a half mile and reach Patricia’s Green one hour after sunrise. Some shadow from these buildings that would otherwise reach Patricia’s Green would be intercepted by existing lower intervening buildings. There are three such buildings currently under review or reasonably likely to be in the foreseeable future. The locations of these project sites are shown on

Figure 4.E.5 on p. 4.E.23.

- **30 Van Ness Avenue** is a design concept. The building modeled is assumed to have one 400-foot-tall tower that would be located at a distance of approximately 1,450 feet from the southeast corner of Patricia’s Green. At that distance, shadow from the 400-foot tower would reach beyond the park. Depending upon the shape and placement of the tower on the site, nearby buildings that include high-rise towers, such as 1455 Market Street and 10th and Market Street, could block a substantial fraction of the sunlight that would cross the 30 Van Ness Avenue site and be directed toward the park. If not intercepted by existing buildings closer to the Patricia’s Green, some shadow from the

30 Van Ness Avenue project may reach the park within the first hour after one hour after sunrise, for less than 15 minutes a day over several weeks in September. The shadows from the 30 Van Ness Avenue project might reach Patricia's Green on the same dates as the One Oak project shadows, although the two shadows would fall at different times of day and on different parts of the park.

- **10 South Van Ness Avenue** is a conceptual design. The project proposes two 400-foot-tall towers that could be located at distances of approximately 1,400 feet to 1,600 feet from the southeast corner of Patricia's Green. At those distances, shadow from both 400-foot towers would reach well onto the park. The shadow from the towers could reach the park within the first hour after one hour after sunrise, for less than an hour a day over eight or more weeks in October and November. The shadows from the 10 South Van Ness project could reach Patricia's Green on the same October dates and times as the One Oak project shadows, although the two shadows would fall on different parts of the park. Given the design uncertainties, a precise single estimate of shadow coverage is not possible. The shadow coverage of the current design likely could range into the hundreds of thousands of square foot hours, especially because there would be two towers casting shadow. However, project shadow coverage could vary widely in response to modest changes in the height, orientation, location, or shapes of the project towers.
- **1500 Mission Street** would have one high-rise tower with a height of 250 feet and one with a height of 400 feet. The project would be approximately 1,800 feet from the southeast corner of Patricia's Green. At that distance, shadow from the 250-foot tower would not reach the park, but shadow from the 400-foot tower would, for much less than a half hour a day during the first hour after one hour after sunrise, over an interval of four weeks from late October through mid-November. Shadows from the 1500 Mission Street project could reach Patricia's Green on the same date in October, but not at the same time, as the One Oak project shadows.

For each of the three 400-foot-tall projects above, digital models were obtained of the towers and their potential to reach the park at any of the defined sun sampling times. These were then tested in the context of existing intervening buildings that could block new project shadow from reaching the building, or from reaching the park. However, as these projects are still in conceptual stages of design, their shadow impacts were not quantified. For these reasons, the estimated values of shadow coverage are not incorporated into the spreadsheets and the summary information. Rather, the potential shadow coverage is discussed qualitatively for each of these projects that could produce new shadow on the park. Since these projects were modeled as potential massing volumes without design refinements, they represent a worst-case scenario for cumulative shadow.

Conclusion

As discussed above on pp. 4.E.16-4.E.17, during field observations undertaken as part of the Shadow Technical Memorandum in the early morning times when the proposed project would shade Patricia's Green, the population of the park was relatively sparse. In addition, the park uses observed at that time (dogwalking and pedestrians passing through the park) are less dependent on access to sunlight than other park activities (such as sitting on benches or grass, sunbathing,

using children's play areas/structures). By 10:00 AM around the winter solstice and spring and fall equinoxes, and by 9:00 AM around the summer solstice, morning shadow on Patricia's Green would retreat to the eastern end of the park and ample opportunities for sunlight would be available elsewhere within the park for park users who prefer sunlight. By 11:00 AM around the winter solstice and spring and fall equinoxes, and by 10:00 AM around the summer solstice, morning shadow on Patricia's Green would have retreated entirely off the park. It would remain in full sun until mid-afternoon in fall and winter and until late afternoon in summer and spring. In the early mornings around the equinoxes the proposed project would contribute to the shadow on the park caused by Freeway Parcel development, the latter taking place in the early- to mid-mornings and again in the mid-to late afternoons throughout the year. By mid-day throughout the year the park would be mostly or entirely in sunlight. For this reason, peak noontime and afternoon use of the park would not be affected by shadow from the proposed project and the Freeway Parcel projects.

However, given the relatively large increase in shadow on Patricia's Green resulting from foreseeable cumulative development (in particular, Freeway Parcels K and L, located directly east of Patricia's Green), the cumulative increase in shadow on Patricia's Green resulting from past, present, and reasonably foreseeable projects could adversely affect the use of Patricia's Green in the morning hours throughout the year. This would represent a significant adverse cumulative change, compared to existing conditions. This impact was disclosed in the *Market & Octavia Plan EIR*.

CEQA Guidelines Section 15130 states,

An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065 (a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

Under CEQA Guidelines Section 15065(a)(3) a project's incremental effect is cumulatively considerable when,

The project has possible environmental effects that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

However, the proposed project's incremental shadow effect on Patricia's Green, when viewed in the context of past projects, current projects, and probable future projects, would not be cumulatively considerable. As shown above in **Table 4.E.2**, shadow from the proposed project would comprise 0.20 percent of the annual available sunlight resource of the park. Together,

shadow from existing projects (14,779,907 gsf), the proposed project (136,972 gsf), and the Freeway Parcel projects (7,530,207 gsf) would total 22,447,086 sfh. As a portion of the total shadow on Patricia's Green, the proposed project's contribution to this total would comprise 0.61 percent. The incremental effect of the proposed project would not be cumulatively considerable in relation to total shadow resulting from past, present, and foreseeable projects.

Koshland Park and Page and Laguna Mini Park

Freeway Parcels

Shadow from the Freeway Parcel projects would not reach Page and Laguna Mini Park or Koshland Park at any time of the day or year. As such, shadow from the proposed project on these parks would not combine with other foreseeable projects.

Foreseeable 400-Foot-Tall Projects

Reasonably foreseeable development of 400-foot-tall buildings at or near the intersection of Van Ness Avenue and Market Street, like the proposed project, could add shadow to Koshland Park and Page and Laguna Mini Park, but only for limited amounts of time in the mornings, similar to the One Oak Street project shadows described above. These high-rise projects are 30 Van Ness Avenue, 10 South Van Ness Avenue, and 1500 Mission Street. The shadow effects are described below:

- **30 Van Ness Avenue** is a conceptual design. The building would cast shadow onto the northeastern corner of Koshland Park at 6:48 AM, one hour after sunrise, on the summer solstice; however, that shadow would leave the park by 7:00 AM. The early morning shadow pattern would occur on the park for several weeks. The resulting shadow coverage of Koshland Park might range up to 20,000 sfh. This shadow on Koshland Park would occur at some of the same times and dates as the shadow from the One Oak project. However, shadow from the One Oak project would occur on the southeastern corner of the Park at 6:48 AM. The shadows from the One Oak and 30 Van Ness Avenue projects would remain separated as they move northward across the park and shorten, at the same time. Shadow from the 30 Van Ness Avenue project would leave the park before the shadow from the One Oak project. Shadow from the 30 Van Ness Avenue project would not reach far enough south to touch Page and Laguna Mini Park.
- **10 South Van Ness Avenue** would cast shadow onto Page Street near the northeastern corner of Koshland Park in the early morning at the end of August; the shadow also would occur in the same vicinity for several weeks before and after that date. Although no example of the building shadow reaching onto the park was found, the potential would exist, especially because there would be two towers to cast shadow. Shadow from the 10 South Van Ness Avenue project would reach well beyond Page and Laguna Mini Park during the same interval of weeks and same time of day. At that time, Page and Laguna Mini Park is almost entirely shadowed, but potential exists for small sunlit areas of the park to be shadowed by the project.

- **1500 Mission Street** would have one high-rise tower with a height of 250 feet and one with a height of 400 feet. The 1500 Mission Street project would cast shadow in the direction of both Koshland Park and Page and Laguna Mini Park, but shadow from the project would not reach either property.

As with shadows from the proposed project, shadows from these foreseeable projects would reach Koshland Park and Page and Laguna Mini Park in the early morning hours when the parks are already largely in shadow from existing buildings. As such, park usage at these times is expected to be sparse and characterized by uses that do not rely on access to sunlight. For these reasons, the proposed project would not contribute to a significant cumulative shadow impact resulting from existing and foreseeable projects.

Sidewalks

Cumulative shadow impacts on sidewalks in the area would be considered less-than-significant for the same reasons that project shadow impacts would be considered less than significant. As discussed under **Impact S-2**, the proposed project would create new shadow on sidewalks in the project vicinity at certain times of day throughout the year. The sidewalks in the project vicinity are already shadowed for much of the day by densely developed, multi-story buildings. Although implementation of the proposed project and the reasonably foreseeable future projects would add net new shadow to the sidewalks in the project vicinity, these shadows would be transitory in nature, would not substantially affect the use of the sidewalks, and would not increase shadows above levels that are common and generally expected in a densely developed urban environment. For these reasons, the proposed project would not contribute considerably to a significant impact related to shadow.

Conclusion

For these reasons, the proposed project or its variant, in combination with past, present, and reasonably foreseeable future projects in the project vicinity, would not make a cumulatively considerable contribution to a significant cumulative shadow impact. No mitigation measures are necessary.

5. OTHER CEQA CONSIDERATIONS

A. GROWTH-INDUCING IMPACTS

As required by Section 15126.2(d) of the CEQA Guidelines, an EIR must consider the ways in which the proposed project could directly or indirectly foster economic or population growth, or the construction of additional housing. Growth-inducing impacts can result from the elimination of obstacles to growth; through increased stimulation of economic activity that would, in turn, generate increased employment or demand for housing and public services; or as a result of policies or measures which do not effectively minimize premature or unplanned growth. Examples of projects likely to have substantial or adverse growth-inducing effects include expansion of infrastructure systems beyond what is needed to serve current demand in the project vicinity, and development of new residential uses in areas that are currently sparsely developed or undeveloped. The following discussion considers whether implementation of the proposed project could potentially affect growth elsewhere in San Francisco and in the region. The proposed project also includes a variant that the project sponsor may choose to implement – the Muni Station Elevator and Emergency Access Variant. The conclusions in this chapter for the proposed project and project variant are the same.

The proposed project would intensify development on the project site by introducing new residential, commercial, and open space uses. Population growth within the project site would be a direct impact of the proposed project. Among the basic objectives of the proposed project is to increase the City's supply of housing in an area designated for higher density due to its proximity to downtown and accessibility to local and regional transit, and to create a welcoming public plaza that calms traffic and provides shelter from winds. If the proposed project were implemented, the addition of 310 residential units would increase the population on the project site by approximately 701 residents.¹ Although this increase would represent approximately 0.25 percent of citywide population growth between 2010 and 2040, population growth attributable to the proposed project would be consistent with City and regional population projections. The 310 new residential units would increase the City's overall housing stock, but implementation of the proposed project would not represent significant growth in housing in the context of the City as a whole. The maximum of 310 housing units proposed in the project would

¹ Based on an average San Francisco household size of 2.26 persons. See the Initial Study on pp. 52-53 (Appendix A to this EIR) for more detail. Note however, that since publication of the Initial Study, the proposed project has been revised to reduce the number of units from 320 to the current 310 units.

represent a negligible percentage (0.044 percent) of the projected household growth in the region (700,067 households) between 2010 and 2040.²

The proposed project would decrease net employment at the site by four jobs (11 new employees associated with the management and maintenance of the proposed One Oak Street building, and 30 new employees associated with the new retail use). Because the total number of employees at the project site would decrease, the proposed project would not cause growth in employment that would result in housing demand in the City or region.

Approval of the proposed shift of the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836 would not cause greater residential density on the project site than would otherwise be permitted. The shift of the 120/400-R-2 Height and Bulk District would not expand the 120/400-R-2 Height and Bulk District limit, but would adjust the limit to accommodate the proposed open space in the easternmost portion of the site. Approval of the proposed project provides no basis for assuming that there would be an increase in future development in the project vicinity beyond that already anticipated in the City's growth projections and accounted for in the various analyses in this document.

The project site is located in an urban area that is already served by the City's municipal infrastructure and public services as well as retail and other services for residential uses. No substantial expansion to municipal infrastructure or public services is included and none would be required to accommodate new development associated with the proposed project, either directly or indirectly. The proposed project would not result in development of new public services that would accommodate significant growth in the City or the region.

The proposed project would provide for high-density residential growth supported by existing community facilities, public services, transit service and infrastructure, and public utilities. To the extent that this growth would have been otherwise accommodated at other Bay Area locations, the proposed project would focus growth on an underused infill site near existing regional employment centers and existing and planned transit facilities, infrastructure, retail services, and cultural and recreational facilities.

The proposed project would contribute to meeting the Association of Bay Area Government's (ABAG's) regional housing objectives and would conform with ABAG's regional goals to focus growth and development by creating compact communities with a diversity of housing, jobs, activities, and services; increasing housing supply; and improving housing affordability by

² ABAG, Projections 2013, p. 19.

meeting the City's inclusionary affordable housing requirements in compliance with the City's Inclusionary Affordable Housing Program (Planning Code Section 415).^{3, 4}

As discussed in more detail in Section 4.B, Land Use and Land Use Planning, on pp. 4.B.6-4.B.7 and the Initial Study on pp. 54-56 under Impact C-PH-1 (see **Appendix A** to this EIR), population increases attributable to the implementation of the proposed project in combination with reasonably foreseeable projects in the vicinity that would develop new residential units and intensify business and employment activity would not contribute to a significant cumulative impact related to the direct or indirect inducement of substantial population growth. Based on the preceding discussion and analysis, the proposed project would not have a substantial growth-inducing impact, and no mitigation measures are necessary.

B. SIGNIFICANT UNAVOIDABLE IMPACTS

In accordance with Section 21067 of CEQA and with Section 15126(b) and Section 15126.2(b) of the CEQA Guidelines, the purpose of this section is to identify significant environmental impacts that could not be eliminated or reduced to less-than-significant levels by implementation of mitigation measures included in the proposed project or identified in **Chapter 4, Environmental Setting and Impacts**. This EIR finds that the proposed project would result in a significant unavoidable impact related to cumulative construction traffic. The findings of significance in this EIR are subject to final determination by the San Francisco Planning Commission as part of the certification process for this EIR. If necessary, this chapter will be revised in the Final EIR to reflect the findings of the Planning Commission.

C. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL IMPACTS

In accordance with Section 21100 (b)(2)(B) of CEQA, and Section 15126.2(c) of the CEQA Guidelines, an EIR must identify any significant irreversible environmental changes that could result from implementation of the proposed project. This may include current or future uses of non-renewable resources and secondary or growth-inducing impacts that commit future generations to similar uses. According to the CEQA Guidelines, irretrievable commitments of resources should be evaluated to ensure that such current consumption is justified. The CEQA Guidelines describe three distinct categories of significant irreversible changes: 1) changes in

³ Projects of five or more residential units are required to contribute to the creation of BMR housing, either through direct development of BMR residential units on the project site (equal to 12 percent of the project's overall residential units), within a separate building within 1 mile of the project site (equal to 20 percent of the project's overall residential units), or through an in-lieu payment to the Mayor's Office of Housing.

⁴ ABAG administers the FOCUS program, in partnerships with the Metropolitan Transportation Commission, the Bay Conservation and Development Commission, and the Bay Area Air Quality Management District. FOCUS is a regional development and conservation strategy that promotes more compact land use patterns in the Bay Area.

land use that would commit future generations, 2) irreversible changes from environmental actions, and 3) consumption of nonrenewable resources. Each of these categories is discussed below in relation to the proposed project.

CHANGES IN LAND USE THAT WOULD COMMIT FUTURE GENERATIONS

As described throughout this EIR, implementation of the proposed project would occur within an urbanized area and would entail the demolition of the existing three-story commercial building, surface parking lot, and four-story commercial office building on the project site, and the construction of a new 310-unit, 40-story, 400-foot-tall (420 feet tall including an 20-foot-tall parapet), 499,580-gsf residential building, including ground-floor commercial space and a three-level subsurface parking garage. The major change on the project site under the proposed project would be related to the construction of a new high-rise residential tower and the introduction of new (residential and commercial) uses on the project site. The project site is currently occupied and developed with commercial, office, and parking uses. Implementation of the proposed project would result in development intensification on the project site that would commit future generations living or working in San Francisco or visiting San Francisco to the environmental effects caused by the operation of the proposed new building for the duration of the life of the building. These environmental effects include an increase in residential population as discussed in this EIR and the Initial Study. Future generations could benefit from the addition of new open space in the form of a publicly accessible pedestrian plaza (Oak Plaza) within the Oak Street right-of-way. Future generations could eventually redevelop the project site and Oak Street right-of-way with other uses, if the proposed high-rise residential building with ground-floor commercial use were to no longer operate or were demolished pursuant to a subsequent development proposal. Therefore, the proposed project would not constitute a significant adverse effect on changes in land use that would commit future generations.

IRREVERSIBLE CHANGES FROM ENVIRONMENTAL ACTIONS

No significant irreversible environmental damage, such as an accidental spill or explosion of hazardous materials, is anticipated to occur with implementation of the proposed project. Compliance with federal, state, and local regulations related to residential and retail uses and the mitigation measures identified in the Initial Study, Section E, Hazards and Hazardous Materials, pp. 126-135 (see **Appendix A** to this EIR) would reduce the possibility that hazardous substances from the demolition, construction, and operation of the proposed project would cause significant and unavoidable environmental damage. The proposed project would have an estimated maximum depth of excavation for the basement garage levels and mat foundation of as much as 50 feet below the ground surface. Compliance with BART's Zone of Influence guidelines for construction would be required as discussed on NOP/IS p. 136. Generally, the site excavation for the proposed project would not substantially alter the topography of the project site.

No other irreversible permanent changes such as those that might result from construction of a large-scale mining project, hydroelectric dam, or other industrial project would result from development of the proposed project.

CONSUMPTION OF NONRENEWABLE RESOURCES

Consumption of nonrenewable resources includes increased energy consumption, conversion of agricultural lands to urban uses, and loss of access to mineral reserves. No agricultural lands would be converted and no access to mining reserves would be lost with construction of the proposed project.

Implementation of the proposed project would commit future generations to an irreversible commitment of energy resources in the form of usage of nonrenewable fossil fuels due to vehicle and equipment use during demolition, construction, and operation of the proposed project. The proposed project would comply with California Code of Regulations Title 24 standards and the City's Building Code Requirements for Construction Projects; it would not use energy in a wasteful manner. Resources consumed during demolition, construction, and operation would include lumber, concrete, gravel, asphalt, masonry, metals, and water.

The proposed project would introduce new residential, commercial, and open space land uses that would irreversibly use water resources and landfill capacity. However, the proposed project would not involve a large commitment to those resources relative to supply, nor would it consume any of those resources wastefully. The proposed project will be seeking Greenpoint Certification and GreenTrip Certification (<http://www.transformca.org/landing-page/greentrip>).⁵ The Planning Department has determined that the proposed project would comply with all relevant requirements of San Francisco's *Strategies to Address Greenhouse Gas Emissions*. See the NOP/IS, pp. 107-109 (**Appendix A** to this EIR). Further, the proposed project would not require the construction of a new power plant, or major new transmission lines to deliver energy.

The project site is already served by existing utilities and construction of new major utilities would not be necessary. The project site is almost completely covered with impervious surfaces, and construction of the proposed project would not substantially increase the amount of impervious surface area on the project site. It is anticipated that there would be no net increase in the amount of stormwater runoff with implementation of the proposed project because the City's Stormwater Management Ordinance requirements now make mandatory a reduction in at-source runoff. The proposed project would meet these requirements. The majority of stormwater would continue to be handled by the City's combined sewer collection system. The proposed project

⁵ Information on Greenpoint Certification may be found at <https://www.builditgreen.org/greenpoint-rated>. Information on Green Trip Certification may be found at <http://www.transformca.org/landing-page/greentrip>.

would not require construction of new water or wastewater conveyance or treatment facilities. The *2010 Urban Water Management Plan for the City and County of San Francisco*, which includes all known or expected development projects and projected development in San Francisco through 2030, accounts for development like the proposed project. Therefore, the proposed project would not require new or expanded water supply resources or entitlements. In summary, service providers would have the capacity to provide for the proposed level of development on the project site.

D. AREAS OF KNOWN CONTROVERSY AND ISSUES TO BE RESOLVED

The Planning Department prepared an Initial Study and published a Notice of Preparation of an EIR on June 17, 2015, announcing its intent to prepare and distribute a focused EIR (the NOP/IS is presented as **Appendix A** to this EIR). Publication of the NOP/IS initiated a 30-day public review and comment period that began on June 17, 2015, and ended on July 17, 2015. Individuals and agencies that received these notices included owners of properties within 300 feet of the project site, and potentially interested parties, including regional and state agencies. During the public review and comment period, two comment letters were submitted to the Planning Department by interested parties. On the basis of public comments on the NOP/IS, potential areas of controversy for the proposed project include the following: concern for hazardous winds in the area; concern for maintaining visual access to City Hall; concern for the project's provision of parking spaces for building residents; and concern for the proliferation of delivery vehicles and private shuttles. (See **Chapter 1, Introduction**, pp. 1.6-1.7, for a more detailed summary of issues raised by comments on the NOP/IS.)

CEQA Section 21099(d) directs that the aesthetic and parking impacts of mixed-use residential infill projects located in transit priority areas are not considered impacts on the environment under CEQA. The proposed project meets the definition of a residential, mixed-use infill project in a transit priority area. Accordingly, this EIR does not contain a separate discussion of the topic of aesthetics. The EIR nonetheless provides visual simulations for informational purposes as part of Chapter 2, Project Description.

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 CEQA Guidelines for determining transportation impacts pursuant to Section 21099(b)(1), automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or 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*⁶ (proposed transportation impact guidelines) recommending that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. VMT measures the amount and distance that a project might cause people to drive, accounting for the number of passengers within a vehicle.

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

- Found that automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall no longer be considered a significant impact on the environment pursuant to CEQA, because it does not measure environmental impacts and therefore it does not protect environmental quality.
- Directed the Environmental Review Officer to remove automobile delay as a factor in determining significant impacts pursuant to CEQA for all guidelines, criteria, and list of exemptions, and to update the Transportation Impact Analysis Guidelines for Environmental Review and Categorical Exemptions from CEQA to reflect this change.
- Directed the Environmental Planning Division and Environmental Review Officer to replace automobile delay with VMT criteria which promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses; and consistent with proposed and forthcoming changes to the CEQA Guidelines by OPR.

Planning Commission Resolution 19579 became effective immediately for all projects that have not received a CEQA determination and all projects that have previously received CEQA determinations, but require additional environmental analysis.

Accordingly, this EIR does not contain a discussion of automobile delay impacts. Instead, a VMT and induced automobile travel impact analysis is provided in Section 4.A, Transportation and Circulation. Nonetheless, automobile delay may be considered by decision-makers, independent of the environmental review process, as part of their decision to approve, modify, or disapprove the proposed project.

⁶ This document is available online at: https://www.opr.ca.gov/s_sb743.php.

6. ALTERNATIVES

A. INTRODUCTION

The following discussion evaluates alternatives to the proposed project and examines the potential environmental impacts associated with each alternative. Through comparison of these alternatives to the proposed project, the relative environmental advantages and disadvantages of each may be analyzed and weighed. California Environmental Quality Act (CEQA) Guidelines Section 15126.6(a) states that an Environmental Impact Report (EIR) must describe and evaluate a reasonable range of alternatives to the proposed project that would feasibly attain most of the proposed project's basic objectives, and would avoid or substantially lessen any identified significant adverse environmental impacts of the proposed project.

The range of alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those potentially feasible alternatives necessary to foster informed public participation and an informed and reasoned choice by the decision-making body (CEQA Guidelines Section 15126.6(f)). Therefore, not every conceivable alternative must be addressed, nor do infeasible alternatives need to be considered. CEQA generally defines “feasible” to mean the ability to be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors. The following factors may also be taken into consideration when assessing the feasibility of alternatives: site suitability; economic viability; availability of infrastructure; General Plan consistency; other plans or regulatory limitations; jurisdictional boundaries; and the ability of the proponent to attain site control (CEQA Guidelines Section 15126.6(f)(1)). An EIR need not consider an alternative whose impact cannot be reasonably ascertained and whose implementation is remote and speculative. Furthermore, an EIR need not consider every conceivable alternative, but must consider a reasonable range of alternatives that will foster informed decision-making and public participation.

Two alternatives are evaluated in this chapter:

- Alternative A: No Project Alternative; and
- Alternative B: Podium-only Alternative.

Table 6.1: Comparison of the Proposed Project to Alternatives, shown below on p. 6.2, compares the main features of the proposed project to those of the alternatives. The Podium-only Alternative would reduce the significant and unavoidable cumulative construction traffic impact that is identified for the proposed project, but not to a less-than-significant level as with the

Table 6.1: Comparison of Characteristics and Significant Impacts of the Proposed Project to the Alternatives

	Proposed Project	Alternative A: No Project (Existing Conditions)	Alternative B: Podium-only
Building Height	400 ft.	30-45 ft.	120 ft.
Stories	40	3-4	12
Uses	Residential with Ground-floor Commercial	Commercial (Retail, Parking, Office)	Residential with Ground-floor Commercial
Dwelling Units			
Studio	57 units	None	35 units
1 Bedroom	100 units	None	36 units
2 Bedroom	138 units	None	48 units
3 Bedroom	15 units	None	None
Total Units	310 units	None	119 units
GSF by Use			
Commercial (Existing)	None	50,975 gsf	None
Residential	435,465 gsf	None	160,070 gsf
Retail/Restaurant	4,025gsf	None	4,025 gsf
Parking	60,090 gsf	None	53,308 gsf
Total GSF	499,580 gsf	50,975 gsf	217,403 gsf
Parking and Loading			
Surface Parking Spaces	None	30	None
Residential Spaces	155	None	59
Carshare Spaces	2	None	2
Off-Street Truck Loading Spaces	1	None	1
Service Vehicle Loading Spaces	2	None	2
Bicycle Spaces			
Class 1	310	None	119
Class 2	60	None	8
Total Spaces	370	None	127

6. Alternatives

	Proposed Project	Alternative A: No Project (Existing Conditions)	Alternative B: Podium-only
Public Open Space Oak Plaza Privately Owned Public Open Space Total Sq. Ft.	12,250 sq. ft. 1,645 sq. ft. 13,895 sq. ft.	None None None	12,250 sq. ft. 1,645 sq. ft. 13,895 sq. ft.
Comparison of Significant Impacts			
<i>Legend:</i> NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with mitigation; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable with mitigation; NA = Not Applicable			
Transportation and Circulation – Cumulative Construction Traffic Impacts C-TR-7: The proposed project or its variant in combination with past, present, and reasonably foreseeable future development in the project vicinity would contribute considerably to significant cumulative construction-related transportation impacts.	SUM	NI	SUM
<i>Note:</i> gsf – gross square feet			
<i>Source:</i> SWCA/Turnstone Consulting			

proposed project (see Impact C-TR-7 on pp. 4.C.87-4.C.89). This alternative would also reduce less-than-significant land use, wind, and shadow impacts of the proposed project, which are analyzed for this alternative for informational purposes. This chapter identifies the Podium-only Alternative as the environmentally superior alternative (i.e., the alternative that would result in the least adverse effect on the physical environment). It concludes with a discussion of four alternatives that were considered but not analyzed further because they were rejected as infeasible or failed to meet the basic project objectives.

B. ALTERNATIVE A: NO PROJECT ALTERNATIVE

CEQA Guidelines Section 15126.6(e) requires that, among the project alternatives, a “no project” alternative be evaluated: “The purpose of describing and analyzing a no project alternative is to allow decisionmakers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.” CEQA Guidelines Section 15126.6(e)(2) requires that the no project alternative analysis “discuss the existing conditions...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on concurrent plans and policies and consistent with the available infrastructure and community services.” As noted in CEQA Guidelines Section 15126.6, an EIR on “a development project on identifiable property” typically analyzes a no project alternative, i.e., “the circumstance under which the project does not proceed. Such a discussion would compare the environmental effects of the property remaining in its existing state against environmental effects that would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed.”

DESCRIPTION

Under Alternative A: No Project, the existing conditions at the project site would not change. The existing buildings on the project site at 1500 Market Street (a three-story, 2,750-square-foot commercial building at the eastern end of the project site) and 1540 Market Street (a four-story, 48,225-sq.-ft. commercial building at the western end of the project site) would remain. The existing 30-car surface parking lot at the central portion of the project site would also remain in place.

Under the No Project Alternative, the proposed 310-unit, 40-story, 400-foot-tall (plus a 20-foot-tall parapet), 499,580-gross-square-foot residential building, which would include 4,025 gsf of ground-floor retail/restaurant space and an approximately 60,090-gsf subsurface parking garage with 155 spaces for residents, would not be constructed. No offsite below market rate units would be provided. The Muni Van Ness station elevator entrance would remain in its existing location, at the easternmost end of the project site within the 1500 Market Street building.

The project site would not be rezoned to shift the existing 120/400-R-2 Height and Bulk District from the easternmost portion of the building site (Lot 1) to the westernmost portion (Lot 5). The No Project Alternative does not preclude potential future development of the project site with a range of land uses that are permitted at the project site.

IMPACTS

This environmental analysis assumes that the existing structures and uses on the project site would not change and that the existing physical conditions, as described in detail for each environmental topic in **Chapter 4, Environmental Setting and Impacts**, would remain the same. If the No Project Alternative were implemented, none of the impacts associated with the proposed project, as described in Chapter 4, would occur. However, development and growth would continue within the vicinity of the project site as reasonably foreseeable future projects are approved, constructed, and occupied, as described on pp. 4.A.7-4.A.12.¹ These projects could contribute to cumulative impacts in the vicinity, but under the No Project Alternative, land use activity on the project site would not contribute to these cumulative impacts beyond existing levels.

Transportation and Circulation

Under the No Project Alternative, existing conditions on the project site would not change. The existing commercial buildings on the project site would continue to operate in their current condition. The existing 30-space surface parking lot in the central portion of the project site would continue to operate and would continue to be accessed from a curb cut along Oak Street. No pedestrian plaza or shared street would be constructed within Oak Street. No Franklin Street contraflow fire lane would be constructed. The existing Muni Van Ness Station elevator entrance within 1500 Market Street would continue to operate and no new Muni elevator would be constructed off site at One Van Ness. Unlike the proposed project, under the No Project Alternative there would be no changes to traffic, transit, pedestrian, bicycle, loading, emergency vehicle access, or parking conditions compared to existing conditions. No Franklin Street contraflow fire lane would be constructed. Therefore, compared to the proposed project, which would have less-than-significant project transportation and circulation impacts and would contribute considerably to a significant and unavoidable cumulative construction traffic impact, the No Project Alternative would not have any impacts related to transportation and circulation.

¹ As described on pp. 4.A.6-4.A.12, reasonably foreseeable probably future projects include 30 Van Ness Avenue, 22 Franklin Street, 1546-1564 Market Street, 1601-1637 Market Street, 1699 Market, 1700 Market, 1740 Market Street, 1390 Market Street (Fox Plaza Expansion), 10 South Van Ness Avenue (Honda site), 1500-1580 Mission Street (Goodwill site), 30 Otis Street, 1601 Mission Street (Tower Car Wash), 1563 Mission Street, 1532 Howard Street, 455 Fell Street, Market and Octavia Area Plan, Western SoMa Area Plan, Van Ness Bus Rapid Transit, Transit Effectiveness Project, Better Market Street, and Central Freeway Parcels (Parcels K, L, M, N, O, R, S, T, and U).

The suggested transportation and circulation mitigation measures and improvement measures identified for the proposed project or its variant in **Section 4.C, Transportation and Circulation** would not be applicable.

Wind

Under the No Project Alternative, there would be no change in existing wind conditions on or around the project site. The No Project Alternative would not result in the construction of any new buildings or structures that would intercept overhead wind currents, redirect them downward, and alter ground-level wind conditions. Compared to the proposed project, which would result in a less-than-significant project-level wind impact and a less-than-significant cumulatively considerable contribution to significant cumulative wind impacts, the No Project Alternative would have no impacts related to wind. Winds would likely continue to be strong and would likely change with construction of reasonably foreseeable projects anticipated for the area, but it would be speculative and outside the scope of this EIR to determine those changes to wind conditions given what is known about the design of reasonably foreseeable projects and the sequence in which they are constructed, if constructed at all.

Shadow

Under the No Project Alternative, there would be no change in existing sunlight conditions on any of the nearby Recreation and Park Commission properties, privately owned publicly accessible open spaces (POPOS), or public sidewalks. The No Project Alternative would not cast net new shadow on the aforementioned open spaces or other public areas. Compared to the proposed project, which would result in a less-than-significant project-level shadow impact and a less-than-significant cumulatively considerable contribution to significant cumulative shadow impacts, the No Project Alternative would have no impacts related to shadow.

Other Topics

The Notice of Preparation/Initial Study (NOP/IS) and public scoping process concluded that the proposed project would have no impacts, less-than-significant impacts, or less-than-significant impacts with mitigation in the following analysis areas:

- Land Use and Land Use Planning;
- Population and Housing;
- Cultural and Paleontological Resources;
- Noise;
- Air Quality;
- Greenhouse Gas Emissions;

- Recreation;
- Utilities and Service Systems;
- Public Services;
- Biological Resources;
- Geology and Soils;
- Hydrology and Water Quality;
- Hazards/Hazardous Materials;
- Mineral/Energy Resources; and
- Agricultural and Forest Resources.

The No Project Alternative would result in no impacts related to any of the above-listed environmental topics, because this alternative would result in no changes to existing site conditions. Therefore, mitigation measures presented in the NOP/IS (**Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery and Reporting; Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program; Mitigation Measure M-NO-2: General Construction Noise Control Measures; Mitigation Measure M-NO-3: Vibration Attenuation; Mitigation Measure M-AQ-2: Construction Air Quality; and Mitigation Measure M-AQ-4: Best Available Control Technology for Diesel Generators**) would not be required under the No Project Alternative.

CONCLUSION

Under the No Project Alternative, the existing conditions at the project site would not change. The No Project Alternative would have no impacts related to transportation and circulation, wind, or shadow. In addition, the No Project Alternative would have no impacts related to topics determined in the NOP/IS to be either less than significant or less than significant with mitigation under the proposed project.

Relationship to Project Objectives

The No Project Alternative would not achieve any of the objectives of the project sponsor presented in **Chapter 2, Project Description**, on pp. 2.1-2.2.

C. ALTERNATIVE B: PODIUM-ONLY ALTERNATIVE

DESCRIPTION

Alternative B: Podium-only Alternative would comply with the existing height and bulk limits by reducing the height of the building. As discussed in **Chapter 3, Plans and Policies**, p. 3.4, most

of the project's building site (Block 0836, Lots 1 through 4 plus the eastern half of Lot 5) is in a 120/400-R-2 Height and Bulk District.² The remainder of the building site (the western half of Block 0836, Lot 5) is in a 120-R-2 Height and Bulk District. The proposed podium building would comply with the height limit within most of the building site. However, the westernmost portion of the project's proposed upper tower (floors 13-40) would be partially within the existing 120-R-2 Height and Bulk District and would require the adoption of legislative amendments to shift the existing Height and Bulk District 120/400-R-2 designation from Lot 1 to the western half of Lot 5 on Assessor's Block 0836. No such legislative amendments would be required for the Podium-only Alternative, as discussed below.

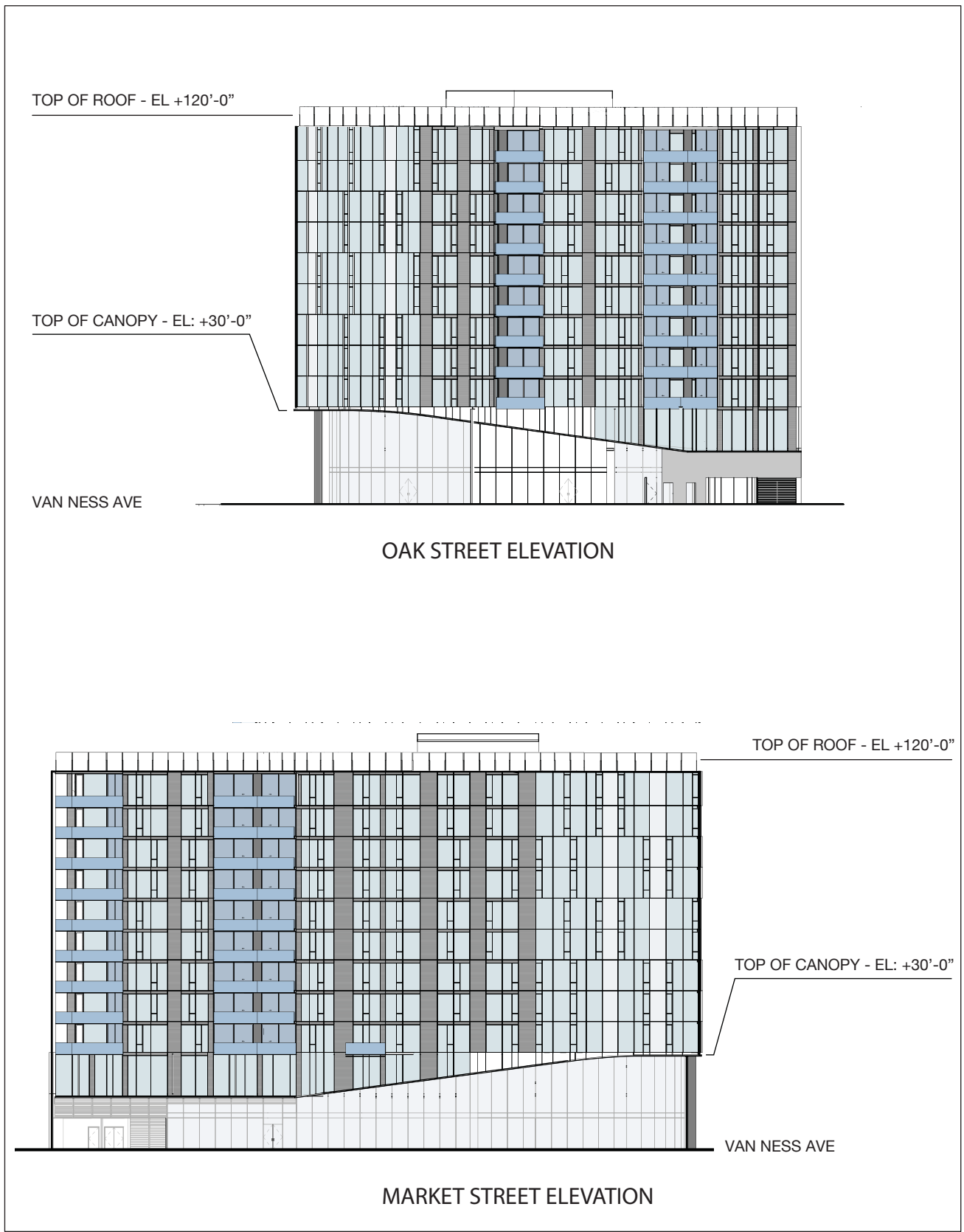
Building Height and Form

The Podium-only Alternative provides a development alternative that would conform to the existing height and bulk districts applicable to the project site. Under this alternative, a new 12-story residential building measuring 120 feet tall (136 feet tall including a mechanical penthouse) would be constructed within the building site. See **Figure 6.1: Podium-only Alternative - Elevations**. In plan, this alternative would resemble the site plan and corresponding floor level plans of the proposed project (see **Figure 2.3** on p. 2.8) and levels 2-12 (see **Figure 2.4** on p. 2.9, **Figure 2.5** on p. 2.10, and **Figure 2.6** on p. 2.11).

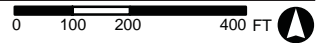
Building and Use Program

Under the Podium-only Alternative the new building would contain 119 dwelling units (191 fewer units than under the proposed project), consisting of 35 studio units, 36 one-bedroom units, and 48 two-bedroom units. No three-bedroom units would be constructed. Residential uses would total 160,070 gsf (including residential units, lobby, amenity, circulation, and services). Like the proposed project, this alternative would also provide for 4,025 gsf of ground-floor retail/restaurant uses. Parking uses would total 53,308 gsf (6,782 gsf less than the proposed project). The alternative would provide 59 residential parking spaces, as compared to 155 spaces with the proposed project. Like the proposed project, the Podium-only Alternative would provide two carshare spaces, one off-street truck loading space, and two service vehicle loading spaces. The number of bicycle parking spaces would total 127 (119 Class 1 and 8 Class 2 spaces), fewer spaces than with the proposed project (370 spaces consisting of 310 Class 1 and 60 Class 2 spaces). See Table 6.1 on pp. 6.2-6.3.

² The 120/400-R-2 Height and Bulk District allows for a 120-foot-high podium base surmounted by a 400-foot-high tower with a maximum length of 115 feet and a maximum diagonal length of 145 feet.



Source: Build Inc. (2016)



ONE OAK PROJECT

FIGURE 6.1: PODIUM ONLY ALTERNATIVE - ELEVATIONS

Other Features

This alternative would include the same right-of-way improvements as the proposed project, described on pp. 2.22-2.25 (including construction of the proposed Oak Plaza, the wind canopy within Oak Plaza. Access to and operation of the parking garage, bicycle parking, and loading would be same as that of the proposed project, described on pp. 2.15-2.22. Likewise, this alternative would include the same off-site features as with the proposed project, described on pp. 2.26-2.30 (including the contraflow fire lane on Franklin Street, Muni Van Ness station elevator relocation, on-street parking and commercial loading along Oak Street, and the offsite wind canopy at Polk and Market streets.

Discretionary Approvals

The Podium-only Alternative would require most of the same discretionary project approvals identified on pp. 2.28-2.31. However, it would not require any joint determination by the Recreation and Park Commission and Planning Commission under Planning Code Section 295 because shadow under this alternative would not reach any Recreation and Park property during the applicable times of day specified under Section 295. It would not require any action of the Planning Commission or Board of Supervisors related to shifting the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836 and reclassifying Lot 1 on Assessor's Block 0836 to 120-R-2.

IMPACTS

Transportation and Circulation

This subsection summarizes and incorporates by reference the *One Oak Street Project – Alternatives Assessment*, prepared by the transportation consultant.³ Under the Podium-only Alternative, there would be 191 fewer residential units than in the proposed project (from 310 units to 119), and a change to the mix of units with an increase in the proportion of studio/one-bedroom units (from 50 percent of all proposed units in the proposed project or its variant to 60 percent under the Podium-only Alternative). Like the proposed project, this alternative would have the 4,025 gsf of ground-floor retail/restaurant uses. As a result, the number of person and vehicle trips under the Podium-only Alternative would be substantially less than under the proposed project or its variant (see **Table 6.2: Trip Generation by Mode – Weekday PM Peak Hour, Proposed Project and Podium-only Alternative**).

³ LCW Consulting, Memo: One Oak Street Project – Alternatives Assessment, April, 2016.

Table 6.2: Trip Generation by Mode – Weekday PM Peak Hour, Proposed Project and Podium-only Alternative

Project/Alternative	Person Trips				Total	Vehicle Trips
	Auto	Transit	Walk	Other ^a		
Weekday PM Peak Hour						
Proposed Project	193	158	47	44	442	160
Podium-only Alternative	68	58	9	14	149	64

Note:

^a Other mode includes bicycles, motorcycles, and taxis.

Sources: SF Guidelines 2002; 2000 U.S. Census; LCW Consulting, 2016

As indicated in **Table 6.2**, during the PM peak hour, the Podium-only Alternative would generate 149 person trips compared to about 442 person trips for the proposed project or its variant (i.e., about 66 percent fewer person trips than the proposed project). Similarly, the Podium-only Alternative would generate 64 vehicle trips compared to 160 vehicle trips for the proposed project or its variant (i.e., about 60 percent fewer vehicle trips than the proposed project or its variant).

Vehicle Miles Traveled Impacts

Similar to the proposed project or its variant, the Podium-only Alternative would be located in an area where existing vehicle miles traveled (VMT) is more than the threshold of 15 percent below the existing regional average for both residential and retail uses, and the project site meets the Proximity to Transit screening criterion, which also indicates that the proposed uses would not result in substantial additional VMT. As shown in **Table 6.2**, the Podium-only Alternative would generate fewer vehicle trips than the proposed project or its variant. During the weekday PM peak hour, the new uses associated with the Podium-only Alternative would generate about 64 vehicle trips compared to about 160 vehicle trips in the proposed project or its variant. Similar to the proposed project or its variant, the Podium-only Alternative's features that would alter the transportation network would fit within the general types of projects that would not substantially induce automobile travel, and would not have a considerable contribution to any substantial cumulative increase in automobile travel. Therefore, impacts related to VMT under this alternative would be less than significant, as with the proposed project or its variant.

While the Podium-only Alternative, like the proposed project or its variant, would result in a less-than-significant impact related to VMT, **Improvement Measure I-TR-A: Transportation Demand Management Plan**, identified for the proposed project or its variant to help shift travel modes from single-occupant vehicle to more sustainable forms such as transit, walking, and biking (described on pp. 4.C.44-4.C.45), would also be applicable to this alternative.

Transit Impacts

As shown in **Table 6.2**, the Podium-only Alternative would generate fewer transit trips than the proposed project or its variant. During the weekday PM peak hour, the new uses associated with

the Podium-only Alternative would generate about 58 transit trips compared to about 158 transit trips in the proposed project or its variant. With a reduction in the number of transit riders added to the local and regional transit screenlines and corridors, the impacts of the Podium-only Alternative on local and regional transit capacity utilization and Muni operations on adjacent streets would be less than significant, as with the proposed project or its variant.

Similar to the proposed project, the Podium-only Alternative includes the relocation of the existing Muni Van Ness station elevator across the street to the One Van Ness Avenue building. The relocation of the elevator would not substantially affect transit access to the Muni Van Ness station. Therefore, transit impacts under this alternative would be less than significant, as with the proposed project or its variant.

Pedestrian Impacts

The Podium-only Alternative would generate fewer pedestrian trips than the proposed project or its variant. During the weekday PM peak hour, the new uses associated with the Podium-only Alternative would generate about 81 pedestrian trips compared to about 294 pedestrian trips in the proposed project or its variant. With a reduction in the number of pedestrians added to the local pedestrian network and the number of vehicles accessing the project site under this alternative, impacts related to pedestrian LOS conditions on the adjacent sidewalk on Market Street and the potential for pedestrian-vehicle conflicts would be less than for the proposed project or its variant, and would be less than significant. Under this alternative, conditions on the proposed shared street would be similar to the proposed project or its variant, and would enhance pedestrian conditions adjacent to the project. This alternative would not substantially affect pedestrian flows on Van Ness Avenue, or on Market or Oak Streets, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas. Therefore, as with the proposed project or its variant, pedestrian impacts under this alternative would be less than significant.

Bicycle Impacts

The Podium-only Alternative would provide 119 Class 1 and 8 Class 2 bicycle parking spaces, and, like the proposed project or its variant, would meet the Planning Code requirements. Similar to the proposed project or its variant, the Class 1 bicycle parking spaces would be located within a secured room in the mezzanine level, which would be accessed via a dedicated bicycle elevator. The eight Class 2 bicycle spaces would be located on sidewalks on Oak and Market streets, subject to San Francisco Municipal Transportation Agency approval. The Podium-only Alternative would result in a smaller increase in the number of vehicles and bicycles in the vicinity of the project site than the proposed project or its variant, and, similar to the proposed project or its variant, this increase would not be substantial enough to affect bicycle travel or

facilities in the area. The Podium-only Alternative would not substantially change bicycle travel in the vicinity of the project site, and therefore, similar to the proposed project or its variant, impacts on bicyclists would be less than significant.

Loading Impacts

As described above, the Podium-only Alternative would provide one truck and two service vehicle loading spaces with access from Oak Street, similar to the proposed project or its variant. Under the Podium-only Alternative, the new uses would generate about 19 delivery/service vehicle-trips to the project site per day compared to 28 trips for the proposed project or its variant, and the loading demand would be accommodated on site. Similar to the proposed project or its variant, trucks serving the project site would be able to use the existing on-street recessed commercial loading bay on Market Street and the planned on-street commercial loading space to the west of the project site for the 1546 Market Street building. Since the Podium-only Alternative would provide off-street loading, and because the loading demand could be accommodated on site and at the existing and planned on-street commercial loading spaces, loading impacts under this alternative would be less than significant, as with the proposed project or its variant.

While the Podium-only Alternative, like the proposed project or its variant, would result in less-than-significant loading impacts, **Improvement Measures I-TR-B: Revision of Truck Restrictions on Market Street, I-TR-C: Removal of Flexible Bollards on Market Street, and I-TR-D: Loading Operations Plan**, identified for the proposed project or its variant and described on pp. 4.C.58- 4.C.59, would also be applicable to this alternative to lessen the effect of loading operations on traffic and transit operations.

Emergency Access Impacts

As with the proposed project, the Podium-only Alternative would include a contraflow fire lane on Franklin Street between Oak and Page/Market streets (described on pp. 2.26-2.28). As with the proposed project, emergency service providers would continue to be able to pull up to the project site, as well as to other buildings on the project block, from either Market or Oak streets, and emergency vehicles departing from the San Francisco Fire Department Station 36 on Oak Street west of Franklin Street would be able to use an exclusive fire lane on Franklin Street, but would continue to have access onto Oak Street and across Oak Plaza. The Podium-only Alternative would not limit emergency vehicle access to the project site and nearby vicinity. Similar to the proposed project or its variant, the impacts of the Podium-only Alternative on emergency access would be less than significant.

Construction Impacts

Construction activities associated with the Podium-only Alternative would be similar to those described for the proposed project or its variant. Under this alternative construction would occur over a period of approximately 26 months, 4-6 months shorter than the 32-month construction period for the proposed project or its variant. As with the proposed project or its variant, construction-related transportation impacts would be significant and unavoidable under this alternative. Mitigation **Measure M-TR-E: Construction Mitigation Measures**, identified for the proposed project or its variant and described on pp. 4.C.67-4.C.68, would also be applicable to this alternative, but would not reduce its significant construction-related transportation impact to a less-than-significant level.

Parking Information

Table 6.3: Comparison of Vehicle Parking Supply and Demand, Proposed Project and Podium-only Alternative presents the parking supply and demand comparisons for the overnight and midday periods for the proposed project or its variant and the Podium-only Alternative. Midday residential parking demand would be approximately 80 percent of the overnight demand.

Table 6.3: Comparison of Vehicle Parking Supply and Demand, Proposed Project and Podium-only Alternative

Project/Alternative and Period	Supply	Demand	(Shortfall)/Surplus
Midday			
Proposed Project	155	334	(179)
Podium-only Alternative	59	134	(75)
Overnight			
Proposed Project	155	402	(247)
Podium-only Alternative	59	150	(91)

Source: SF Guidelines 2002, LCW Consulting, 2016

The Podium-only Alternative would include fewer residential units (i.e., 119 units compared to 310 units for the proposed project or its variant), and therefore the parking demand would be less than that for the proposed project or its variant. As with the proposed project or its variant, this alternative would have an unmet parking demand during the midday and overnight periods, although, as shown on **Table 6.3**, the unmet parking space demand would be less.

Parking demand would also increase from the proposed elimination of the surface parking lot on the project site, as well as the on-street parking spaces on Oak and Franklin streets to implement the Oak Street shared street and the Franklin Street fire lane. This demand would need to be accommodated elsewhere in off-street facilities and on streets in the vicinity. Due to difficulty in finding on-street parking in the study area, some drivers may park outside of the study area or switch to transit, carpool, bicycle, or other forms of travel. As discussed above, the project site is well served by public transit and bicycle facilities. Therefore, similar to the proposed project or

its variant, the unmet parking demand would not create hazardous conditions or significant delays affecting traffic, transit, bicycles, or pedestrians under this alternative; however, to encourage sustainable modes such as transit, walking, and bicycling, **Improvement Measure I-TR-A: Transportation Demand Management Plan**, identified for the proposed project or its variant and described on pp. 4.C.44-4.C.45, would also be applicable to the Podium-only Alternative.

2040 Cumulative Conditions

As shown in **Table 6.3**, the Podium-only Alternative would generate fewer person and vehicle trips than would the proposed project or its variant. Similar to the proposed project or its variant, the Podium-only Alternative would be located in an area where VMT is more than 15 percent below the projected regional average for both residential and retail uses, and would not contribute considerably to any substantial cumulative increase in VMT. As described above, the Podium-only Alternative's features that would alter the transportation network would fit within the general types of projects that would not substantially induce automobile travel, and would not have a considerable contribution to any substantial cumulative increase in automobile travel. In addition, similar to the proposed project or its variant, the Podium-only Alternative would result in less-than-significant cumulative transit, bicycle, pedestrian, loading, and emergency vehicle access impacts. Similar to the proposed project, this alternative would contribute considerably to a significant cumulative construction-related transportation impact. Mitigation Measure M-C-TR-7 would reduce, but would not eliminate, this significant cumulative impact.

In summary, similar to the proposed project or its variant, under the Podium-only Alternative there would be less-than-significant project-level impacts and no cumulatively considerable contribution to significant cumulative impacts related to transportation.

Wind

Under Podium-only Alternative wind conditions would improve compared to the Proposed Project Configuration under both the comfort and hazard criteria.

Podium-only Alternative under Comfort Criteria

Under the comfort criteria, average wind speed exceeded 10 percent of the time would reduce from 13.9 mph to 12.7 mph compared to the Proposed Project Configuration, and the number of locations at which the 11 mph comfort criterion would be exceeded would reduce from 45 points under the Proposed Project Configuration to 40 points. The removal of the 400-foot-tall tower under this alternative would reduce the "down-draft" effect otherwise exhibited above the 120-foot-tall podium in the project, but this alternative would still require the Planning Commission to consider adopting exceptions for the comfort criteria exceedances, as permitted by Planning Code Section 309.

Podium-only Alternative under Hazard Criteria

Under the hazard criteria, six out of seven locations that would fail to meet the hazard criterion in the Proposed Project Configuration would fail to meet the hazard criterion under the Podium-only Alternative (test points #1, #4, #5, #97, #105, and #112), representing a net reduction of one hazard exceedance location at the western crosswalk of the Van Ness / Market intersection (test point #57). Under the Podium-only Alternative, the total number of hazard exceedance hours would reduce by 8 hours, per year from 80 to 72 hours per year, compared to that of the Proposed Project Configuration.

Cumulative Conditions

Compared to the Podium-only Alternative under the existing conditions, hazard exceedances for this alternative under cumulative conditions would have a net increase of two points (eliminate three locations and create five locations), and the total number of hazard exceedance hours would increase by 82 hours per year, from 72 to 154 hours per year.

The Podium-only Alternative would improve wind conditions from that of the proposed project under the cumulative conditions as a result of less “down-draft” effect due to the absence of the tower above the 120-foot-tall podium under both comfort and hazard criteria.

Regarding wind comfort, the average wind speed exceeded 10 percent of the time would reduce slightly from 14.4 mph for the proposed project under cumulative conditions to 13.8 mph under the Podium-only Alternative under cumulative conditions, and the number of locations at which the 11 mph comfort criterion is exceeded would reduce by four, from 46 to 42 test points.

With respect to wind hazards, the Podium-only Alternative under cumulative conditions would create eight hazard exceedances (test points #1, #29, #33, #54, #92, #97, #105, and #117) compared to the 10 hazard exceedances for the proposed project under the Cumulative Configuration. This alternative would eliminate two hazard exceedance points, one at the north-eastern intersection of Market Street and South Van Ness (test point #6) and the other at the western Muni station at the Market and Van Ness intersection (test point #58). The total number of hazard exceedance hours would reduce by 52 hours per year, from 206 to 154 hours per year, compared to the cumulative scenario.

Shadow

The 120-foot-tall Podium-only Alternative is approximately 280 feet shorter than the proposed project. At any given time, the length of shadow under this alternative would be proportionally shorter than shadow from the proposed project by about 70 percent. Shadow under this

alternative would not reach Patricia's Green, Page and Laguna Mini Park, or Koshland Park during the times of day covered under Planning Code Section 295.

Due to the adjacency of the proposed Oak Plaza open space immediately north of the new building under both the proposed project and the Podium-only Alternative, the impact under this alternative would be largely similar to that described for the proposed project on p. 4.E.21. For most of the year, the 12-story podium under the proposed project would cause all or most of the shadow on the adjacent Oak Plaza, rather than the upper tower portions of the proposed building. The new 12-story building under the Podium-only Alternative would have a similar effect for most of the year as well. During spring and summer afternoons, when the sun is high in the western sky, the 12-story Podium-only Alternative would create less shade in the northern portion of Oak Plaza than would the proposed project.

Like the proposed project, the Podium-only Alternative would have a less-than-significant project-level shadow impact and a less-than-significant cumulatively considerable contribution to significant cumulative shadow impacts.

Other Topics

The NOP/IS and public scoping process concluded that the proposed project would have no impacts, less-than-significant impacts, or less-than-significant impacts with mitigation in the following analysis areas:

- Land Use and Land Use Planning;
- Population and Housing;
- Cultural and Paleontological Resources;
- Noise;
- Air Quality;
- Greenhouse Gas Emissions;
- Recreation;
- Utilities and Service Systems;
- Public Services;
- Biological Resources;
- Geology and Soils;
- Hydrology and Water Quality;
- Hazards/Hazardous Materials;
- Mineral/Energy Resources; and
- Agricultural and Forest Resources.

The Podium-only Alternative would occupy the same building site as the proposed project and would include residential land uses and a substantially similar (but lessened) residential intensity of uses on the site. Impacts under this alternative for each of the above-noted environmental topics would be substantially similar to those of the proposed project. The Podium-only Alternative would not result in any new potentially significant impacts for the environmental topics identified in the NOP/IS for the proposed project. The mitigation measures presented in the NOP/Initial Study for the proposed project (**Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery and Reporting; Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program; Mitigation Measure M-NO-2: General Construction Noise Control Measures; Mitigation Measure M-NO-3: Vibration Attenuation; Mitigation Measure M-AQ-2: Construction Air Quality; and Mitigation Measure M-AQ-4: Best Available Control Technology for Diesel Generators**) would also be applicable under the Podium-only Alternative. Therefore, the conclusions in the NOP/IS with respect to the above environmental topics would be less than significant or less than significant with mitigation under the Podium-only Alternative.

CONCLUSION

As with the proposed project, the Podium-only Alternative would result in a significant and unavoidable impact related to transportation (construction traffic), and less-than-significant impacts related to other transportation subtopics, wind, and shadow.

Relationship to Project Objectives

For the purposes of selecting alternatives for inclusion and study within the EIR under CEQA Guidelines Section 15126.6, the Podium-only Alternative could feasibly attain most of the project sponsor's basic objectives of the proposed project, as presented in **Chapter 2, Project Description**, on pp. 2.1-2.2.

This alternative would provide 191 fewer units (61.6 percent fewer) than the proposed project, which would provide 310 units. Compared to the proposed project, this alternative would not maximize the opportunity to increase the supply of housing in an area designated for higher residential density due to its proximity to downtown and accessibility to local and regional transit. In addition to fewer units, this alternative would have no tower units on desirable upper floors to maximize window exposure and views from the units. As such, this alternative would produce a substantially lower return on investment for the project sponsor and investors. Additionally, this alternative would not achieve the same level of compatibility with the Market and Octavia Neighborhood Plan objectives. This alternative would not result in a high-rise residential tower at this prominent intersection as envisioned by the Market and Octavia Neighborhood Area Plan.

C. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(2) requires identification of an environmentally superior alternative (the alternative that has the fewest significant environmental impacts) from among the other alternatives evaluated if the proposed project has significant impacts that cannot be mitigated to a less-than-significant level. If the No Project Alternative is found to be the environmentally superior alternative, the EIR must identify an environmentally superior alternative among the other alternatives.

The No Project Alternative would not result in any change to existing environmental conditions. The Podium-only Alternative would result in an overall reduction of impacts identified for the proposed project. It would result in reduced cumulative construction traffic impacts due to its shorter construction period. As with the proposed project or its variant, cumulative construction-related transportation impacts would be significant and unavoidable under this alternative.

Mitigation Measure M-C-TR-7: Cumulative Construction Coordination, identified for the proposed project or its variant and described on pp. 4.C.88-4.C.89, would also be applicable to this alternative, but would not reduce its significant construction-related transportation impact to a less-than-significant level.

It would have 191 fewer dwelling units than the proposed project (61.6 percent fewer). As such, it would result in lower trip generation than the proposed project and reduced impacts related to transportation and circulation. The Podium-only Alternative would be 280 feet shorter than the proposed project (70 percent shorter) and would result in reduced wind hazard and comfort criteria exceedances compared to the proposed project. Shadow under this alternative would not reach any properties controlled by the Recreation and Park Department and shadow on other public open spaces under this alternative, including the proposed Oak Plaza, would be reduced.

D. ALTERNATIVES CONSIDERED BUT REJECTED

Section 15126.6(c) of the CEQA Guidelines provides that an EIR should “identify any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination.” The screening process for identifying viable EIR alternatives included consideration of the following criteria: ability to meet the project objectives; potential ability to substantially lessen or avoid environmental effects associated with the proposed project; and potential feasibility. The discussion below describes alternatives that were considered in the preparation and scoping of the EIR, and provides the reasons for eliminating these alternatives from detailed consideration in the EIR.

OFF-SITE ALTERNATIVE

An off-site alternative was eliminated from consideration as an alternative to the proposed project. The project site is already controlled by the project sponsor. To the extent that other suitable development sites may be available in the vicinity, the project sponsor holds no ownership, option, or development interest in any such parcel and has not indicated any plans to acquire such development rights in the near future. As such, an off-site alternative would not feasibly attain any of the project sponsor's basic objectives. Additionally, an off-site alternative would not create high-density housing on this prominent site which is designated for high-density residential use due to its proximity to downtown and local and regional transit.

CODE COMPLIANT WITH TOWER ALTERNATIVE

In addition to reducing the height of the proposed project, as discussed above under the Podium-only Alternative, compliance with the existing Height and Bulk Districts within the project site could be achieved by shifting the placement of a 400-foot-tall tower eastward so that the tower would be located entirely outside of the existing 120-R-2 Height and Bulk District at the western end of the project site and entirely within the existing 120/400-R-2 Height and Bulk District (a shift eastward of 4 feet, 7.5 inches).

Such an alternative was rejected from consideration as an EIR alternative as it would reduce the amount of privately owned, publicly accessible open space offered under the proposed project, particularly at the eastern end of the building site within Lot 1, while offering no environmental advantages over the proposed project. Impacts related to Transportation and Circulation would be substantially the same as described for the proposed project.

As with the proposed project or its variant, such an alternative would have a significant and unavoidable transportation impact related to construction traffic. The same mitigation measures identified for this impact under the proposed project or its variant would also be applicable to this alternative, but would not reduce its significant construction-related transportation impact to a less-than-significant level.

Under a code-complying with tower alternative the 400-foot tower element would not be shifted westward by 4 feet, 7 inches. This slight westward shift of the tower element under the proposed project is intended to reduce the horizontal dimension of the podium and thereby reduce the wind funneling effect that would result from a wider podium. As such, impacts related to Wind would not improve or could worsen under such an alternative from the less-than-significant impact identified for the proposed project, due to the elongation of the east-west dimension of the 12-story podium base with the eastward shift of the tower which could increase the wind funneling effect.

Impacts related to Shadow would be substantially similar to the less-than-significant impacts identified for the proposed project, although shadow under this alternative at any given time would be shifted slightly eastward from that of the proposed project, causing increased morning and midday shadow on the proposed Oak Plaza open space.

Additionally, shifting the tower to the west would allow for approximately 1,700 additional square feet of plaza area within the eastern portion of the building site. Shifting the tower westward would also allow for a widening of the Van Ness Avenue and Market Street sidewalks.

LOWER PODIUM-ONLY ALTERNATIVES

An 80-foot-tall podium-only alternative and a 40-foot-tall podium-only alternative were considered as potential means to further reduce impacts from those of the Podium-only Alternative, but rejected. These alternatives would maintain the same building footprint as the proposed project, along with the same ground floor and plaza features, but would remove the tower portion as well as the top 40 feet and 80 feet, respectively, of the podium compared to the proposed project.

As with the proposed project or its variant, such alternatives would have a significant and unavoidable transportation impact related to construction traffic. The same mitigation measures identified for this impact under the proposed project or its variant would also be applicable to these alternatives, but would not reduce their significant construction-related transportation impact to a less-than-significant level.

Although a shorter building would reduce the less-than-significant wind and shadow effects identified for the proposed project, it would result in a significant reduction in density and therefore fail to meet the key project objectives of providing dense residential development in an area that is proximate to the downtown and is accessible to local and regional transit. These alternatives would also fail to meet the architectural and urban design objectives for the intersection by under developing one of the four corners of the intersection intended to demarcate the “Hub” area of the Market and Octavia Neighborhood Plan (Market Octavia Plan Policy 1.2.5).

LOWER PODIUM WITH TOWER ALTERNATIVES

An 80-foot-tall podium with tower alternative and a 40-foot-tall podium with tower alternative were considered as potential means to further reduce impacts from those of the Podium-only Alternative, but rejected. These alternative would maintain the same building footprint as the proposed project, along with the same ground floor and plaza features, but would reduce the podium height by 40 feet and 80 feet, respectively, compared to the proposed project. The tower

portion would remain in place in these alternatives. These alternatives were rejected because they would not substantially reduce environmental impacts as compared to the proposed project.

As with the proposed project or its variant, such alternatives would have a significant and unavoidable transportation impact related to construction traffic. The same mitigation measures identified for this impact under the proposed project or its variant would also be applicable to these alternatives, but would not reduce their significant construction-related transportation impact to a less-than-significant level.

These alternatives would cause shadow effects similar to those with the proposed project, because the tower portion that would cause the shadow effects would remain in these alternatives. Additionally, these alternatives would not substantially reduce the wind effects compared to the proposed project.

7. REPORT PREPARERS

A. EIR AUTHORS

Planning Department, City and County of San Francisco
Environmental Planning Division

1650 Mission Street, Suite 400
San Francisco, CA 94103

Acting Environmental Review Officer:	Lisa M. Gibson
Environmental Coordinator:	Michael Jacinto
Environmental Supervisor:	Rick Cooper
Transportation Planner:	Brett Bollinger

B. EIR CONSULTANTS

SWCA/Turnstone Consulting
330 Townsend Street, Suite 216
San Francisco, CA 94107

Principal in Charge:	Barbara W. Sahn
Project Manager:	Michael Kometani
	Peter Mye
	Juliana Lehnen
	Elizabeth Haines

LCW Consulting (Transportation)
3990 20th Street
San Francisco, CA 94114

Principal Consultant:	Luba C. Wyznyckyj, AICP
-----------------------	-------------------------

BMT Fluid Mechanics (Wind)
180 Varick Street, Suite 506
New York, NY 10014

Project Manager:	Max Lee
	Robin Stanfield

Environmental Science Associates (Shadow)
550 Montgomery Street, Suite 800
San Francisco, CA 94108

Managing Associate	Charles Bennett
Project Technician	Rachel Larsen

Kelley & VerPlanck Historical Resources Consulting (Historic Resource Evaluation)
2912 Diamond Street, #330
San Francisco, CA 94131

Architectural Historian: Tim Kelley

William Self Associates Inc. (Preliminary Archaeological Sensitivity Study)
P.O. Box 2192
61d Avenida de Orinda
Orinda, CA 94564

Preparers: Aimee Arrigoni
Angela Cook

Brown and Buntin Associates, Inc. (Noise)
406 W. School Avenue
Visalia CA 93291

Langan Treadwell Rollo (Preliminary Geotechnical Study)
555 Montgomery Street, Suite 1300
San Francisco, CA 94111

Senior Project Manager: Cary E. Ronan, GE
Vice President: Hadi J. Yap, PhD, GE
Principal: Cabe C. Silverhame

John Carver Consulting (Phase I Environmental Site Assessment)
670 Vernon Street
Oakland, CA 94610
Civil Engineer: John Carver

C. PROJECT SPONSOR

One Oak Owner, LLC
315 Linden Street
San Francisco, CA 94102

Principal: Michael Yarne
Senior Development Manager: Steven Kuklin
Assistant Project Manager: Carlos Vasquez

PROJECT SPONSOR ATTORNEYS

Gibson, Dunn & Crutcher
555 Mission Street, Suite 3000
San Francisco, CA 94105

Mary G. Murphy, Esq.

PROJECT SPONSOR ARCHITECTS

SCB Architects
255 California Street, 3rd Floor
San Francisco, CA 94111

7. Report Preparers

Snøhetta
San Francisco Studio
236 8th Street, Suite 100
San Francisco, CA 94103

APPENDIX A: NOP/INITIAL STUDY



SAN FRANCISCO PLANNING DEPARTMENT

Notice of Preparation of an Environmental Impact Report

Date: **June 17, 2015**
Case No.: **2009.0159E**
Project Title: **One Oak Street Project**
Zoning: **C-3-G (Downtown Commercial, General) Use District
120/400-R-2 and 120-R-2 Height and Bulk Districts**
Block/Lot: **Assessor's Block 836 / Lots 1, 2, 3, 4, 5 (aka 1500-1540 Market Street)**
Lot Size: **18,735 square feet**
Project Sponsor: **Katie O'Brien, Build Inc., (415) 551-7610**
Lead Agency: **San Francisco Planning Department**
Staff Contact: **Michael Jacinto – (415) 575-9033
michael.jacinto@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

The project site is located at the northwest corner of the intersection of Market Street, Oak Street, and Van Ness Avenue in the southwestern portion of San Francisco's Downtown/Civic Center neighborhood. The project site includes five contiguous privately owned lots within Assessor's Block 836 (Lots 1, 2, 3, 4, and 5), the "building site," totaling about 18,735 square feet. The project site also includes surrounding areas within adjacent public rights-of-way (totaling about 22,610 square feet) along the building site's Market Street, Van Ness Avenue and Oak Street frontages, in which pedestrian streetscape improvements would be constructed as part of the proposed project.

The proposed project consists of the demolition of the two existing buildings on the site (1500 Market Street on Lot 1, and 1540 Market Street on Lot 5) and construction of a new, 39-story residential building (400 feet tall plus a 20-foot-tall parapet, for a total height of 420 feet). The proposed project would include a total of 320 residential units, consisting of about 29 studio units, 163 one-bedroom units, 120 two-bedroom units, and 8 three-bedroom units. The proposed project would also include about 12,970 gsf of retail/restaurant uses on the ground floor and potentially on the 2nd floor. The proposed project would include 160 accessory parking spaces for building residents in an approximately 84,000-gsf, three-level subsurface garage. Vehicles would access the parking garage from Oak Street and would reach the subsurface parking levels by car elevators. The three-level subsurface garage would extend laterally approximately 43 feet northward beneath the Oak Street right-of-way.

Pedestrian streetscape improvements within the adjacent public rights-of-way include the closure of the easternmost segment of Oak Street to general vehicular traffic (but would remain open to emergency vehicles), and construction of a new public plaza within the Oak Street right-of-way. The proposed plaza would include a free-standing, approximately 40-foot-tall wind canopy that would span over the street along the site's Oak Street frontage. The proposed project also entails the relocation of the Muni Metro Van Ness station entrance from its current location along Market Street to the southwest corner of the Van Ness Avenue and Oak Street intersection. An optional scheme that would retain the Muni Metro entrance at its existing location is also under consideration by the project sponsor as a variant to the proposed project.

Approvals required for the proposed project include, but are not limited to, the following: A determination under Planning Code Section 295 that the project would have no adverse impact on Recreation and Park Commission properties; approval of the project under Planning Code Section 309, including possible exceptions with regard to ground-level winds, off-street freight loading spaces, rear yard, and dwelling unit exposure; approval of a General Plan amendment and an ordinance to amend the Zoning Map to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 836; approval of an underground easement under a portion of the Oak Street right-of-way for a proposed subsurface parking garage; approval of changes in public rights-of-way and of conversion of a portion of Oak Street into a publicly owned pedestrian plaza; approval of a proposed wind canopy within the Oak Street right-of-way; approval of the relocation of the Muni Metro station entrance and Muni Metro elevator.

DETERMINATION

This project may have a significant effect on the environment and an Environmental Impact Report is required. This determination is based upon the criteria of the State CEQA Guidelines, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and for the reasons documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

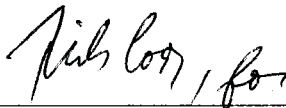
PUBLIC SCOPING PROCESS

Written comments will be accepted until 5:00 p.m. on **July 17, 2015**. Written comments should be sent to Sarah B. Jones, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103.

If you work for a responsible State agency, we need to know the views of your agency regarding the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. Please include the name of a contact person in your agency.

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

June 17, 2015
Date


Sarah B. Jones
Environmental Review Officer

Initial Study
ONE OAK STREET PROJECT
(1500-1540 Market Street)

Planning Department Case No. 2009.0159E

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
ADRP	Archaeological Data Recovery Plan
AMP	Archaeological Monitoring Plan
APN	Assessor's Parcel Number
ARB	California Air Resources Board
ARD/TP	Archaeological Research Design and Treatment Plan
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
bgs	below ground surface
BMP	best management practices
BMR	below market rate
BRT	Bus Rapid Transit
CAA	Clean Air Act
CAP	Clean Air Plan
CCAA	California Clean Air Act
CDMG	California Division of Mines and Geology
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CGS	California Geological Survey
CO	carbon monoxide
CRHR	California Register of Historical Resources
CSO	combined sewer overflow
dB	decibel
dBA	A-weighted decibel
DBI	Department of Building Inspection
DPM	diesel particulate matter
DPW	Department of Public Works
EIR	Environmental Impact Report
EMS	emergency medical services
ERO	Environmental Review Officer
ESA	Environmental Site Assessment
FAR	Floor Area Ratio
FARR	Final Archaeological Resources Report
FEIR	Final EIR
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
FTA	Federal Transit Administration
GHG	greenhouse gas
gpcd	gallons per capita per day
gsf	gross square feet
HRE	Historic Resource Evaluation
HVAC	heating, ventilating, and air conditioning
IWMP	Integrated Waste Management Plan
lbs.	pounds
LEED	Leadership in Energy and Environmental Design
L _{dn}	day-night noise level

L _{eq}	steady-state energy level
L _{eq} (24)	steady-state acoustical energy level measured over a 24-hour period
MBTA	Migratory Bird Treaty Act
MERV	Minimum Efficiency Reporting Value
MLD	Most Likely Descendant
MOU	Memorandum of Understanding
MRZ-4	Mineral Resource Zone 4
MTC	Metropolitan Transportation Commission
M _w	moment magnitude
NAHC	Native American Heritage Commission
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NOP	Notice of Preparation
NO ₂	nitrogen dioxide
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NSR	New Source Review
PACM	presumed asbestos-containing material
PM	particulate matter
PM _{2.5}	fine particulate matter
PRMMP	Paleontological Resources Monitoring and Mitigation Program
ROG	reactive organic gases
ROSE	Recreation and Open Space Element
RMS	root mean square
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SFBAAB	San Francisco Bay Area Air Basin
SFFD	San Francisco Fire Department
SFHA	Special Flood Hazard Area
SFMTA	San Francisco Municipal Transportation Agency
SFPD	San Francisco Police Department
SFPUC	San Francisco Public Utilities Commission
SFRPD	San Francisco Recreation and Park Department
SFUSD	San Francisco Unified School District
SoMa	South of Market
SO ₂	sulfur dioxide
sq. ft.	square feet
SUD	Special Use District
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TBACT	Best Available Control Technology for Toxics
TEP	Transit Effectiveness Project
USEPA	United States Environmental Protection Agency
UST	underground storage tank
UWMP	Urban Water Management Plan
VdB	vibration decibels
VDECS	Verified Diesel Emission Control Strategy
WSA	Water Supply Assessment
ZOI	Zone of Influence
µg/m ³	micrograms per cubic meter

Initial Study
ONE OAK STREET PROJECT
(1500-1540 Market Street)
Planning Department Case No. 2009.0159E

A. PROJECT DESCRIPTION

The proposed project consists of the demolition of all existing structures within the project site and construction of a new 320-unit high-rise residential tower (39-story, 400-foot-tall, plus 20-foot-tall parapet). The proposed residential tower would also include ground floor commercial space and a subsurface parking garage for residents. The proposed project also includes construction of pedestrian streetscape improvements to adjacent sidewalks and streets, construction of a wind canopy within the Oak Street right-of-way to provide protection to the public from existing hazardous wind conditions to which the proposed project would contribute, and relocation of an existing Muni Metro Van Ness station entrance from its current location along Market Street to the southwest corner of the Van Ness Avenue and Oak Street intersection. An optional scheme that would retain the Muni Metro entrance at its existing location is also under consideration by the project sponsor as a variant to the proposed project.

Project location and the site, proposed project, the variant to the proposed project, and required project approvals are discussed in more detail below.

Project Location and Site

The project site is located at the northwest corner of the intersection of Market Street, Oak Street, and Van Ness Avenue in the southwestern portion of San Francisco's Downtown/Civic Center neighborhood.¹ (See **Figure 1: Project Location.**)

The project site is entirely within the following zoning districts: the C-3-G (Downtown Commercial, General) District, the Market Street Special Sign District (Planning Code Section 608.8), and the Van Ness and Market Downtown Residential Special Use District (SUD) (Planning Code Section 249.33). Most of the project site is within the 120/400-R-2 Height and Bulk District that establishes a 120-foot-tall limit for the height of the building's podium base, and a 400-foot-tall height limit for the proposed tower. The westernmost portion of the project site is within the 120-R-2 Height and Bulk District. The project site is also within the *Market and Octavia Area Plan* area.

¹ Although Market Street runs diagonally northeast to southwest, for the purposes of this EIR, it is referred to as having an east-west orientation.

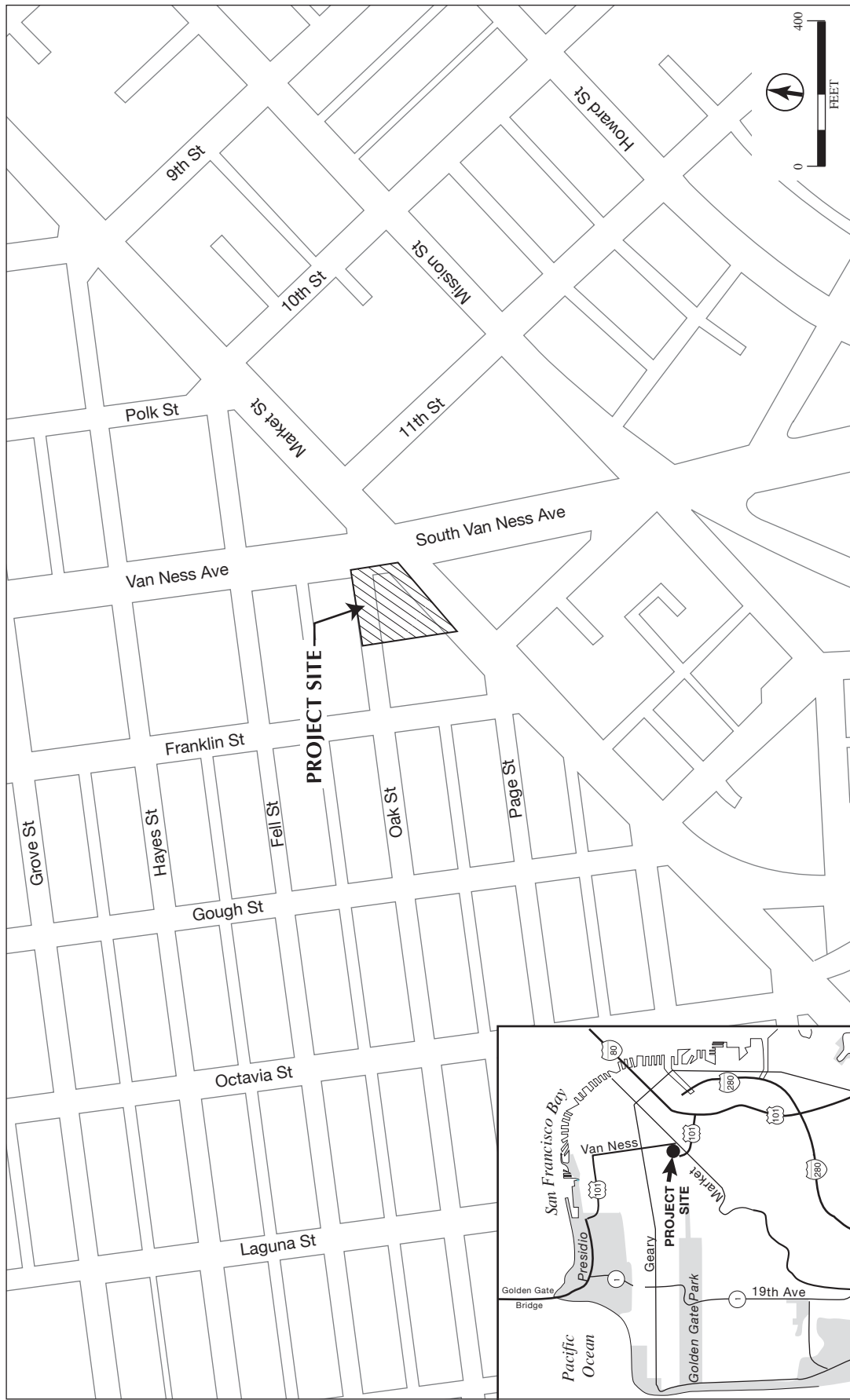


FIGURE 1: PROJECT LOCATION

SOURCE: Turnstone Consulting/SWCA

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Project Site

The project site collectively includes both a “building site” component and a “streetscape improvement area” component within surrounding public rights-of-way. These two components of the project site are described below. (See **Figure 2: Existing Project Site.**)

The Building Site

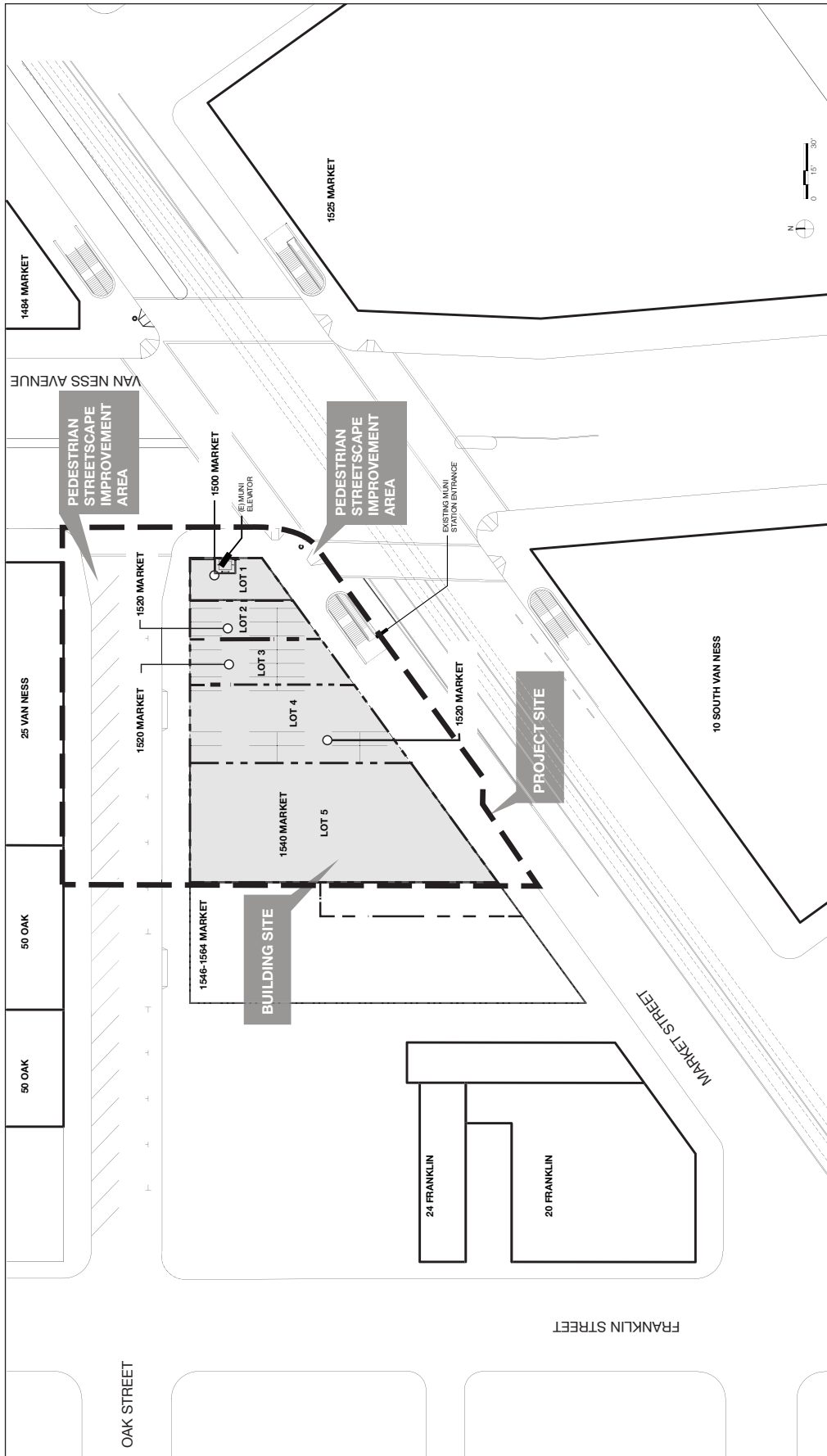
The building site component of the project site is made up of five contiguous privately owned lots within Assessor’s Block 836 (Lots 1, 2, 3, 4, and 5) that together form an 18,735-square-foot (sq. ft.) trapezoid, bounded by Oak Street to the north, Van Ness Avenue to the east, Market Street to the south, and the interior property line shared with the neighboring properties to the west. The building site measures about 177 feet along its Oak Street frontage, 39 feet along Van Ness Avenue, 218 feet along Market Street, and 167 feet along its western interior property line. The existing street address of the project parcels is referred to as 1500-1540 Market Street.

The easternmost portion of the building site, 1500 Market Street (Lot 1), is currently occupied by an existing three-story, 2,750-sq.-ft. commercial building, built in 1980. This building is partially occupied by the All Star Café in the ground floor and also contains an elevator entrance to the Van Ness Muni Metro station that opens onto Van Ness Avenue. Immediately west of the 1500 Market Street building is an existing 30-car surface parking lot (on Lots 2, 3, and 4). The parking lot is fenced along its Market Street and Oak Street frontages and is entered from Oak Street. The westernmost portion of the building site at 1540 Market Street (Lot 5) is occupied by a four-story, 48,225-sq.-ft. commercial office building, built in 1920. This building is currently partially occupied.

Streetscape Improvement Area

In addition to the building site, the project site also includes surrounding areas within and beneath the adjacent public rights-of-way (collectively, the streetscape improvement area, totaling about 22,610 sq. ft.) in which pedestrian streetscape improvements would be constructed as part of the proposed project. The proposed improvements within the streetscape improvement area, including the closure of a segment of Oak Street to regular vehicular traffic, creation of a proposed pedestrian plaza, and construction of a free-standing wind canopy, are described on pp. 15-16.

Oak Street currently runs one way, east to west, between Van Ness Avenue and Franklin Street. The proposed streetscape improvement area includes a segment of the Oak Street right-of-way (including roadway and sidewalks) along the Oak Street frontages of Lots 1-4. The portion of the



SOURCE: Build Inc.

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FIGURE 2: EXISTING PROJECT SITE

Oak Street right-of-way within the streetscape improvement area component of the project site measures about 69 feet wide north to south, from the opposing lot line along the north side of Oak Street to the north lot line of the building site. The segment of the Oak Street right-of-way within the streetscape improvement area component of the project site measures about 192 feet long east to west, from the west curb line along Van Ness Avenue to the western extent of the building site component's Oak Street frontage.

As illustrated on Figure 2, the project site's streetscape improvement area component also includes the sidewalk areas along the Van Ness Avenue and Market Street frontages of the building site component of the project site. The existing Van Ness Avenue sidewalk within the streetscape improvement area is about 15 feet wide. The existing Market Street sidewalk within the streetscape improvement area is about 25 feet wide, and narrows to 15 feet at the western end of the project site. The escalator and stairway entrance to the Van Ness Muni Metro station occupies a portion of the sidewalk, narrowing the walkway to 9 feet. The sidewalk along Market Street is paved in the characteristic red brick of Market Street. Within the streetscape improvement component of the project site, the Market Street sidewalk also includes three of the 327 historic "Path of Gold" light standards that line Market Street (San Francisco Landmark #200).

Project Characteristics

Characteristics of the proposed project (proposed uses, building form, public realm improvements, vehicular access and parking and project construction) are discussed below.

Proposed Uses

The use program for the proposed project is summarized in **Table 1: Summary of Uses Under the Proposed Project** and further described below.

Residential Use

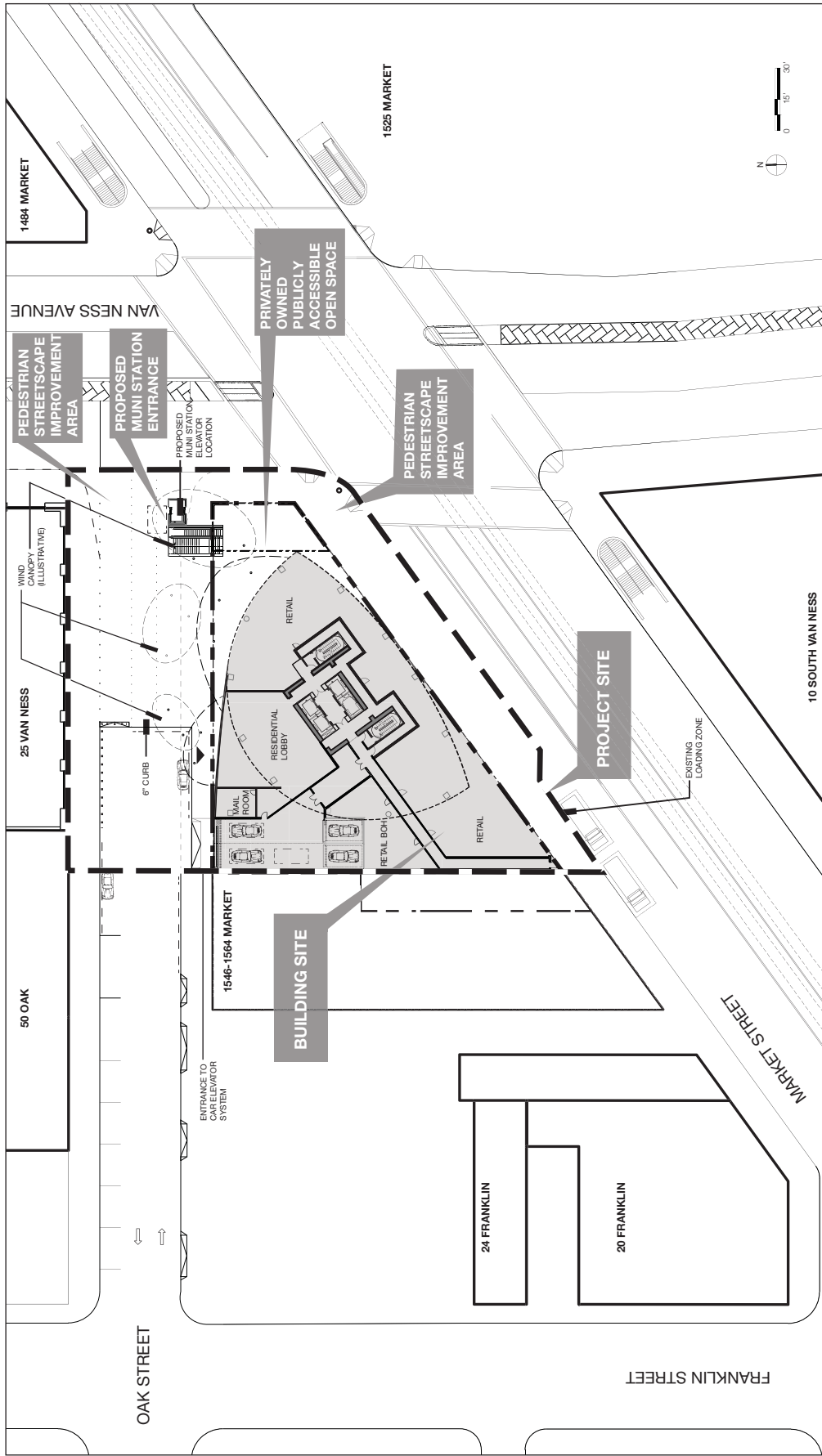
The proposed project would include a total of 320 residential units, consisting of about 29 studio units (9.1%), 163 one-bedroom units (50.9%), 120 two-bedroom units (37.5%), and 8 three-bedroom units (2.5%). Total building space allocated to residential use (including residential units, lobby, amenities, circulation, storage, systems, and services) would be about 438,950 gross square feet (gsf). Residential units and amenities would be located on floors 2-39.

Residential pedestrian access to the ground-floor entrance of the proposed building would be through lobby entrance doors located along the Oak Street right-of-way. (See **Figure 3: Proposed Ground Floor Plan**.) From the lobby, residents would access elevators to residential units at the upper floors. At the 12th floor, building residents would have access to shared indoor

Table 1: Summary of Uses Under the Proposed Project

	Proposed Project
Building Area Total (gsf)	544,420 gsf
Residential Uses	438,950 gsf
Units	350,670 gsf
Lobby	3,600 gsf
Amenity	8,073 gsf
Circulation, Storage, Systems, Services	76,607 gsf
Parking (car elevator), Loading, Bicycle Parking	84,000 gsf
Retail/Restaurant	12,970 gsf
Basement Level 1 Storage & Utility Space	8,500 gsf
Residential Units Total (Units)	320 units
Studio	29 units
One Bedroom	163 units
Two Bedroom	120 units
Three Bedroom	8 units
Parking & Loading Spaces	
Resident Parking Garage	160 spaces
Carshare	3 spaces
Freight Loading	1 space
Bicycle Spaces	336 spaces
Class 1	322 spaces
Class 2	22 spaces
Residential Open Space (sq. ft.)	
Private Residential (for 80 units)	2,880 sq. ft.
Common Residential Space (for 240 units)	11,523 sq. ft.
Podium Rooftop	9,668 sq. ft.
27 th Floor Terrace	1,225 sq. ft.
Ground-Floor Inner Courtyard	630 sq. ft.
Publicly Accessible Open Space (sq. ft.)	
Oak Plaza	11,050 sq. ft.
Adjacent Van Ness Sidewalk	2,290 sq. ft.
Adjacent Market Sidewalk	6,670 sq. ft.
Privately Owned, Publicly Accessible	2,566 sq. ft.
Muni Metro Entrance	
Ground Level	2,600 gsf
Basement Level 1	8,370 gsf
Note that the Initial Study also studies a variant that would retain the existing Muni Station entrance, as described on pp. 20-23.	

Source: Build Inc. & Turnstone Consulting/SWCA



SOURCE: Build Inc.

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FIGURE 3: PROPOSED GROUND FLOOR PLAN

amenity space totaling about 8,073 gsf. (See **Figure 4: Representative Podium/Lower Tower Plan, Floors 2-11**; **Figure 5: Floor 12 Plan**; and **Figure 6: Representative Upper Tower Plan, Floors 13-39**.) About 8,500 gsf of residential storage and utility space would be located in basement level 1.

Residential Open Space

Approximately 80 units on floors 13-39 would each have access to private open space totaling about 2,880 square feet within private terraces.

Building residents would also have access to common open space totaling about 11,523 sq. ft., consisting of the following: a 630-sq.-ft. inner courtyard, located at the second floor along the western property line; an approximately 9,668-sq.-ft. open space roof deck located atop the 11-story podium element, and accessed from the 12th floor amenity space within the tower; and an approximately 1,225-sq.-ft. double-height terrace at the 28th floor, recessed from the perimeter of the tower shaft, and facing eastward.

Retail/Restaurant Use

About 12,970 gsf would be allocated to retail/restaurant uses on the ground floor and potentially on the 2nd floor. The proposed retail/restaurant space would be accessed from a bank of doors facing northeast toward Oak Street and Van Ness Avenue, as well as from individual entrances along Market Street. The division of this space would be determined at a later date.

Proposed Building Form and Design

The proposed new building would consist of two volumetric components: an 11-story, 120-foot-tall podium element occupying the western portion of the building site component of the project site; and a 39-story tower element (400 feet tall plus a 20-foot-tall parapet, for a total height of 420 feet). The tower would rise from ground level at the eastern portion of the building site and would rise above a portion of the podium at the western portion of the building site. (See **Figure 7: Proposed South (Market Street) Elevation**; **Figure 8: Proposed North (Oak Street) Elevation**; and **Figure 9: Proposed East (Van Ness Avenue) Elevation**.) The recessed features at the 12th and 28th floors providing access to common open space would provide a visual counterpoint to the verticality of the tower.

Building floor plates at the lower levels (floors 1-11) would be generally constant in overall size and shape from one floor to the next, although particular interior floor plans would vary between floors. Building floor plates at the upper tower levels above the podium (floors 12-39) would also be generally constant in overall size and shape from one floor to the next, although the particular interior floor plans could vary between floor levels.

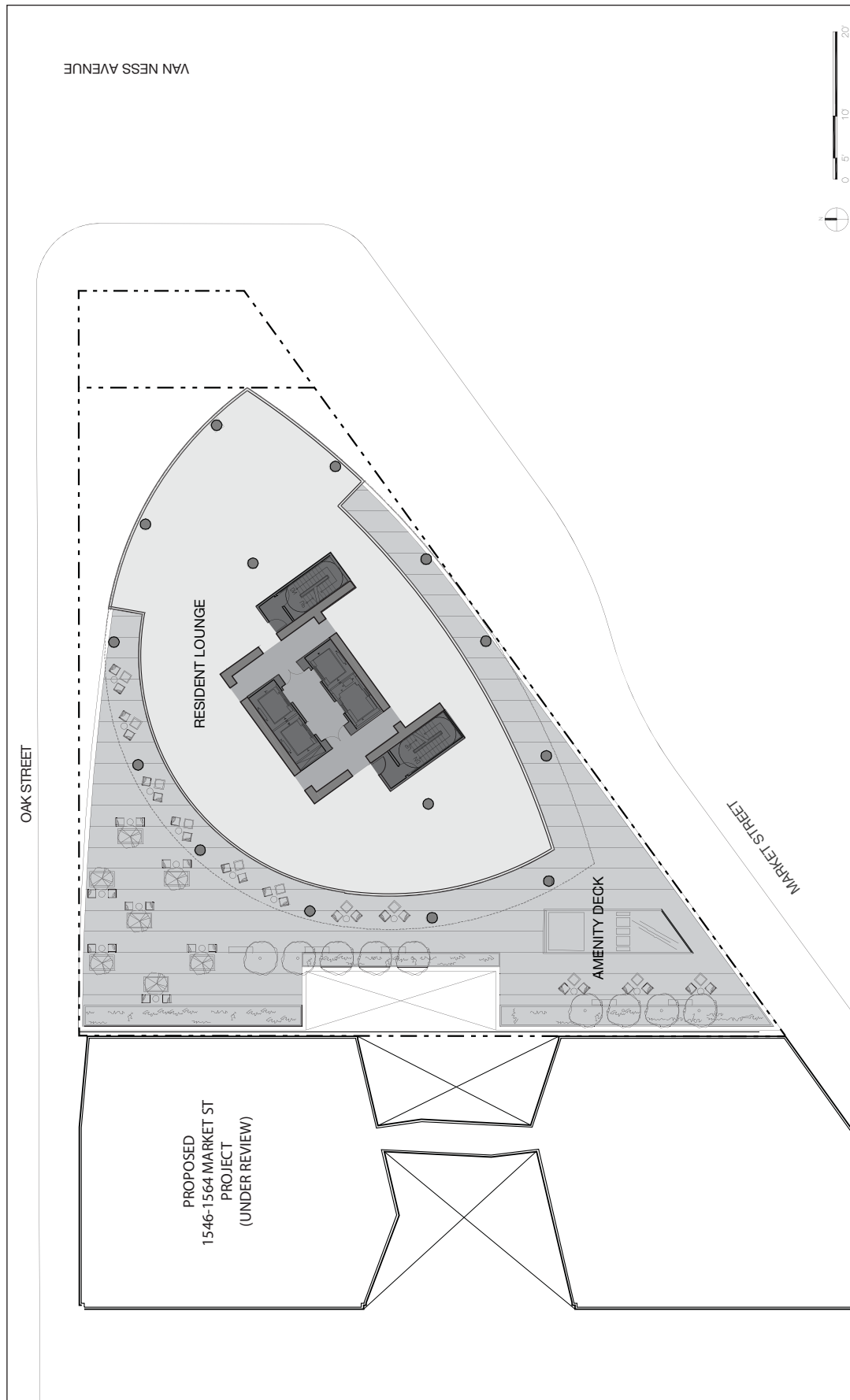


SOURCE: Build Inc.

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FIGURE 4: REPRESENTATIVE PODIUM/LOWER TOWER PLAN, FLOORS 2-11



SOURCE: Build Inc.

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FIGURE 5: FLOOR 12 PLAN

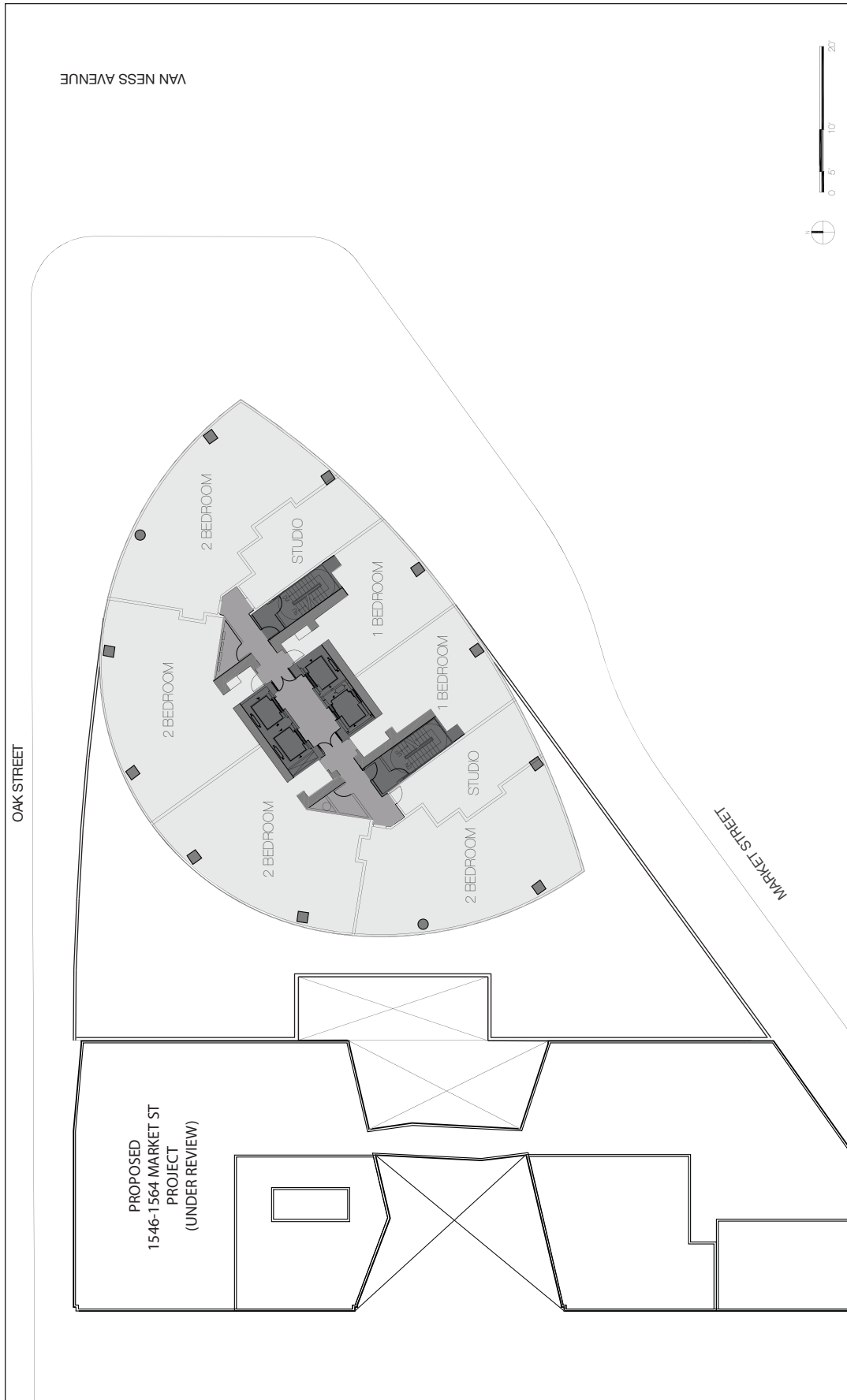
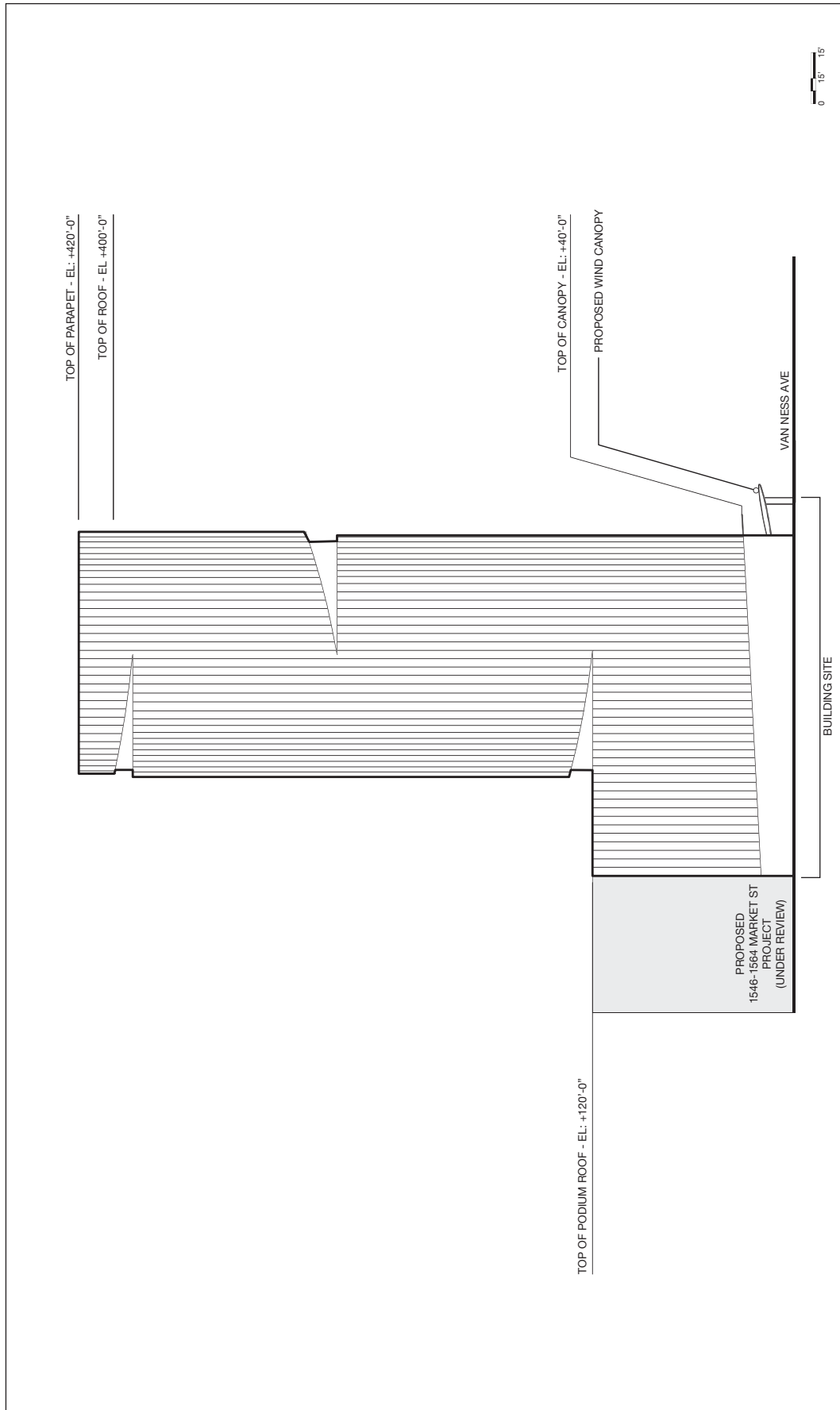


FIGURE 6: REPRESENTATIVE UPPER TOWER PLAN FLOORS 13-29

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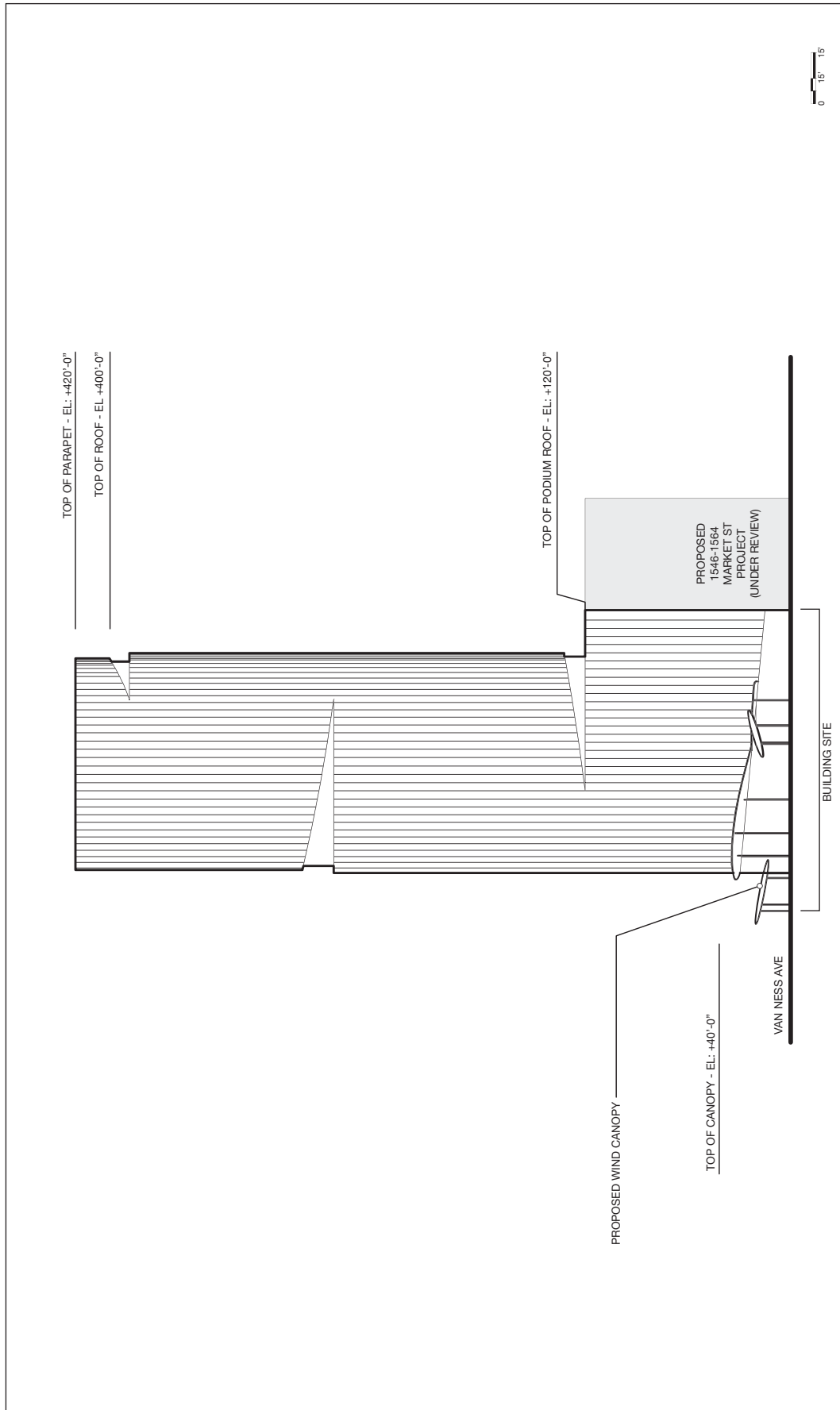


SOURCE: Build Inc.

ONE OAK PROJECT

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FIGURE 7: PROPOSED SOUTH (MARKET STREET) ELEVATION

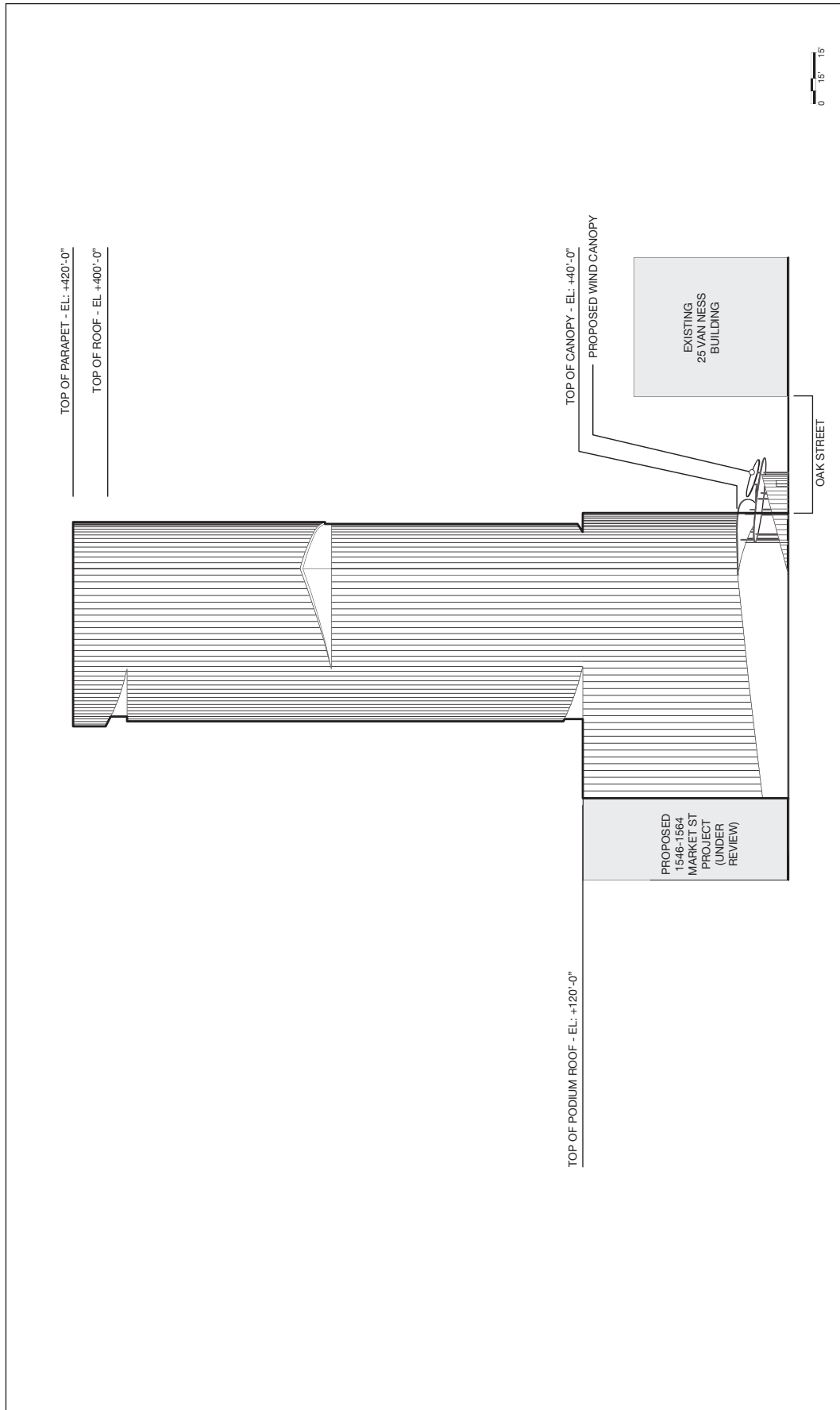


SOURCE: Build Inc.

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FIGURE 8: PROPOSED NORTH (OAK STREET) ELEVATION



SOURCE: Build Inc.

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FIGURE 9: PROPOSED EAST (VAN NESS AVENUE) ELEVATION

Proposed Public Realm Improvements

The proposed project includes public realm improvements in the streetscape improvement area intended to enhance the pedestrian environment consistent with the *Better Streets Plan* (see **Section C, Compatibility with Existing Plans and Policies**, on p. 33) and to enhance pedestrian safety and comfort by providing a wind canopy structure that would protect public areas from hazardous wind conditions, as discussed below.

The public realm improvements also include vehicular access from Oak Street to the subsurface parking facility and residential lobby drop-off for the proposed building and a vehicular turnaround at the new eastern end of Oak Street, as described on p. 17.

Note that at the time of publication of this Notice of Preparation/Initial Study (NOP/Initial Study) the proposed public realm improvements described below are conceptual and subject to ongoing review and refinement.

Proposed Oak Plaza and Wind Canopy

The easternmost end of the Oak Street right-of-way would be closed to normal vehicular traffic and would become a 11,050-sq.-ft. public pedestrian plaza (Oak Plaza) extending westward from the Van Ness Avenue curb line by about 121 feet. (The reconfiguration of the remaining segment of the Oak Street roadway to the west of the project site as part of the proposed project is discussed below on p. 19.) The Oak Street roadway within the proposed Oak Plaza would be raised to sidewalk level. The plaza would be distinguished by a distinctive paving pattern and plantings, and would provide fixed and movable seating. The paving pattern would continue to the west of the plaza to the western edge of the proposed streetscape improvement area, signifying a shared automobile-pedestrian “slow street.”

The public plaza would maintain a 26-foot-wide emergency access zone and a 14-foot-wide fire lane and 12 feet of additional clearance for emergency access to and from Van Ness Avenue. Rolled curb cuts at the east and west ends of the plaza would allow emergency vehicles to cross the plaza when necessary. The Van Ness Avenue stop bar for southbound vehicular traffic would be relocated to align with the northern edge of the fire lane so that emergency vehicles could turn onto Van Ness Avenue unimpeded.

The proposed Oak Plaza would include wind screen canopy features that would buffer ground-level wind speeds that are intended to protect public areas from existing hazardous wind conditions to which the proposed new building would contribute. The canopies would be freestanding trellis-like structures with cantilevered segments, supported by vertical columns. The grouping of canopies would measure approximately 150 feet long from east to west and 40 feet from north to south, and would be up to approximately 40 feet high. The particular configuration of canopies would be determined by subsequent wind tunnel tests, but the design

intention is to minimize the area covered by canopies while still providing the necessary protection from hazardous wind conditions. None of the proposed vertical column supports would be in the 26-foot-wide emergency access zone or the reconfigured Oak Street roadway. However, the canopies may cantilever over portions of these areas.

Adjacent Sidewalks

The proposed project includes pedestrian streetscape improvements to the Van Ness Avenue and Market Street sidewalks within the streetscape improvement area component of the project site, including landscaping and paving improvements. Streetscape improvements along Market Street would be consistent with the existing visual identity established for the rest of Market Street, including use of red pavers and retention of the three existing historic Path of Gold light standards. The Van Ness Avenue sidewalk within the streetscape improvement area would be repaved to become a visual extension of the proposed Oak Plaza.

Privately Owned, Publicly Accessible Open Space

The ground floor of the proposed project would cover about 15,726 sq. ft. of the 18,735-sq.-ft. building site component of the project site (Lots 1-5). The remaining open space at the perimeter of the ground floor, including most of Lot 1, would become privately owned, publicly accessible outdoor open space, totaling about 2,566 sq. ft. Streetscape improvements within the private building site component of the project site would be consistent with the visual identity of the proposed publicly owned Oak Plaza. The privately owned, publicly accessible outdoor open spaces within the building site would be paved to become a visual extension of the proposed Oak Plaza.

Muni Metro Station Entrance and Elevator Relocation

The proposed project would replace the existing Van Ness Muni Metro station entrance along Market Street and the existing elevator on the building site component of the project site that faces Van Ness Avenue with a new Muni Metro entrance/exit and elevator located in the southeast corner of the proposed Oak Plaza. Muni Metro users would enter the Muni Metro entrance on Oak Plaza and would take either the down escalator or the elevator to a publicly accessible hallway at basement level 1, which would connect directly into the existing adjacent Van Ness Muni Metro station located below Market Street. The existing Muni Metro entrance stairs and escalator would be removed and the existing opening in the sidewalk would be eliminated. Space for a possible station-level café is also included near the opening of the passageway to the relocated Muni Metro station entrance.

Vehicular Access, Parking, Bicycle Storage, Changes to On-Street Parking, and Loading

Note that at the time of publication of this NOP/Initial Study the proposed vehicular access, parking, loading and bicycle storage facility described below are conceptual and subject to ongoing review and refinement.

Vehicular Access to the Project Site from Oak Street

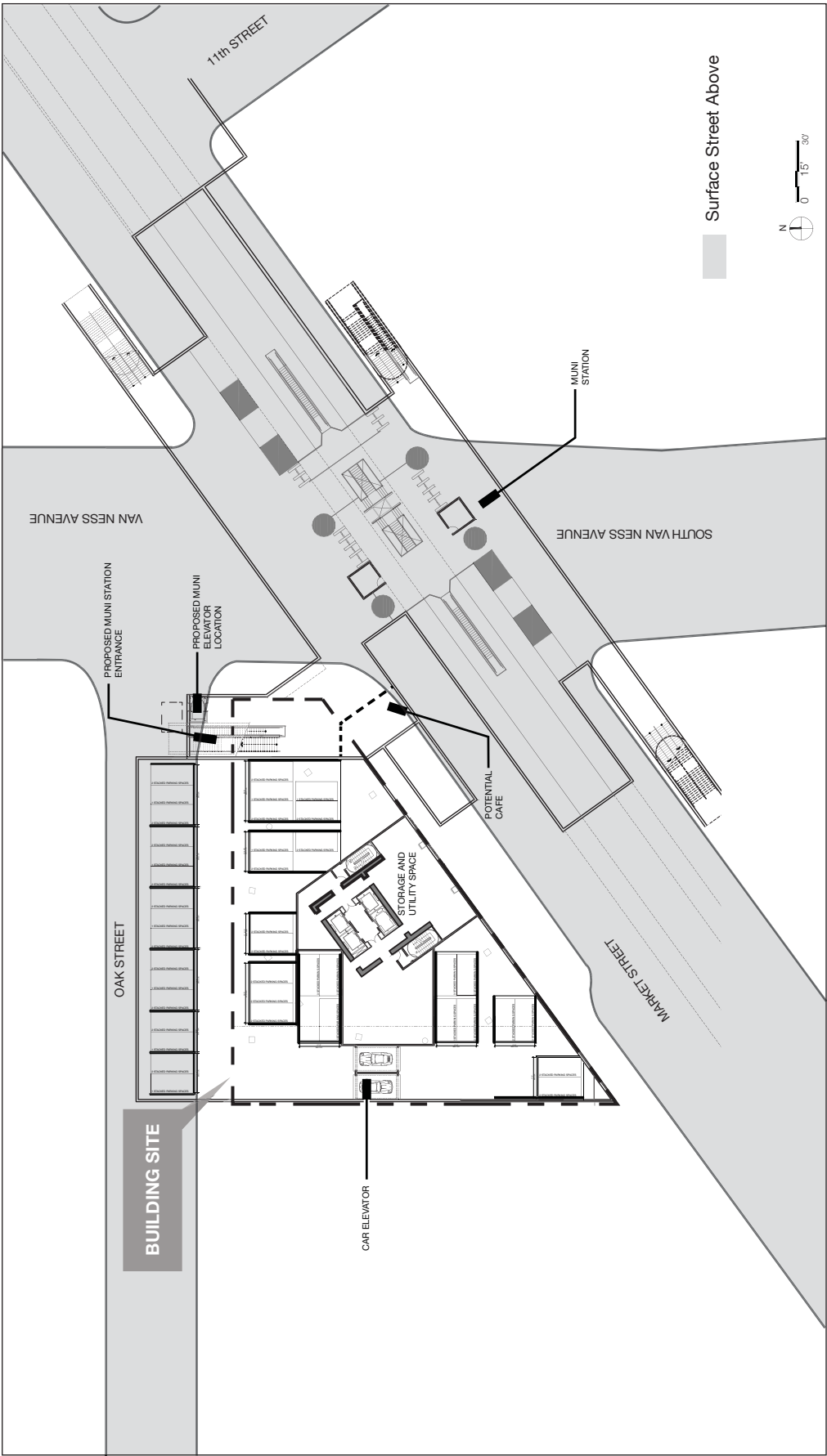
As described above, the easternmost segment of Oak Street within the streetscape improvement area component of the project site would be closed to general vehicle access (but would remain open for emergency vehicles) and converted to a public pedestrian plaza. The proposed project includes renovation of the remaining segment of the Oak Street roadway west of the project site to Franklin Street. This segment would be restriped and reconfigured to become a two-way street. Access to all existing driveways to other properties along this segment of Oak Street would be maintained. Vehicles would enter and exit this segment of Oak Street at Franklin Street. A turnaround would be provided at the proposed new eastern terminus of Oak Street immediately west of the proposed Oak Plaza.

The proposed project includes creation of a curbside white zone passenger drop-off area near the residential lobby entrance doors of the proposed project along the south side of Oak Street at Oak Street's new eastern terminus, as well as a curbside red zone area near the lobby entrance along the north side of Oak Street at the new eastern terminus to accommodate the vehicle turnaround area.

Parking Garage

The proposed project would contain 160 accessory parking spaces for building residents in an 84,000-gsf, three-level subsurface garage. Vehicles would access the parking garage from Oak Street at the northwest corner of the building site, as shown on Figure 3 on p. 7, and would reach the subsurface parking levels by two car elevators. The proposed three-level subsurface garage would extend laterally approximately 43 feet northward beneath the proposed Oak Plaza within the streetscape improvement area component of the project site, provided that the project sponsor and the City agree to the purchase and sale of an easement or fee interest in that underground portion of the public right-of-way, and that the underground portion of the right-of-way is vacated by the City. (See **Figure 10: Proposed Basement Level 1 Plan.**) If the vacation and purchase of that underground portion of the Oak Street right-of-way does not occur for any reason, the proposed project would include a smaller garage that extends to the existing property line.

The proposed parking garage would also include three Carshare spaces for use by residents and the general public. They would be accessed through the same car-elevator system that residents would use to access their vehicles.



SOURCE: Build Inc.

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FIGURE 10: PROPOSED BASEMENT PLAN

Bicycle Storage

The proposed project would include 322 Class 1 bicycle parking spaces (protected) for building residents. The proposed project would also include 22 at-grade Class 2 bicycle parking spaces for visitors, guests, and patrons. The bicycle parking would be accessed through the freight/loading entrance on Market Street, down the freight elevator adjacent to the entrance, and through the corridor in the below-grade level. The 22 Class 2 bicycle spaces would be located on sidewalks on Oak and Market Streets, subject to SFMTA approval.

Proposed On-Street Parking Along Oak Street

Outside and west of the project site, along the south side of Oak Street, all existing on-street parking spaces (10 parallel parking spaces and 3 motorcycle spaces) would be eliminated under the proposed project to accommodate the proposed Oak Plaza and a new eastbound traffic lane within the remainder of this segment of Oak Street.

Along the north side of Oak Street, existing on-street parking spaces (29 diagonal parking spaces and 4 motorcycle spaces) would also be eliminated under the proposed project.

The remaining segment of Oak Street along the north side would be reconfigured to provide some replacement on-street parking spaces (five parallel parking spaces) and parallel loading spaces described below.

Proposed Loading

The proposed project would not include the three on-site truck loading spaces that would be required under the San Francisco Planning Code. Instead, the proposed project would use an existing recessed commercial loading bay on Market Street adjacent to the property for freight loading. Freight deliveries would reach the upper floors via a service elevator accessible from a service corridor located at the southwestern corner of the building site.

The proposed project would also include a new yellow zone loading spaces (three parallel) on the north side of Oak Street in front of the Conservatory of Music at 50 Oak Street that would replace existing on-street parking spaces and motorcycle spaces that would be eliminated, as described above.

Small package deliveries would use the white zone area near the proposed project's residential lobby entrance doors along the south side of Oak Street near Oak Street's new eastern terminus.

Project Construction

Project construction would take about 32 months from start of work to finish, as discussed below.

Foundation and Excavation

The type of foundation for the proposed One Oak Street building is anticipated to be a full-site mat foundation varying in thickness from about 12 feet at the elevator core to about 8 feet outside of the elevator core. Some over-excavation may be needed in order to stiffen the soil below the mat down to the Colma sand layer (approximately 35-40 feet below the ground surface).

The existing buildings and parking lot on the building site component of the project site would be demolished as part of the proposed project. As noted above, the proposed three-level subsurface garage would extend laterally about 43 northward beneath the proposed Oak Plaza within the streetscape improvement area component of the project site. Excavation of the entire project site would occur to a depth of up to about 50 feet including space for the mat foundation. Approximately 30,000 cubic yards of demolition debris and 50,000 cubic yards of soil would be excavated and exported from the project site.

Construction Phasing and Duration

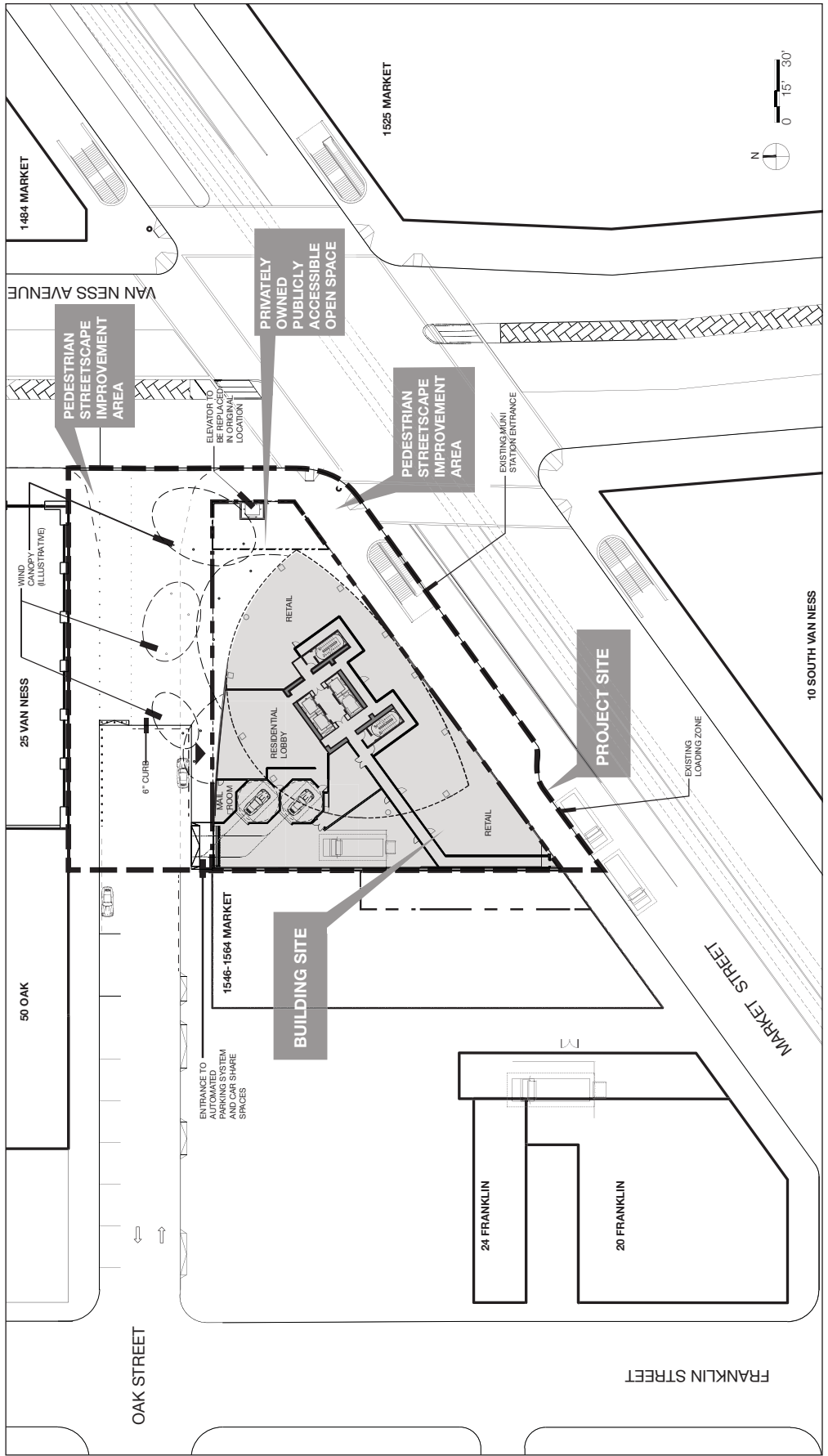
Project construction would take about 32 months from start of work to finish and would occur in several overlapping phases. Site demolition would take about 2 months. Excavation and shoring would take about 3 months. Foundation work and below-grade construction would take about 3 months. Base building construction would take about 14 months. Exterior finishing would take about 14 months. Interior finishing would take about 21 months. Pedestrian streetscape improvements would take about 2 months.

Existing Muni Entrance Variant

An optional scheme, the Existing Muni Entrance Variant, is also under consideration by the project sponsor. (See **Figure 11: Existing Muni Entrance Variant, Ground Floor Plan**, and **Figure 12: Existing Muni Entrance Variant, Basement Level 1 Plan**.) In most respects, this variant would be substantially the same as the proposed project. However, under the variant, the existing Van Ness Muni Metro station stair/escalator entrance within the Market Street sidewalk would be left in place and upgraded, and the existing station elevator would be replaced with a new station elevator in a similar location. Construction excavation and duration would be substantially the same as that described for the proposed project on p. 19. Because the stairway/escalator entry would remain in place within the Market Street sidewalk, Oak Plaza would be 13,650 sq. ft. under this variant, compared to 11,050 sq. ft. under the proposed project. Under this variant, parking and loading would also differ from that of the proposed project, as described below.

Parking under Existing Muni Entrance Variant

Like the proposed project, the variant would contain 160 accessory parking spaces for building residents that would be accessed from Oak Street at the northwest corner of the building site.

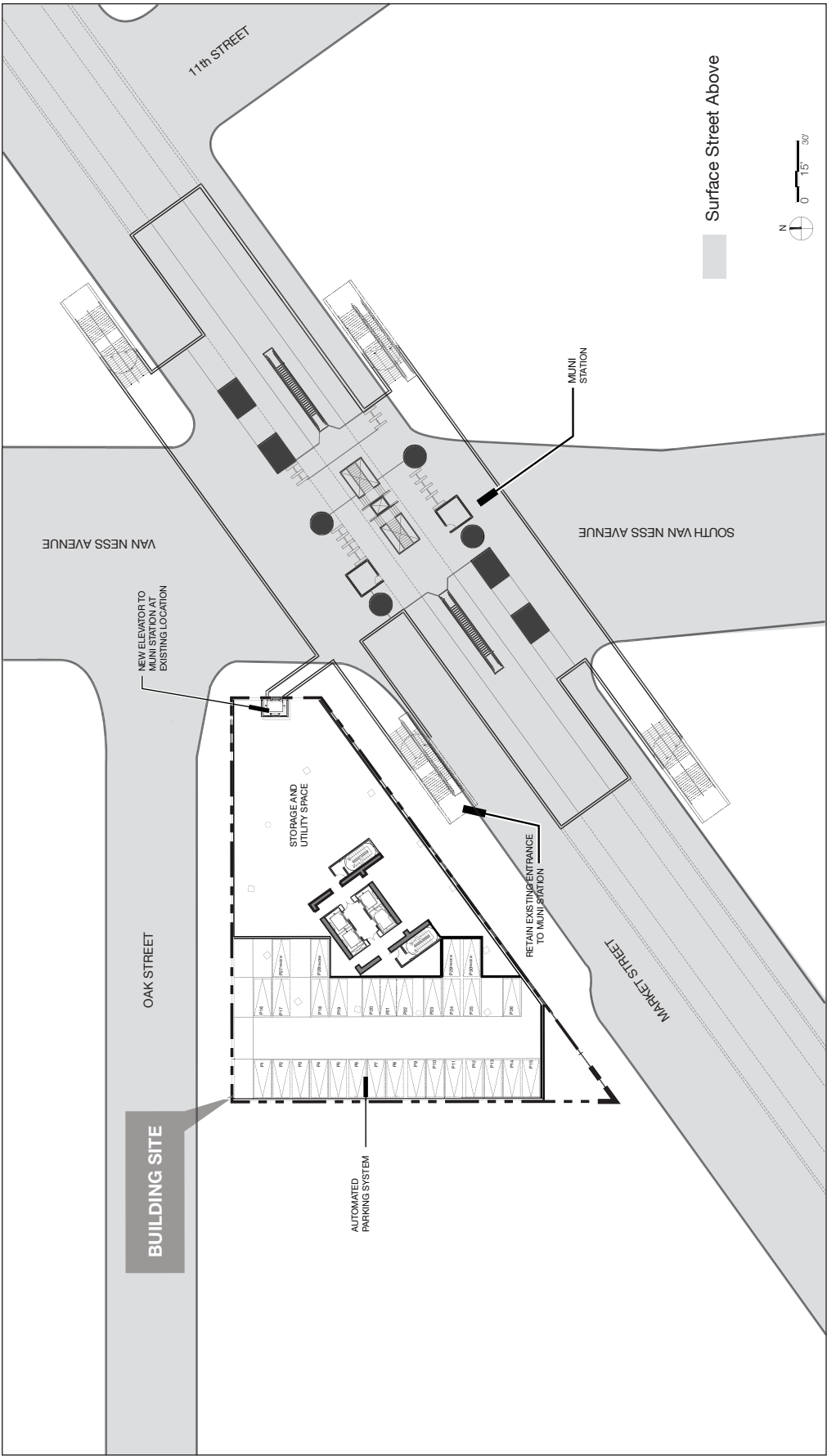


SOURCE: Build Inc.

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FIGURE 11: EXISTING MUNI ENTRANCE VARIANT, GROUND FLOOR PLAN



SOURCE: Build Inc.

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FIGURE 12: EXISTING MUNI ENTRANCE VARIANT, BASEMENT PLAN

However, unlike the proposed project, which would include an 84,000-gsf subsurface parking garage in three basement levels beneath the building site and a portion of Oak Plaza within the streetscape improvement area component of the project site, the variant would provide the parking spaces in a 39,750-gsf, automated, self-serve parking facility located below grade at the westernmost portion of the building site. Alternatively, the parking may be provided by valet with or without the use of stackers. Vehicles would enter the parking facility from Oak Street at the northwest corner of the building site.

The proposed automated parking facility would also include three Carshare spaces for use by residents and the general public. They would be accessed through the same secure system that residents would use to store and retrieve their vehicles. Alternatively, the Carshare spaces would be accessed by valet.

Loading under Existing Muni Entrance Variant

Unlike the proposed project, which would provide loading for the building only at the existing recessed commercial loading bay on Market Street adjacent to the property, the project variant would also include an off-street, on-site freight loading space that would be accessed from Oak Street through the same ground-floor vehicular entrance used for accessing the automated parking facility. Freight deliveries would reach the upper floors via a service elevator accessible through a short service corridor connected to the loading dock. Across from the freight-loading entrance, an area along the north side of Oak Street (50 feet long) would be kept clear, giving trucks room to maneuver into and out of the loading dock.

As with the proposed project, the existing recessed commercial loading bay on Market Street adjacent to the property would also be used for freight loading. Freight deliveries from Market Street would reach the upper floors via a service elevator accessible from a service corridor located at the southwestern corner of the proposed project.

Small package deliveries would use the white zone area near the proposed project's residential lobby entrance doors along the south side of Oak Street near Oak Street's new eastern terminus.

Required Approvals

The proposed project approvals include, but may not be limited to, the following decisions from these City agencies:

Recreation and Park Commission

- Joint determination with the Planning Commission that the project would have no adverse impact on Patricia's Green, Page and Laguna Mini Park, Koshland Park, and Hayes Valley Playground, or other parks subject to Planning Code Section 295.

Planning Commission

- Initiation Hearing of the *General Plan* Amendment to revise Map 3 of the *Market and Octavia Area Plan* to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Certification of the Final EIR and adoption of CEQA Findings and adoption of a Mitigation Monitoring and Reporting Program.
- *General Plan* referral to allow construction in the Oak Street right-of-way, vacation of Oak Street, and construction of the proposed wind canopy.
- Approval of the project under Planning Code Section 309, including possible exceptions with regard to ground-level winds², off-street freight loading spaces,³ rear yard⁴, and dwelling unit exposure⁵.
- Approval of an In-kind Improvements Agreement under Planning Code Section 424.3(c) for community improvements for the neighborhood infrastructure portion of the Van Ness and Market Downtown Residential Special Use District Affordable Housing and Neighborhood Infrastructure Fee.
- Approval of a Conditional Use authorization under Planning Code Section 303 for increased on-site parking capacity.
- Recommendation of an ordinance amending the Zoning Map to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Recommendation of a *General Plan* amendment to revise Map 3 of the *Market and Octavia Area Plan* to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Joint determination with the Recreation and Park Commission under Planning Code Section 295 that net new project shadow being cast on Patricia's Green, or other parks subject to Section 295, would not adversely affect the use of the park.

Board of Supervisors

- Approval of an ordinance amending the Zoning Map to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Approval of *General Plan* amendment to revise Map 3 of the *Market and Octavia Area Plan* to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Approval of an underground easement under a portion of the Oak Street right-of-way to facilitate construction of the parking garage.
- Approval of a license to operate the Plaza on Oak Street, pursuant to SF Administrative Code Section 94.3.

² Planning Code Section 148.

³ Planning Code Section 152.1.

⁴ Planning Code Section 134.

⁵ Planning Code Section 140.

Department of Building Inspection (DBI)

- Issuance of demolition, site, and associated building permits (site permit addenda).

Department of Public Works (DPW)

- Approval of changes in public rights-of-way and of conversion of a portion of Oak Street into a publicly owned pedestrian plaza. This approval may proceed under the City's newly adopted Plaza Program, San Francisco Administrative Code Sections 94.1-94.7.
- Approval of the purchase of a permanent underground easement under a portion of Oak Street for underground parking.
- Approval of a Plaza Encroachment Permit pursuant to Section 792 of the Public Works Code.
- Permit for removal and planting of street trees.
- Approval of subdivision map and condominium map applications.
- Approval of a lot line adjustment.
- Approval of a Street Space Permit from the Bureau of Street Use and Mapping for use of a public street space during project construction (including construction of the proposed wind canopy and Oak Plaza improvements).
- Approval of Memorandum of Understanding (MOU) regarding the maintenance and availability of a curbside loading zone on Market Street.

Municipal Transportation Agency (SFMTA)

- Approval of the Oak Plaza conversion.
- Approval of a Special Traffic Permit from the Department of Parking and Traffic for use of a public street space during project construction.
- Approval of foundation, shoring, and dewatering systems as they relate to Muni Zone-of-Influence
- Approval of the relocation of the Muni Metro station entrance, including the location of a new replacement elevator.
- Approval of Americans with Disabilities Act (ADA) and Title 24 access solution during temporary closure of station elevator.

Bay Area Rapid Transit (BART)

- Approval of foundation, shoring, and dewatering systems as they relate to BART Zone-of-Influence.
- Approval of the relocation of the Muni Metro station entrance, including the location of a new replacement elevator.
- Approval of ADA and Title 24 access solution during temporary closure of station elevator.

San Francisco Art Commission

- Approval of proposed Oak Plaza design and wind canopy by the Design Review Committee.

B. PROJECT SETTING

This discussion of project setting is presented in the Initial Study to orient the reader to the surrounding context of the project site. The project site occupies a central and prominent position at the intersection of Market Street and Van Ness Avenue, two of the City's widest and most recognizable thoroughfares.

Land Use Character of the Project Vicinity

The project vicinity is an urban, mixed-use area that includes a diverse range of residential, commercial, institutional, office, and light industrial uses. Existing discernible land use patterns are generally evident. Offices are located along Market Street and Van Ness Avenue, and government uses are located to the north in the Civic Center. The area is currently in transition, with residential uses being built along Market Street and Van Ness Avenue in recent years.

The project site is located within the southwestern edge of downtown in the C-3-G (Downtown General Commercial, General) District, characterized by a variety of retail, office, hotel, entertainment, and institutional uses, and high-density residential. West of the project block, west of Franklin Street, is an NC-3 Moderate Scale Neighborhood Commercial District comprised of a diverse mix of residential, commercial, and institutional uses. South of Market Street, and west of 12th Street, is the C-M Heavy Commercial District, which includes a mix of office and heavy commercial uses such as business services and light manufacturing.

The project site is located near the convergence and transition between different street grid orientations. The North of Market street grid forms a pattern of major through streets running north-south and east-west with typical rectangular blocks measuring about 275 feet north-south by 412 feet east-west. Market Street runs diagonally northeast to southwest. As a result, North of Market streets converge with Market Street obliquely, forming irregularly shaped blocks and lots along the north side of Market Street (like the project block), some with triangular "flatiron" buildings, and irregularly shaped plazas.

The South of Market street grid east of the project site aligns with Market Street, forming a pattern of major through-streets running northeast-southwest and northwest-southeast that are parallel or perpendicular to the alignment of Market Street. South of Market blocks along the south side of Market Street present their long sides to Market Street, forming a regular streetwall along the south side of Market Street east of the project site.

West of the project site and south of Market Street, the South of Market street grid transitions to a Mission District street pattern, as South of Market streets running parallel to Market Street (like Mission Street) veer southward away from Market Street to form a grid of north-south and east-west streets. As with North of Market streets, Mission District streets west of the project site

converge with Market Street obliquely, forming irregularly shaped triangular blocks and lots along the south side of Market Street.

Adjacent Uses

The project site is located near the convergence of several San Francisco neighborhoods: the Hayes Valley neighborhood to the west, the Van Ness corridor to the north, Civic Center/Midmarket areas to the east, South of Market to the southeast, and the Mission District to the southwest. Within the vicinity of the project site, building height, scale, massing, architectural character, and age do not conform to any strongly discernible overall pattern. Nearby surrounding development is described in more detail below.⁶

To the West

The adjacent building immediately to the west of the project site along Market Street is 1550 Market Street, a three-story office over a ground-floor retail building built in 1912.

Further west along Market Street is 1554 Market Street, a one-story retail building built in 1907. At the rear of the same lot as 1554 Market Street is 55 Oak Street, a one-story automotive repair building built in 1929.

The southwestern corner of the project block is occupied by a six-story apartment building over ground-floor retail at 1582 Market Street, built in 1917. The northwestern corner of the project block is occupied by a surface parking lot.

To the North

To the northwest of the project site along the north side of Oak Street is the Conservatory of Music at 50 Oak Street, a five-story Neoclassical building built in 1914. Immediately to the west of that building is a modern addition to 50 Oak Street. The Conservatory building houses studio, classroom, office, and performance space.

Immediately to the north of the project site is 25 Van Ness Avenue, an eight-story Renaissance Revival building built in 1910. The building currently has ground-floor retail, and offices on the upper floors. The building also houses the San Francisco New Conservatory Theater. Further north along the west side of Van Ness Avenue is 77 Van Ness Avenue, an eight-story residential building with ground-floor retail, built in 2008.

⁶ This Initial Study describes building heights as a measurement in feet above ground surface and/or as a number of building stories. For the purposes of this Initial Study, one residential story is equivalent to about 10-12 feet, although ground-floor stories are often higher (up to 15 feet).

To the East

Immediately to the east of the project site is Van Ness Avenue, an eight-lane, north-south roadway with three travel lanes and parking in each direction, separated by a center median.

Along the east side of Van Ness Avenue, across from the project site to the northeast, is 30 Van Ness Avenue (also known as 1484-1496 Market Street), a five-story office over ground-floor retail building. The building was originally built in 1908, but its façade was extensively remodeled around 1960.

To the South

Immediately to the south of the project site is Market Street, a roadway that includes two travel lanes and a bicycle lane in each direction. Historic streetcars use the center-running tracks and transit stops within the Market Street roadway.

On the south side of Market Street at the southeast corner of Market Street and 11th Street (due east of the project site) is 1455 Market Street, a 22-story office building over ground-floor commercial, built in 1979. This building terminates eastward views along Oak Street.

At the southeast corner of Market Street and Van Ness Avenue, diagonally across the intersection of Market Street and Van Ness Avenue, is 1 South Van Ness Avenue, an eight-story office building over ground-floor commercial (Bank of America), built in 1959.

At the southwest corner of Market Street, across Market Street from the project site, is 10 South Van Ness Avenue, a one-story car dealership.

C. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	<i>Applicable</i>	<i>Not Applicable</i>
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from Regional, State, or Federal Agencies.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

This section discusses (1) variances, special authorizations, and proposed changes to the Planning Code or Zoning Map, (2) conflicts with adopted plans and goals of the City or region, and (3) if applicable, the approvals or permits required from various federal, state, and local agencies necessary for the construction and operation of the proposed project.

Conflicts with adopted plans, policies, or regulations do not, in and of themselves, indicate a significant environmental effect within the meaning of CEQA. To the extent that physical environmental impacts may result from such conflicts, these impacts are analyzed under the relevant environmental topic in the Initial Study (Section E, Evaluation of Environmental Effects) or in the EIR. The consistency of the proposed project with plans, policies, and regulations that do not relate to physical environmental issues will be considered by City decision-makers when they determine whether to approve, modify, or disapprove the proposed project.

San Francisco General Plan

The *San Francisco General Plan (General Plan)* is the embodiment of the City's vision for the future of San Francisco. It is comprised of a series of ten elements, each of which deals with a particular topic that applies citywide: Air Quality; Arts; Commerce and Industry; Community Facilities; Community Safety; Environmental Protection; Housing; Recreation and Open Space; Transportation; and Urban Design.

The *General Plan* also includes area plans, each of which focuses on a particular area of the City. The project site is in the area covered by the *Market and Octavia Area Plan*, which establishes objectives and policies that guide development in the Market and Octavia neighborhoods. The *General Plan* also includes a Land Use Index, which consolidates the different land use policies contained in all of the different elements of the *General Plan*, including area plans.

The proposed project would not obviously or substantially conflict with the objectives and policies of the *General Plan* except as noted below. The proposed project, which would be 400 feet tall, would potentially conflict with the following policies of the *General Plan*:

- Recreation and Open Space Element
 - Policy 2.3: Preserve sunlight in public open spaces.

- Urban Design Element
 - Policy 3.4: Promote building forms that will respect and improve the integrity of open spaces and other public areas.

The physical environmental impacts that could result from these potential conflicts will be discussed in the EIR. The consistency of the proposed project with *General Plan* objectives and policies that do not relate to physical environmental issues will be considered by City decision-makers as part of their deliberations on whether to approve or disapprove the proposed project, and any potential conflicts identified as part of that process would not alter the physical environmental effects of the proposed project.

San Francisco Planning Code and Zoning Maps

The San Francisco Planning Code (Planning Code), which incorporates by reference the City’s Zoning Maps, governs permitted uses, densities, and the configuration of buildings within San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless the proposed project complies with the Planning Code, an exception or variance is granted pursuant to the provisions of the Planning Code, or legislative amendments to the Planning Code are included and adopted as part of the proposed project.

Land Use Controls

The building site component of the project site is in the C-3-G District. Pursuant to Planning Code Section 210.3, the C-3-G District “is composed of a variety of uses: retail, offices, hotels, entertainment, clubs and institutions, and high-density residential. Many of these uses have a citywide or regional function, although the intensity of development is lower here than in the downtown core area. As in the case of other downtown districts, no off-street parking is required for individual commercial buildings. In the vicinity of Market Street, the configuration of this district reflects easy accessibility by rapid transit.”

The building site component of the project site is in the Van Ness and Market Downtown Residential Special Use District. Pursuant to Planning Code Section 249.33, this district is intended to be a transit-oriented, high-density, mixed-use neighborhood with a significant residential presence.

Planning Code Sections 215 through 227 regulate the types of land uses that are principally permitted, conditionally permitted, or not permitted in the C-3-G District. Other Planning Code requirements that are applicable to the proposed project include, but are not limited to, the provisions of:

- Section 124: Floor Area Ratio
- Section 132.1: Setbacks and Streetwall Articulation in C-3 Districts
- Section 134: Rear Yards

- Section 135: Usable Open Space
- Section 138: Public Open Space in C-3 Districts
- Section 138.1: Streetscape and Pedestrian Improvements
- Section 140: Dwelling Unit Exposure
- Section 145.1: Street Frontages
- Section 146: Sunlight Access to Public Sidewalks in C-3 Districts
- Section 147: Reduction of Shadows on Certain Public and Publicly Accessible Open Spaces in C-3 Districts
- Section 148: Reduction of Ground-Level Wind Currents in C-3 Districts
- Section 151.1: Permitted Off-Street Parking Spaces in C-3 Districts
- Section 152.1: Required Off-Street Freight Loading Spaces in C-3 Districts
- Section 155.2: Bicycle Parking
- Section 166: Car Sharing
- Section 249.33: Van Ness and Market Downtown Residential Special Use District
- Section 295: Height Restrictions on Structures Shadowing Property Under the Jurisdiction of the Recreation and Park Commission
- Section 309: Permit Review in C-3 Districts
- Section 411: Transit Impact Development Fee
- Section 415: Housing Requirements for Residential and Live/Work Development Projects
- Section 424: Van Ness and Market Affordable Housing and Neighborhood Infrastructure Fee and Program
- Section 429: Public Art Requirements

As discussed in **Section A, Project Description**, pp. 23-25, the list of required project approvals includes exceptions and variances from the Planning Code requirements related to rear yard (Planning Code Section 134), dwelling unit exposure (Planning Code Section 140), off-street freight loading (Planning Code Section 152.1), and wind (pedestrian comfort) (Planning Code Section 148),

Height and Bulk Controls

As shown on Zoning Map Sheet HT07, most of the building site component of the project site (Block 0836, Lots 1 through 4 plus the eastern half of Lot 5) is in a 120/400-R-2 Height and Bulk District, and the remainder of the building site (the western half of Block 0836, Lot 5) is in a 120-R-2 Height and Bulk District. The 120- and 400-foot height limits permit maximum building heights of 120 and 400 feet, respectively. The proposed project tower would comply with the height limit for most of the building site, but would require the adoption of legislative

amendments to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to the western half of Lot 5 on Assessor's Block 0836.

Bulk controls reduce the size of a building's floorplates as the building increases in height. Pursuant to Planning Code Section 270(f), the bulk controls in an "R-2" Bulk District are as follows:

- There are no bulk controls below a building height of 120 feet.
- Beginning at a building height of 120 feet, a building with an overall height between 351 and 550 feet cannot exceed the following bulk controls: a maximum plan length of 115 feet, a maximum diagonal dimension of 145 feet, and a maximum average floor area of 10,000 gsf.

The proposed project would not exceed existing bulk controls.

Floor Area Ratio

The building site component of the project site is subject to a 9:1 Floor Area Ratio (FAR)⁷ limit under Planning Code Section 124 and Section 249.33(b)(6)(A). The proposed project would exceed this limit. Planning Code Section 249.33, applicable to the Van Ness Downtown Residential Special Use District, states that the maximum FAR may be exceeded through compliance with Planning Code Section 424, the Van Ness and Market Inclusionary Affordable Housing Fee and Van Ness and Market Neighborhood Infrastructure Fee, through payment of fees and/or direct provision of affordable housing or public improvements. The proposed project would be required to comply with Planning Code Section 424 through payment of fees or direct provision of public open space and infrastructure improvements, or some combination thereof.

The Accountable Planning Initiative

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the Planning Code and established eight Priority Policies. These policies are (1) preservation and enhancement of neighborhood-serving retail uses and future opportunities for resident employment in and ownership of such businesses; (2) conservation and protection of existing housing and neighborhood character to preserve the cultural and economic diversity of neighborhoods; (3) preservation and enhancement of affordable housing; (4) discouragement of commuter automobiles that impede Muni transit service or that overburden streets or neighborhood parking; (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; (6) maximization of earthquake preparedness; (7) preservation of

⁷ Floor Area Ratio is the ratio of a building's total gross floor area, as defined in Planning Code Section 102.9 (which identifies certain types of spaces within a building that are not included in a building's gross floor area) to the area of the lot or lots that the building occupies.

landmarks and historic buildings; and (8) protection of parks and open space and their access to sunlight and vistas.

Implementation of the proposed project potentially conflicts with Priority Policy No. 8, which calls for the protection of parks and open space and their access to sunlight. The physical environmental impacts that could result from this potential conflict will be discussed in the EIR.

Prior to issuing a permit for any project which requires an Initial Study under CEQA, prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of consistency with the *General Plan*, the City is required to find that the proposed project or legislation would be consistent with the Priority Policies. Staff reports and approval motions prepared for the decision-makers would include a comprehensive project analysis and findings regarding the consistency of the proposed project with the Priority Policies.

Other Local Plans and Policies

In addition to the *General Plan*, the Planning Code and Zoning Maps, and the Accountable Planning Initiative, other local plans and policies that are relevant to the proposed project are discussed below.

- The *San Francisco Sustainability Plan* is a blueprint for achieving long-term environmental sustainability by addressing specific environmental issues including, but not limited to, air quality, climate change, energy, ozone depletion, and transportation. The goal of the *San Francisco Sustainability Plan* is to enable the people of San Francisco to meet their present needs without sacrificing the ability of future generations to meet their own needs.
- The *Climate Action Plan for San Francisco: Local Actions to Reduce Greenhouse Emissions* is a local action plan that examines the causes of global climate change and the human activities that contribute to global warming, provides projections of climate change impacts on California and San Francisco based on recent scientific reports, presents estimates of San Francisco's baseline greenhouse gas emissions inventory and reduction targets, and describes recommended actions for reducing the City's greenhouse gas emissions.
- The *Transit First Policy* (City Charter, Section 8A.115) is a set of principles that underscore the City's commitment to give priority to traveling by transit, bicycle, and on foot over traveling by private automobile. These principles are embodied in the objectives and policies of the Transportation Element of the *General Plan*. All City boards, commissions, and departments are required by law to implement Transit First principles in conducting the City's affairs.
- The *San Francisco Bicycle Plan* is a citywide bicycle transportation plan that identifies short-term, long-term, and other minor improvements to San Francisco's bicycle route network. The overall goal of the *San Francisco Bicycle Plan* is to make bicycling an integral part of daily life in San Francisco.
- The *San Francisco Better Streets Plan* consists of illustrative typologies, standards and guidelines for the design of San Francisco's pedestrian environment, with the central focus of enhancing the livability of the City's streets.

- The *Better Market Street Project* is a plan that envisions a new Market Street that is more beautiful and green, has enlivened public plazas and sidewalks full of cafés, showcases public art and performances, provides dedicated bicycle facilities, and delivers efficient and reliable transit. The goal of the Better Market Street Project is to revitalize and reestablish Market Street as the cultural, civic, and economic center of San Francisco.

The proposed project has been reviewed against these local plans and policies and would not obviously or substantially conflict with these plans or policies.

Regional Plans and Policies

In addition to local plans and policies, there are several regional planning agencies whose environmental, land use, and transportation plans and policies consider the growth and development of the nine-county San Francisco Bay Area. Some of these plans and policies are advisory, and some include specific goals and provisions that must be adhered to when evaluating a project under CEQA. The regional plans and policies that are relevant to the proposed project are discussed below.

- *Plan Bay Area*, prepared by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), is a long-range land use and transportation plan for the nine-county Bay Area that covers the period from 2010 to 2040. *Plan Bay Area* calls for concentrating housing and job growth around transit corridors, particularly within areas identified by local jurisdictions as Priority Development Areas. In addition, *Plan Bay Area* specifies strategies and investments for maintaining, managing, and improving the region's multi-modal transportation network and proposes transportation projects and programs to be implemented with reasonably anticipated revenue. *Plan Bay Area* was adopted on July 18, 2013.
- ABAG's *Projections 2013* is an advisory policy document that includes population and employment forecasts to assist in the development of local and regional plans and policy documents.
- The MTC's *Transportation 2035 Plan for the San Francisco Bay Area* is a policy document that outlines transportation projects for highway, transit, rail, and related uses through 2035 for the nine Bay Area counties.
- The Bay Area Air Quality Management District's *Bay Area 2010 Clean Air Plan* updates the Bay Area 2005 Ozone Strategy, in accordance with the requirements of the California Clean Air Act, to implement feasible measures to reduce ozone and provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases throughout the region.
- The Regional Water Quality Control Board's *Water Quality Control Plan for the San Francisco Bay Basin* is a master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the state, including surface waters and groundwater, and includes implementation programs to achieve water quality objectives.

The proposed project has been reviewed against these regional plans and policies and would not obviously or substantially conflict with these plans or policies.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

<input type="checkbox"/> Land Use	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Geology and Soils
<input type="checkbox"/> Population and Housing	<input checked="" type="checkbox"/> Wind and Shadow	<input type="checkbox"/> Hydrology and Water Quality
<input type="checkbox"/> Cultural and Paleo. Resources	<input type="checkbox"/> Recreation	<input type="checkbox"/> Hazards/Hazardous Materials
<input checked="" type="checkbox"/> Transportation and Circulation	<input type="checkbox"/> Utilities and Service Systems	<input type="checkbox"/> Mineral/Energy Resources
<input type="checkbox"/> Noise	<input type="checkbox"/> Public Services	<input type="checkbox"/> Agricultural and Forest Resources
<input type="checkbox"/> Air Quality	<input type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Mandatory Findings of Significance

Senate Bill 743 and Public Resources Code Section 21099

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014.⁸ Among other provision, SB 743 amends the California Environmental Quality Act (CEQA) by adding Public Resources Code Section 21099 regarding analysis of aesthetics and parking impacts for urban infill projects.

Aesthetics and Parking Analysis

Public Resources Code Section 21099(d), effective January 1, 2014, provides that, “aesthetics and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment.”⁹ Accordingly, aesthetics and parking are no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

- a) The project is in a transit priority area;¹⁰
- b) The project is on an infill site;¹¹ and
- c) The project is residential, mixed-use residential, or an employment center.¹²

⁸ SB 743 can be found on-line at:

http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743.

⁹ See Public Resources Code Section 21099(d).

¹⁰ Public Resources Code Section 21099(a) defines a “transit priority area” as an area within one-half mile of an existing or planned major transit stop. A “major transit stop” is defined in Section 21064.3 of the California Public Resources Code as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

¹¹ Public Resources Code Section 21099(a) defines an “infill site” as a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

The proposed project meets each of the above three criteria because it (1) is located within close proximity to several transit routes, (2) is located on an infill site that is already developed with commercial uses and is surrounded by other similar urban development, and (3) would be an expansion of existing commercial support uses, located within close proximity to several transit routes, and in an urban area on a site already developed and zoned for commercial uses with a FAR greater than 0.75.¹³ Thus, this Initial Study and the EIR do not consider aesthetics and the adequacy of parking in determining the significance of project impacts under CEQA.

Public Resources Code Section 21099(e) states that a Lead Agency maintains the authority to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers and that aesthetics impacts do not include impacts on historical or cultural resources. As such, there will be no change in the Planning Department's methodology related to design and historic review.

The Planning Department recognizes that the public and decision makers nonetheless may be interested in information pertaining to the aesthetic effects of a proposed project and may desire that such information be provided as part of the environmental review process. Therefore, some of the information that would have otherwise been provided in an aesthetics Initial Study or EIR section (such as "before" and "after" visual simulations) will be included in the EIR Project Description. However, this information is provided solely for informational purposes and is not used to determine the significance of the environmental impacts of the project, pursuant to CEQA.

Similarly, the Planning Department acknowledges that parking conditions may be of interest to the public and the decision makers. Therefore, the EIR will present a parking demand analysis for informational purposes and will consider any secondary physical impacts associated with constrained supply (e.g., queuing by drivers waiting for scarce onsite parking spaces that affects the public right-of-way) as applicable in the transportation analysis.

Effects Found to Be Potentially Significant

This Initial Study evaluates the proposed One Oak Street project to determine whether it would result in significant environmental impacts. The designation of topics as "Potentially Significant" in the Initial Study means that the EIR will consider the topic in greater depth and determine whether the impact would be significant. On the basis of this Initial Study, topics for which there are project-specific effects that have been determined to be potentially significant include:

¹² Public Resources Code Section 21099(a) defines an "employment center" as a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and located within a transit priority area.

¹³ San Francisco Planning Department, *Transit-Oriented Infill Project Eligibility Checklist*, December 27, 2014. This document is available for review at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2009.0159E.

- Transportation and Circulation (all topics)
- Wind and Shadow (all topics)

Effects Found Not to Be Significant

The following potential individual and cumulative environmental effects were determined to be either less than significant or would be reduced to a less-than-significant level through recommended mitigation measures included in this Initial Study:

- Land Use and Land Use Planning
- Population and Housing
- Cultural and Paleontological Resources
- Air Quality
- Greenhouse Gas Emissions
- Recreation
- Utilities and Service Systems
- Public Services
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Hazards and Hazardous Materials
- Mineral and Energy Resources
- Agricultural and Forest Resources

These items are discussed, and mitigation measures are identified where appropriate, in Sections E and F, and require no environmental analysis in the EIR. All mitigation measures identified, including those for archaeological resources and hazards, have been agreed to by the project sponsor and will be incorporated into the proposed project.

Approach to Considering Environmental Impacts of the Existing Muni Entrance Variant

The Existing Muni Entrance Variant, described above on pp. 20-23, is a variation of the proposed project that modifies limited aspects of the proposed project. The variant would be available for future selection by the decision-makers or project sponsor.

The variant is substantially the same as the proposed project with respect to the character and intensity of land uses and with respect to exterior building design. Therefore, physical environmental effects of the variant under most environmental topics would be substantially the same as described for the proposed project under the following environmental topics: Land Use and Land Use Planning, Population and Housing, Cultural Resources (historic architectural

resources), Air Quality, Greenhouse Gas Emissions, Wind and Shadow, Recreation, Utilities and Service Systems, Public Services, Biological Resources, and Agricultural and Forest Resources.

The variant could slightly reduce the amount of excavation and the duration of construction from those of the proposed project and would not provide a new connection between the project site and the Van Ness Muni Station. Therefore, the potential for environmental impacts could be slightly reduced from that of the proposed project under the following environmental topics: Cultural Resources (archaeological resources and paleontological resources), Noise, Geology and Soils, Hydrology and Water Quality, Hazards and Hazardous Materials, and Mineral and Energy Resources.

Because the functioning of vehicular access, loading, and transit access under the Existing Muni Entrance Variant would differ from that of the proposed project, further discussion and evaluation of potential Transportation and Circulation impacts of this variant is required and will be specifically addressed in the EIR.

Approach to Cumulative Impact Analysis

Cumulative impacts are two or more individual effects which, when considered together, are considerable or which compound or increase environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. Cumulative impacts are impacts of the project in combination with other closely related past, present and reasonably foreseeable probable future projects. (CEQA Guidelines Section 15355(a)(b))

CEQA Guidelines Section 15130(b)(1) sets forth two primary approaches to the analysis of cumulative impacts. The analysis can be based on (a) a list of past, present, and probable future projects producing related impacts that could combine with those of a proposed project, or (b) a summary of projections contained in a general plan or related planning document. Cumulative impact analysis in San Francisco generally employs both a list-based approach and a projections approach, depending on which approach best suits the individual resource topic being analyzed. For topics such as shadow and wind, the analysis typically considers large, individual projects that are anticipated in the project area. By comparison, transportation analysis relies on a citywide growth projection model that encompasses many individual projects anticipated in the project vicinity. The projections model includes many of the larger, individual projects listed below and applies a quantitative growth factor to account for other growth that may occur in the area.

The following factors were used to determine an appropriate level for cumulative analysis in this Initial Study:

- **Similar Environmental Impacts.** A relevant project contributes to effects on resources that are also affected by the proposed project. A relevant future project is defined as one

that is reasonably foreseeable,” such as a proposed project for which an application has been filed with the approving agency or has approved funding.

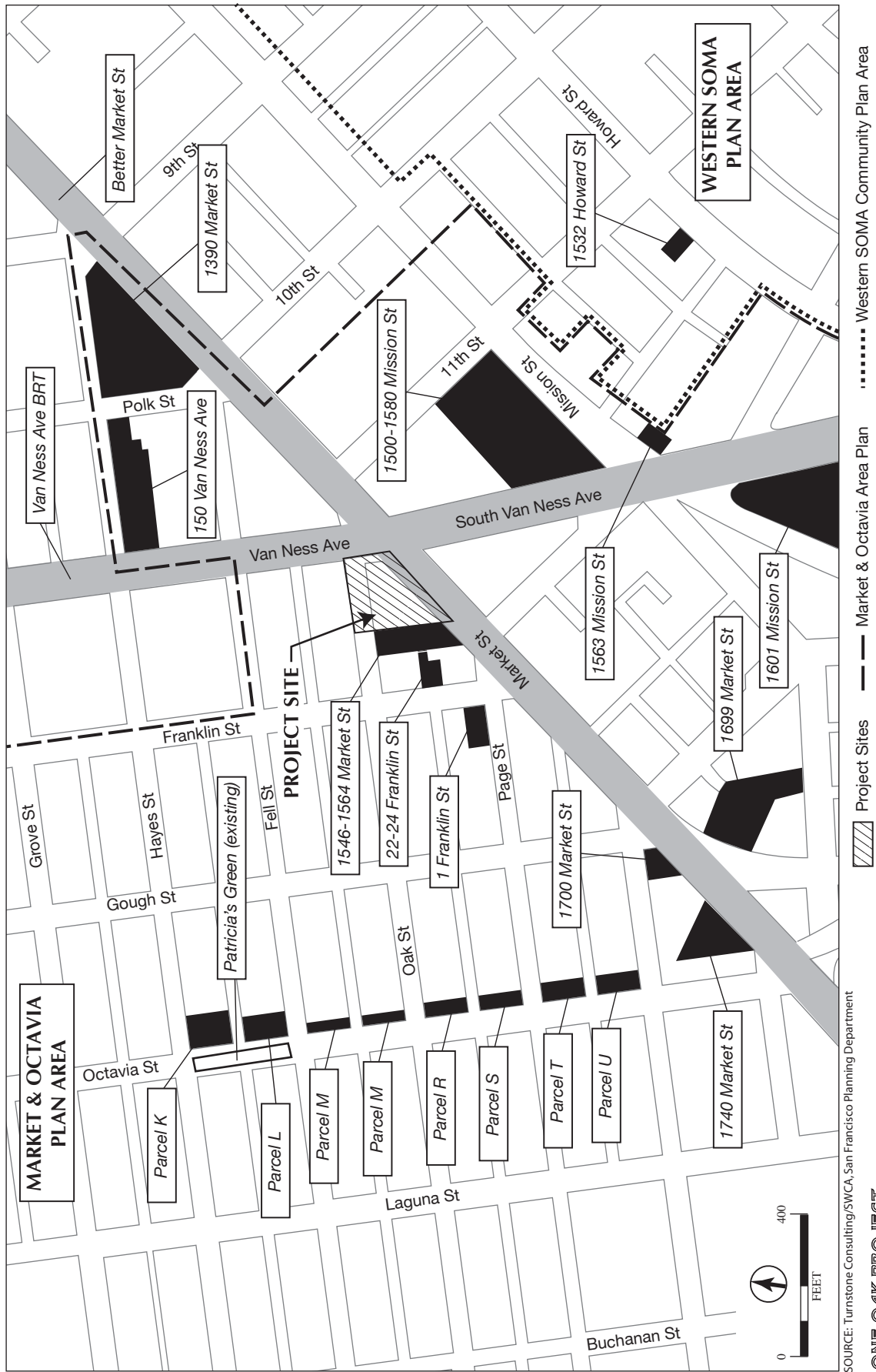
- **Geographic Scope and Location.** A relevant project is located within the geographic area within which effects could combine. The geographic scope varies on a resource-by-resource basis. For example, the geographic scope for evaluating cumulative effects to air quality consists of the affected air basin.
- **Timing and Duration of Implementation.** Effects associated with activities for a relevant project (e.g., short-term construction or demolition, or long-term operations) would likely coincide in timing with the related effects of the proposed project.

Based on the above, the following plans and projects in the project vicinity are examples of the types of projects considered in the cumulative impact analysis. This list is representative and may not include all of the projects considered in the cumulative analysis of each resource topic.

CEQA impact analyses for projects in the vicinity of the Market Street and Van Ness Avenue intersection will need to account for a large number of projects in the area. These include projects that are under construction, projects that have been approved but are not yet under construction, and projects that are undergoing environmental review. The list of reasonably foreseeable probable future projects is comprised of projects within about a quarter mile from the project site¹⁴ that are not yet under construction but for which Planning Department Environmental Evaluation Applications have been filed or approved. Approved projects that are under construction or recently completed at the time of this Notice of Preparation/Initial Study, or the approval of a project’s shadow or wind scope of work (whichever is first), are considered part of the proposed project’s existing setting, rather than part of the future cumulative scenario. Such projects include 1400 Mission Street, Case No. 2011.1043E; 1415 Mission Street, Case No. 2005.0540E; 1321 Mission Street, Case No. 2011.0312E; 101 Polk Street, Case No. 2011.0702E; 100 Van Ness Avenue, Case No. 2012.0032E; 1407-1435 Market Street (NEMA), Case No. 2006.0584; and Central Freeway Parcel V (8 Octavia Street), Case No. 2011.0931E. For the purposes of the wind and shadow studies, these buildings are to be modeled as if fully constructed.

The cumulative analyses for those topics using a list-based approach (such as Noise, Wind, and Shadow) will each use a modified list of nearby future projects from the list that is appropriately tailored to the particular environmental topic based upon the potential for combined localized environmental impacts, as described in the respective cumulative analyses under each environmental topic in this NOP/Initial Study and the forthcoming EIR. See **Figure 13: Reasonably Foreseeable Projects in the Project Vicinity.**

¹⁴ The quarter-mile radius serves as a general guide. The list may be more or less inclusive depending on the particular characteristics of the proposed project and its surroundings and that of the anticipated nearby projects



SOURCE: Turnstone Consulting/SWCA, San Francisco Planning Department

ONE OAK PROJECT

2009.0159E

FIGURE 13: REASONABLY FORESEEABLE PROJECTS IN THE PROJECT VICINITY

- **1546-1564 Market Street**, Case No. 2012.0877E. The proposal is to merge the two lots, demolish the existing buildings, and construct a 12-story, 120-foot-tall mixed-use residential building with up to 109 residential units, up to 28 off-street parking spaces, and approximately 4,900 gsf of ground-floor retail. (Currently undergoing environmental review.)
- **150 Van Ness Avenue**, Case No. 2013.0973E. The proposal is to merge five lots, demolish the existing buildings, and construct a 512,010-gsf, 12-story, 120-foot-tall mixed-use residential building with 429 residential units, 218 off-street parking spaces in one below-grade basement level, and approximately 9,000 gsf of ground-floor retail space. (Currently undergoing environmental review.)
- **1500-1580 Mission Street** (Goodwill site), Case No. 2014-000362ENV. The proposal is to merge the two lots, demolish the majority of the existing buildings, and construct a new mixed-use building. The project would include the retention and reconfiguration of a portion of the Mission Street frontage and the clock tower element of the 1500 Mission Street building. The mixed-use building would include approximately 550 residential units in a 380-foot-tall tower, approximately 463,300 gsf of office/permit center space to be occupied by the City and County of San Francisco in a 260-foot-tall tower and podium, 35,000 gsf of ground-floor retail space, and up to 309 off-street parking spaces. The project sponsor is seeking a zoning map amendment to adjust the height/bulk designations and amendments to the Planning Code. (Currently undergoing environmental review.)
- **1601 Mission Street** (Tower Car Wash), Case No. 2014.1121ENV. The proposal is to demolish the existing gas station facilities and construct an 11-story, 120-foot-tall mixed-use residential building with up to 200 residential units, up to 93 off-street parking spaces in one below-grade basement level, and approximately 10,400 gsf of ground-floor commercial space. (Currently undergoing environmental review.)
- **22 Franklin Street**, Case No. 2013.1005E. The proposal is to merge two lots, demolish the existing commercial building, and construct an 8-story, 85-foot-tall mixed-use residential building with up to 24 residential units, and 2,120 gsf of retail space along Franklin Street. (Currently undergoing environmental review.)
- **1 Franklin Street**, Case No. 2014.1423V. The proposal is to construct an 8-story mixed-use residential building with 35 residential units, 18 off-street parking spaces, and approximately 2,400 gsf of ground-floor commercial space. The project would comply with the two different height limits that apply on the lot (50 and 85 feet). (Approved but not yet under construction.)
- **1390 Market Street** (Fox Plaza Expansion), Case No. 2005.0979E. Fox Plaza currently contains two buildings: a 29-story mixed-use building and a two-story commercial building. The proposal would demolish the existing, two-story building and construct an 11-story, 120-foot-tall mixed-use residential building with up to 230 residential units, no parking spaces, and approximately 17,500 gsf of ground-floor commercial space. The existing 29-story mixed-use building would not be changed. (Approved but not yet under construction.)
- **1699 Market**, Case No. 2014.0484E. The proposed project would demolish an existing building and surface parking lot and construct a new 9-story residential (162 units) and commercial (3,937 sq. ft.) building with 97 below-grade parking spaces. (Currently undergoing environmental review.)

- **1700 Market**, Case No. 2013.1179E. The proposal is to demolish the existing building and construct an 8-story, 85-foot-tall mixed-use residential building with up to 43 residential (group housing) units and approximately 1,500 gsf of ground-floor retail space. (Currently undergoing environmental review.)
- **1740 Market Street**, Case No. 2014.0409E. The proposal is to demolish the existing building and construct a 9-story, 85-foot-tall mixed-use residential building with up to 110 residential (group housing) units and approximately 7,630 gsf of ground-floor commercial space. (Currently undergoing environmental review.)
- **1563 Mission Street**, Case No. 2014.0095E. The proposal is to change the use of the existing 44,000-sq.-ft. building from commercial use to medical and social services to be provided by HealthRight360, and an addition of 6,000 sq. ft. The project would involve interior tenant improvement, replacement of a mezzanine, and façade changes. (Currently undergoing environmental review.)
- **1532 Howard Street**, Case No. 2013.1305E. The proposal is to demolish an existing one-story commercial building and the construct a 6-story residential building with 15 single-room-occupancy units. (Currently undergoing environmental review.)
- **Market & Octavia Area Plan**, Case No. 2003.0347. The Market & Octavia Area Plan is an element of the San Francisco *General Plan*. The Market & Octavia Area Plan serves to respond to the need for housing, to repair the fabric of the neighborhood, and to support transit-oriented development. The Plan proposes new zoning for appropriate residential and commercial uses, prescribes streetscape and open space improvements, and places high-density land uses close to transit. Additionally, the Plan describes infill guidelines for housing on 22 vacant Central Freeway parcels and the creation of a new residential center in the SOMA West / South Van Ness area.
- **Western SoMa Community Plan**, Case No. 2008.0877E. The Western SoMa Community Plan is an element of the San Francisco *General Plan*. The Plan Area comprises approximately 298 acres in the western portion of the South of Market. The various components of the Plan include increases and decreases in building heights on selected parcels due to proposed height and bulk district reclassifications; increases and decreases in density on selected parcels due to proposed use district reclassifications that replace density standards with other mechanisms to account for density, such as building envelope controls; and streetscape improvements along designated streets and intersections, including installation of signalized pedestrian crossings; sidewalk extensions and corner bulbouts; gateway treatments such as signage and lighting; physical roadway features such as enhanced hardscape area, landscaped islands and colored textured pavement; public realm greening amenities (i.e., street trees and planted medians); and other pedestrian enhancements (i.e., street furniture and public restrooms). (The Western SoMa Community Plan has been adopted and plan implementation is currently underway.)
- **Van Ness Bus Rapid Transit (BRT)**. The Van Ness Avenue BRT project is a program to improve Muni bus service along Van Ness Avenue between Mission and Lombard streets through the implementation of operational and physical improvements. The operational improvements consist of (1) designating bus-only lanes to allow buses to travel with fewer impediments, (2) adjusting traffic signals to give buses more green lights at intersections, and (3) providing real-time bus arrival and departure information to passengers to allow them to manage their time more efficiently. The physical improvements consist of (1) building high-quality and well-lit bus stations to improve

passenger safety and comfort, and (2) providing streetscape improvements and amenities to make the street safer and more comfortable for pedestrians and bicyclists who access the transit stations. (State Clearinghouse No. 2007092059) (Construction to commence in 2016.)

- **Transit Effective Program (TEP)**, Case No. 2011.0558E. The TEP proposals include a series of service improvements and concurrent necessary capital investments designed to improve safety and service reliability and reduce travel time. The TEP is comprised of four major categories: service policy framework, service improvements, service-related capital projects, and travel time reduction proposals. The proposed Service Improvements include creating new routes, redesigning existing routes, or adding service to new streets; eliminating unproductive existing routes or route segments; changing vehicle type; changing frequency and span of service; changing the mix of local/limited/express service; and other changes, such as new express service stops, expansion of Limited-stop service to include Sundays, and the expansion of other service with the addition of days of operation. In the vicinity of Market and Van Ness, TEP improvements would include route changes along Van Ness and Mission Street to the following routes: 10 Townsend and 47 Van Ness routes changes.
- **Better Market Street**, Case No. 2014.0012E. The project sponsor, San Francisco Public Works, in coordination with the San Francisco Planning Department and the SFMTA, proposes to redesign and provide various transportation and streetscape improvements to the 2.2-mile segment of Market Street between Octavia Boulevard and The Embarcadero and potentially to the 2.3-mile segments of Mission Street between Valencia Street and The Embarcadero, as well as Valencia Street between Market and McCoppin streets and 10th Street between Market and Mission as part of the proposed Better Market Street Project. Elements of the Better Market Street Project consist of both transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic signals; surface transit, including transit-only lanes, stop spacing, service, stop location, stop characteristics and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities. The EIR will analyze three alternatives. Based on the EIR and other analysis and comment, a project proposal within the range of these alternatives will be proposed for consideration and approval:
 - Alternative 1: Market Street (Complete Street and Transit Priority Improvements)
 - Alternative 2: Market Street Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)
 - Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission)

Alternatives 1 and 2 include two designs for the bicycle facilities on Market Street, Design Option A and Design Option B. Under Alternatives 1 and 2, Design Option A, an enhanced version of the existing shared vehicle and bicycle lane with painted sharrows (shared lane pavement markings) would be provided at locations where a dedicated bicycle facility is not already present. Under Alternatives 1 and 2, Design Option B, a new raised cycle track (an exclusive bicycle facility that is physically separated from motor traffic and is distinct from the sidewalk for the exclusive or primary use of bicycles) would be provided along the entire length of Market Street, except at locations

where BART/Muni entrances or other obstructions would not allow it. Alternative 3 includes the proposed bicycle facilities on Market Street described under Alternative 1, Design Option A and adds a cycle track in both directions on Mission Street. (The Better Market Street Project is currently undergoing environmental review.)

- **Safer Market Street**, Case No. 2015-004278ENV. The Safer Market Project proposes to restrict private vehicle access along a segment of Market Street to reduce conflicts between private vehicles and other roadway users on a high-injury corridor. The Safer Market Street Project would help achieve the City's adopted Vision Zero policy, which aims to eliminate all traffic-related fatalities by 2024. Unlike most San Francisco streets, the majority of collisions on Market Street are at mid-block locations and are caused by vehicles proceeding straight, rather than turning movements at intersections. To address this collision pattern, the Safer Market Street Project proposes to improve safety by restricting private vehicles from the segment of Market Street between 3rd Street and 8th Street, which has the most collisions. The project also proposes to create continuous eastbound and westbound transit only lanes through this segment to reduce collisions caused by lane changes. As part of the Safer Market Street Project, private vehicles that currently travel on that segment of Market Street would be diverted throughout the network north or south of the corridor.
- **Central Freeway Parcels.** The removal of the Central Freeway and construction of Octavia Boulevard resulted in excess land that the California Department of Transportation transferred to the City and County of San Francisco. The parcels along the former Central Freeway alignment are envisioned to accommodate housing. To the extent feasible, development of these sites was evaluated at a project level in the *Market and Octavia Neighborhood Plan Final Environmental Impact Report*, Case No. 2003.0347E. Projects on the Central Freeway Parcels, listed below, are currently undergoing environmental review and are being reviewed for consistency with the project analyzed in the *Market and Octavia FEIR*. The Planning Department will determine if the analysis in the *Market and Octavia FEIR* sufficiently addressed the potential environmental impacts of these projects as currently proposed.
 - **Central Freeway Parcel K** (370 Linden Street) (APN 0817/068) (APN stands for assessor's parcel number). The approximately 11,430-sq.-ft. site is occupied with temporary retail and restaurant uses. This parcel was identified as Central Freeway Parcel K in the *Market Octavia FEIR*. The original proposal included the development of up to 25 residential units in a mixed-use residential building. (Environmental review was completed as part of the *Market Octavia FEIR* and no entitlements have been filed.)
 - **Central Freeway Parcel L** (404-428 Octavia Street) (APN 0817/033). The approximately 13,595-sq.-ft. site is occupied with temporary restaurant uses. This parcel was identified as Central Freeway Parcel L in the *Market Octavia FEIR*. The original proposal included the development of up to 25 residential units in a mixed-use residential building. (Environmental review was completed as part of the *Market Octavia FEIR* and no entitlements have been filed.)
 - **Central Freeway Parcel M** (379 Fell Street) (APN 0832/026) Case File No. 2014-002330ENV. The approximately 3,000-sq.-ft. site is currently vacant and was identified as Central Freeway Parcel M in the *Market Octavia FEIR*. The proposal is to construct a five-story, 55-foot-tall mixed-use residential building. (Currently undergoing environmental review.)

- **Central Freeway Parcel N** (300 Octavia Street) (APN 0832/025) Case File No. 2014-002330ENV. The approximately 3,000-sq.-ft. site is currently vacant and was identified as Central Freeway Parcel N in the *Market Octavia FEIR*. The proposal is to construct a five-story mixed-use residential building with up to 16 micro residential units and approximately 650 gsf of ground-floor retail space. (Currently undergoing environmental review.)
- **Central Freeway Parcels R and S** (APN 0838/035) Case File No. 2014-002101ENV. The project consists of the development of both parcels R and S into a mixed-use 100 percent affordable residential project consisting of two buildings, partially satisfying the “Offsite BMR [Below Market Rate]” requirement for the multi-family One Oak Street residential project. The proposed project would provide approximately 19,968 gsf of permanently affordable residential housing and approximately 4,925 gsf of neighborhood-serving retail. (Currently undergoing environmental review.)
- **Central Freeway Parcel T** (APN 0853/022). The proposal is to construct a 5-story, 55-foot-tall mixed-use residential building with up to 26 residential units, up to 13 residential parking spaces, and approximately 5,320 gsf of ground-floor retail space. (Environmental review completed as part of the *Market Octavia FEIR* and no entitlements have been filed.)
- **Central Freeway Parcel U** (APN 0853/021). The proposal consists of the development of a 5-story, 55-foot-tall mixed-use building with 32 residential unit on the approximately 13,198-sq.-ft. lot, which is currently vacant. (Environmental review completed as part of the *Market Octavia FEIR* and no entitlements have been filed.)

E. EVALUATION OF ENVIRONMENTAL EFFECTS

All items on the Initial Study Checklist that have been checked “Less than Significant Impact,” “No Impact” or “Not Applicable” indicate that, upon evaluation, staff has determined that the proposed project could not have a significant adverse environmental effect relating to that topic. A discussion is included for those issues checked “Less than Significant Impact” and for most items checked with “No Impact” or “Not Applicable.” For all of the items checked “Not Applicable” or “No Impact” without discussion, the conclusions regarding potential significant adverse environmental effects are based upon field observation, staff experience and expertise on similar projects, and/or standard reference material available within the Department, such as the Department’s *Transportation Impact Analysis Guidelines for Environmental Review* or the California Natural Diversity Data Base and maps, published by the California Department of Fish and Wildlife. For each checklist item, the evaluation has considered the impacts of the proposed project both individually and cumulatively.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
1. LAND USE AND LAND USE PLANNING— Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial impact upon the existing character of the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact LU-1: The proposed project would not physically divide an established community. (Less than Significant)

The proposed project would not create a physical barrier to neighborhood access or remove an existing means of access. The proposed residential building would be developed within the delineated limits of its lot. The proposed project includes closure of a segment of Oak Street to normal vehicular traffic to create a new public pedestrian plaza within the Oak Street right-of-way. The proposed project also includes placement of a canopy structure within the Oak Street public right-of-way covering a portion of Oak Plaza. The proposed plaza would change existing vehicular traffic circulation patterns and could temporarily inconvenience motorists accustomed to turning on to Oak Street from Van Ness Avenue.

The proposed change in use to this segment of Oak Street from its existing use as a roadway to its proposed use as public open space would not create a barrier or obstruction that would physically divide the community. Rather, the proposed Oak Plaza improvements are intended to enhance

the pedestrian environment and facilitate pedestrian circulation and connectivity in the area. Oak Plaza would continue to be accessible to emergency vehicles, as discussed in **Section E.15, Hazards**. The proposed canopy structure would continue to provide adequate clearances for emergency vehicles. Vehicle access to properties on Oak Street west of the project site would be available from Franklin Street. For these reasons, the proposed project would have a less-than-significant effect regarding physically dividing the surrounding community. No mitigation measures are necessary.

Impact LU-2: The proposed project would not conflict with *General Plan* objectives and policies adopted for the purpose of avoiding or mitigating an environmental effect. (*Less than Significant*)

At a height of 400 feet, the westernmost portion of the proposed project tower would exceed the 120-foot height limit applicable to this portion of the building site. As discussed above in Initial Study Section C, Compatibility with Existing Plans and Policies, most of the building site component of the project site (Lots 1 through 4 plus the eastern half of Lot 5) is in a 120/400-R-2 Height and Bulk District. However, the westernmost portion of the building site (the western half of Block 0836, Lot 5) is in a 120-R-2 Height and Bulk District. The proposed project would require *General Plan* and Zoning Map amendments to shift the 120/400-R-2 Height and Bulk District from the easternmost parcel (Lot 1), to the westernmost portion of the westernmost parcel (Lot 5). The proposed rearrangement of the existing height districts within the building site component of the project site would not substantially alter the general land use pattern envisioned for the immediate area, which calls for residential uses in tall slender towers at the intersection of Market Street/Van Ness Avenue.

The proposed 400-foot tower would not conform to the 120-foot height limit within the westernmost portion of the building site. This conflict would not in itself result in a significant environmental impact under CEQA because this aspect of the proposed project would not conflict, on balance, with plans and land use regulations adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project would substantially conform to the general land use pattern for height and bulk envisioned for the immediate area under the *Market and Octavia Area Plan*. The Plan calls for a concentration of density in areas, such as the project site, best served by transit and accessible by foot. The *Market and Octavia Area Plan* also envisions the intersection of Market Street and Van Ness Avenue marked by prominent visual landmarks in the form of tall slender towers. The proposed project is also consistent with the Van Ness and Market Downtown Residential Special Use District which, under Planning Code Section 249.33, envisions a transit-oriented, high-density, mixed-use neighborhood with a significant residential presence for the area. The proposed project would not substantially conflict with applicable plans and policies. No mitigation measures are necessary.

Impact LU-3: The proposed project would not have a substantial impact on the existing character of the vicinity. (*Less than Significant*)

The proposed project would not have a substantial demonstrable adverse impact on the existing character of the built environment, nor on the existing land use character of the vicinity.

Existing Character of the Built Environment

The proposed project, at 39 stories and 400 feet tall (420 feet tall including a 20-foot-tall mechanical penthouse), would be substantially taller than surrounding development. As discussed above in **Section B, Project Setting**, on pp. 26-28, the existing character of the project site and its surroundings is varied. Building height, scale, siting, massing, architectural character, and age do not conform to any strongly discernible overall pattern. The proposed project would be overtly contemporary in architectural character and would increase and contribute to the existing variety of forms and features that characterizes existing buildings in the area.

Implementation of the proposed project would transform the existing character of the project site and would introduce a prominent new building, public plaza, and wind canopy within the project site. The proposed project includes features that are intended to contribute visual interest and variety to its setting, an area characterized by a varied character of development. The proposed project would also include features intended to improve the pedestrian environment. The proposed new 400-foot-tall building, public plaza, and wind canopy structure would not be inconsistent with the existing dense and varied urban environment in the area. As discussed above under Impact LU-2, the proposed project would also be generally consistent with the City's overall vision for future height and visual prominence of new buildings in the vicinity under the *General Plan* and the *Market and Octavia Area Plan*.

For these reasons, the proposed project would have a less-than-significant impact on the existing character of the site and its surroundings. No mitigation measures are necessary.

Existing Land Use Character

As discussed above in **Section C, Compatibility with Existing Zoning and Plans**, on p. 30, the project site is in the C-3-G District. Pursuant to Planning Code Section 210.3, the C-3-G District includes diverse retail, office, hotel, entertainment, institutional, and high-density residential uses. Many of these uses have a citywide or regional function, although the intensity of development is lower here than in the downtown core area. As in the case of other downtown districts, no off-street parking is required for individual commercial buildings. In the vicinity of Market Street, the configuration of this district reflects easy accessibility by rapid transit.

Implementation of the proposed mixed-use, high-density residential project would be compatible with existing uses in the vicinity and would not fundamentally alter the land use character of the project vicinity by introducing incompatible land uses. Likewise, the proposed new public open

space use for the proposed Oak Plaza (which, like other urban plazas, would include seating and food service, and could also be used for events) would not conflict with the existing diverse retail, office, entertainment, institutional, and residential land uses in the area. The intensification and change of uses over time is a commonly expected and experienced consequence of urban growth in San Francisco, particularly along or near mass transit corridors such as Market Street and Van Ness Avenue where there has been substantial public investment in transit infrastructure.

For these reasons, the proposed project would not have a substantial adverse impact on the existing land use character of the vicinity. This impact would be less than significant, and no mitigation measures are necessary.

The physical impacts of construction and operation of the proposed land uses within the project site are manifested in environmental impacts that are discussed in this Initial Study under the environmental topics presented later in this section, and in a forthcoming EIR.

Cumulative Impacts

Impact C-LU-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not contribute considerably to a significant cumulative land use impact. (*Less than Significant*)

The proposed project combined with other past, present, and reasonably foreseeable future projects would result in a physical change to the neighborhood by increasing the number of residential units in the surrounding area and adding population density.

The proposed project would implement the types and densities of uses envisioned by the *Market and Octavia Area Plan* and analyzed in the *Market Octavia FEIR*. The *Market Octavia FEIR* considered that the project site would maintain the same land use designation of Downtown General Commercial and a building height designation of 120-400 feet tall. That FEIR found that Plan implementation could result in three major land use effects: 1) provision of an almost three-fold increase in total housing development in the area compared to existing conditions; 2) creation of a sustainable and more efficient land use pattern by concentrating and redirecting land uses into higher density, residential mixed-use projects near transit and neighborhood retail and services; and 3) a reduction in the negative land use effects of automobile traffic and parking in the area, including the creation of more livable and safe street environments for residents, pedestrians, and bicyclists. That EIR further found that additional housing development in the area in combination with other housing development in the vicinity would provide a more sustainable transit-oriented development pattern and would not disrupt or divide an established community or have a substantial adverse impact on the existing character of the project vicinity and that the cumulative impacts would not be significant. The introduction of high-rise residential development at the prominent intersection of Market Street and Van Ness Avenue, as envisioned in the *Market and Octavia Area Plan* and analyzed in the FEIR, would transform the

existing land use character of the area and would extend the general building scale of the downtown area westward to Van Ness Avenue. The *Market Octavia FEIR* did not identify any significant adverse effects related to Land Use that would result from such a change.

The proposed project, in combination with past, present, and reasonably foreseeable future projects in the southwestern portion of Downtown and the *Market and Octavia Area Plan*, would contribute to increases in the amount of residential, and retail uses in the project vicinity that are anticipated and planned for in the *Market and Octavia Plan*, such as the development on parcels along the east side of Octavia Boulevard. (See Figure 13 on p. 40.) This cumulative development is not expected to result in the construction of any physical barriers to neighborhood access or the removal of any existing means of access, either of which would physically divide the established community. In addition, this cumulative development is not expected to introduce any land uses, such as industrial uses, that would disrupt the community's established land use patterns.

There are two reasonably foreseeable projects within the project block: 1546-1564 Market Street and 22 Franklin Street. The 1546-1564 Market Street site is immediately adjacent to the project site to the west. That project calls for demolition of existing buildings on that site and construction of a 12-story, 120-foot tall, mixed-use residential building with up to 109 residential units, up to 28 off-street parking spaces, and approximately 4,900 gsf of ground-floor retail. The 22 Franklin Street site is further west and fronts along Franklin Street. That project calls for demolition of the existing commercial building on that site, and construction of an 8-story, 85-foot tall mixed-use residential building with up to 24 residential units, and 2,120 gsf of retail space. The proposed residential/retail project would be consistent with the land use character of these anticipated residential/retail projects on the project block as well as several other nearby residential proposals in the vicinity of the project site. The proposed project would be substantially taller and denser than these other projects in the vicinity. However, these projects, together with the proposed project, implement the *Market and Octavia Area Plan*, extending the downtown high-rise scale westward to properties at the intersection of Van Ness Avenue and Market Street with a transition to mid-rise development further west of the intersection.

The changes to Oak Street and the Van Ness Avenue and Market Street sidewalks under the proposed project would not conflict with implementation of anticipated transportation network changes within Van Ness Avenue and Market Street, in particular, the Van Ness BRT. The Van Ness BRT would create two dedicated transit lanes, one northbound and one southbound, flanked by stations and shelters, in the center of Van Ness Avenue. Most left turns from Van Ness Avenue would be eliminated. The proposed project, which calls for closure of a segment of Oak Street west of Van Ness Avenue, would not conflict with these or other proposed transportation network changes along Van Ness Avenue and Market Street. The forthcoming EIR transportation section will analyze potential impacts of the proposed project in combination with anticipated transportation network changes along Van Ness Avenue and Market Street. As discussed on

p. 25, the proposed changes within adjacent public rights-of-way would require review and approval from the SFMTA.

The proposed project, in combination with past, present, and reasonably foreseeable future projects, would also be consistent with local and regional growth projections, such as *Projections 2013*, published by ABAG, and adopted planning documents, such as the 2009 Update of the Housing Element of the *San Francisco General Plan*. This cumulative development is not expected to conflict with any land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Implementation of the proposed project, in combination with past, present, and reasonably foreseeable future projects, would intensify land uses in the project vicinity, but this intensification and growth is not expected to introduce any land uses that do not already exist in the area. As a result, the character of the vicinity would not undergo any substantial adverse changes related to land use.

For these reasons, the proposed project, in combination with past, present, and reasonably foreseeable future projects, would have less-than-significant cumulative land use impacts. The proposed project would not make a cumulatively considerable contribution to a significant cumulative land use impact, and no mitigation measures are necessary.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
2. POPULATION AND HOUSING— Would the project:					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In general, a project that induces substantial growth or concentration of population is not viewed as having a significant impact on the environment unless this growth results in significant physical impacts on the environment. The physical environmental effects of this growth and increased density are examined under other environmental topics such as transportation and circulation, air quality, noise, recreation, public services, and utilities and service systems. Potential environmental effects associated with population and employment growth are discussed in the relevant sections of this Initial Study (Section E.5, Noise; Section E.6, Air Quality;

Section E.9, Recreation; Section E.10, Utilities and Service Systems; and Section E.11, Public Services) or will be discussed in the EIR (Transportation and Circulation).

Population and employment growth are also considered in the context of adopted local and regional plans and population and employment projections for the City and County of San Francisco. For the purposes of this analysis, the project-related population and employment increases are also evaluated in the context of urban growth attributable to implementation of the *Market and Octavia Area Plan*, which includes the project site.

Impact PH-1: The proposed project would not induce substantial population growth in an area, either directly or indirectly. (*Less than Significant*)

The proposed project would introduce 320 residential dwelling units to the project site, which currently has no residential uses. It would also introduce approximately 12,970 gsf of retail/restaurant uses to the project site, which currently has active commercial and retail uses (All Star Cafe), in the existing three-story commercial building at 1500 Market Street; a 30-car surface parking lot; and office uses in the four-story commercial building at 1540 Market Street). The proposed project would directly increase population at the project site and would contribute to anticipated population growth in the neighborhood and citywide.

The 2010 U.S. Census reported a population of 805,235 persons in the City and County of San Francisco¹⁵ and a population of 3,264 persons in Census Tract 168.02, which includes the project site.^{16, 17} The population of Census Tract 168.02 and adjacent Census Tracts within a quarter-mile radius of the project site is approximately 31,978 persons.¹⁸ Based on an average household size for San Francisco of 2.26 persons per unit in 2010,¹⁹ the addition of 320 residential dwelling units would increase the population at the project site by about 723 residents. This would represent a residential population increase of about 22 percent over the reported 2010 population within Census Tract 168.02, about 2.3 percent over the reported

¹⁵ U.S. Census Bureau, American FactFinder, Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data. Available online at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 29, 2014.

¹⁶ Census Tract 168.02 is bounded by Oak Street to the north, Van Ness Avenue to the east, Market Street to the south, and Laguna (between Market and Haight streets), Webster (between Haight and Page streets), and Fillmore (between Page and Oak streets) streets to the west.

¹⁷ U.S. Census Bureau, American FactFinder, Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data. Available online at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 29, 2014.

¹⁸ Census Tracts 162, 124.02, 176.01, 177, 201, and 202. U.S. Census Bureau, American FactFinder, Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data. Available online at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 29, 2014.

¹⁹ Association of Bay Area Governments (ABAG), *Projections 2013*. Census Tract 168.02 had an average household size of 1.70 persons in 2010. The *Market and Octavia Neighborhood Plan EIR* used an average household size of 1.91 persons. The citywide datum (2.26 persons) is used because it is more conservative.

2010 population within the project area (Census Tract 168.02 and adjacent Census Tracts), and about 0.09 percent over the reported 2010 citywide population. The population increase attributable to the proposed project would represent about 0.3 percent of the projected citywide population increase of about 280,465 persons between 2010 and 2040.²⁰

The project-related residential population growth that would result from the increase in the number of housing units on the project site would be within, and consistent with, population projections for San Francisco developed by ABAG as well as projections related to the implementation of the *Market and Octavia Area Plan*. In addition, this increase in population would not substantially change existing area-wide population characteristics, and the resulting density would not exceed levels common and accepted in urban areas such as San Francisco, as well as levels anticipated and encouraged under the *Market and Octavia Area Plan*. Therefore, implementation of the proposed project would not directly induce substantial growth or concentration of population that would cause a substantial adverse physical change to the environment. Furthermore, the proposed project would not indirectly induce substantial population growth in the project vicinity because its attendant public realm improvements would not augment the carrying capacity of adjacent roadways, utilities, or other public infrastructure.

The proposed project would replace existing commercial activities on the project site (the All Star Cafe, the surface parking lot, and office uses at the existing 1540 Market Street building) with a mixed-use building with 320 residential units, 160 parking spaces, and 12,970 gsf of ground-floor retail/restaurant uses. The existing commercial activities on the project site have approximately 45 employees.²¹ The proposed development program would result in the generation of approximately 41 new jobs (11 property management/maintenance jobs for the new One Oak Street building and 30 jobs for the new retail uses^{22, 23}). As a result, there would be a net displacement of approximately four jobs. For this reason, implementation of the proposed project would not induce substantial growth or concentration of employment that would cause a substantial adverse physical change to the environment.

In summary, the project-related residential population increase would not be substantial in relation to the expected increases in the residential population in the Market and Octavia neighborhood and San Francisco. The proposed project would not directly or indirectly induce

²⁰ ABAG, *Projections 2013*, p. 75. The projected residential population of San Francisco for 2040 is 1,085,700 persons.

²¹ E-mail communication with Project Sponsor, October 2, 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

²² E-mail communication with Project Sponsor, October 15, 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

²³ San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, Appendix C, Table C-1. An employment factor of 350 gsf per employee is used for general retail uses.

substantial population growth or concentration of employment in the project vicinity, in the Market and Octavia neighborhood, or citywide such that an adverse physical change to the environment would occur. This impact would be less than significant, and no mitigation measures are necessary.

Impact PH-2: The proposed project would not displace substantial numbers of existing housing units or people nor would it create demand for additional housing, necessitating the construction of replacement housing. (*Less than Significant*)

The project site is not developed with residential uses; therefore, no residential displacement would result from implementation of the proposed project. The proposed project would implement the *Market and Octavia Area Plan*, which envisions and encourages high-density housing at the project site and other appropriate locations. The proposed project would help to meet the City's overall housing demands by adding 320 new residential units to the City's housing stock and either 64 off-site below-market-rate (BMR) units within one mile of the project site or payment of an in-lieu fee in compliance with the City's Inclusionary Affordable Housing Program (Planning Code Section 415).²⁴ The proposed change in land use on the project site (from commercial and retail uses to a mixed-use residential building with ground-floor retail/restaurant uses) would result in a net decrease in on-site employment and would not create additional demand for housing. Thus, the proposed project would have a less-than-significant impact related to displacement of residents and the demand for additional housing. No mitigation measures are necessary.

Cumulative Impacts

Impact C-PH-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not contribute considerably to significant cumulative population and housing impacts. (*Less than Significant*)

The proposed project would not contribute to a significant adverse cumulative impact related to population growth. The proposed project would create a new high-density residential development on an urban infill site at the intersection of major mass transit lines, and in close proximity to a concentration of employment, retail, and other services. This area of San Francisco is particularly suited, and therefore planned, to absorb substantial residential population growth and to become residential in character over time.

The list of past, present, and reasonably foreseeable future development is provided on Initial Study pp. 40-45 and includes mixed-use, commercial, and residential projects. Together, these

²⁴ Projects of five or more residential units are required to contribute to the creation of BMR housing, either through direct development of BMR residential units on the project site (equal to 12 percent of the project's overall residential units), within a separate building within 1 mile of the project site (equal to 20 percent of the project's overall residential units), or through an in-lieu payment to the Mayor's Office of Housing.

projects entail development of up to 2,047 residential units, approximately 101,010 gsf of retail/commercial space, approximately 422,700 gsf of office space, and approximately 46,600 gsf of medical and social service uses.²⁵ Based on a conservative average (i.e., one that may overstate rather than understate household size) of approximately 2.26 persons per household and an employment factor of 350 gsf per employee for retail uses, these projects could add up to 4,625 residents and up to 290 employees to the project area.²⁶ Cumulative development in the project vicinity would result in an intensification of land uses and cumulative increases in the residential and employment populations at the neighborhood, citywide, and regional levels.

Although the proposed project would combine with these projects and add to citywide population and employment growth, the project-related contribution to population and employment growth as described under Impact PH-1, such growth would be consistent with 2040 population and employment growth projections presented in *Plan Bay Area* and *Projections 2013* and would not result in substantial, unplanned population and employment growth in the area. The project-related contribution to cumulative population and employment growth is also consistent with the planned urban growth attributable to implementation of the *Market and Octavia Area Plan*. Although the proposed project would contribute to the population and employment growth in the Market and Octavia neighborhood, it would not cause a significant adverse physical impact, since it would focus new housing development in San Francisco in an established urban area that has a high level of transit access and other public services that can accommodate the proposed residential population increase,²⁷ while generally conforming to the height and bulk parameters of the Planning Code. The *Market Octavia FEIR* found this increase in housing development, as well as in residential population, to not constitute an adverse physical environmental impact. Therefore, while the proposed project would contribute to this cumulative population growth, this level of growth would fall into the range of effects discussed in the *Market Octavia FEIR*, as would the other projects being developed in the vicinity of the project site.

Additionally, the proposed project and the nearby projects would contribute up to 2,367 residential units to San Francisco's housing supply when constructed, and meet a portion of the City's overall existing demand for housing. As described under Impact PH-2, the proposed project would not result in residential displacement and would meet its obligation to create below market rate housing by providing up to 64 off-site BMR units or payment of an in-lieu fee. The nearby residential projects would also be required to address the requirements of the Inclusionary Affordable Housing Program through in-lieu payments or other means as required in Planning

²⁵ The increase in office space is primarily due to the proposed shifting of City office functions from 1660 Mission Street to 1500-1580 Mission Street. Therefore, this shift and/or replacement of existing office uses is not part of the new employment calculation. Future plans for 1660 Mission Street are not factored into the area totals because there is no information available regarding its future use.

²⁶ San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, Appendix C, Table C-1. General retail factor used.

²⁷ San Francisco Planning Department, *Market and Octavia Neighborhood Plan EIR*, 2005, p. 4-75. Available online at <http://www.sf-planning.org/index.aspx?page=1714>. Accessed September 30, 2014.

Code Section 415. Therefore, implementation of the proposed project, in combination with the nearby projects, would result in a direct increase in BMR units locally and citywide and would not contribute to a cumulative citywide shortfall in affordable housing.

As described above, the nearby projects when considered together would add approximately 290 net new employees to the project area by 2040. The nearby projects’ estimated employment increase of up to 290 employees would generate a demand for approximately 245 new housing units in San Francisco by 2040 and would not contribute in a considerable manner to cumulative housing impacts. As described under Impact PH-2, the proposed project would result in a net decrease in on-site employment and would not contribute to a cumulative citywide demand for additional housing.

In conclusion, the proposed project, in combination with past, present, and reasonably foreseeable future development, would not make a considerable contribution to significant cumulative impacts related to population and housing, or create housing demand that would likely be unmet. No mitigation measures are necessary.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
3. CULTURAL AND PALEONTOLOGICAL RESOURCES—Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco <i>Planning Code</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact CP-1: The proposed project would not cause a substantial adverse change in the significance of an historic architectural resource. (*Less than Significant*)

Direct Effects on On-Site Historic Architectural Resources

The easternmost portion of the project site, 1500 Market Street (Lot 1), is currently occupied by an existing three-story, 2,750-sq.-ft. commercial building (All Star Cafe), built in 1980. As a structure less than 50 years of age (as of the date of this Notice of Preparation / Initial Study) and for which the City has no information indicating that the structure qualifies as an historical resource, the 1500 Market Street building is considered a “Category C” property under the San

Francisco Planning Department's *CEQA Review Procedures for Historic Resources*, and is not considered an historical resource for the purposes of CEQA.²⁸

The westernmost portion of the project site at 1540 Market Street (Lot 5) is occupied by a vacant, four-story, 48,225-sq.-ft. commercial building, built in 1920. The building is not included in, nor determined eligible for inclusion in, any federal, state, or adopted local register of historic resources (including the National Register of Historic Places, the California Register of Historical Resources [CRHR], and Planning Code Articles 10 and 11), pursuant to CEQA Guidelines Section 15064.5(a)(1) and (2). Because the 1540 Market Street building is greater than 50 years of age, an Historic Resource Evaluation (HRE) was prepared to determine if the building is eligible for listing in the CRHR.²⁹

The HRE determined that the 1540 Market Street building is not eligible for listing in the CRHR as an individual resource nor as contributor to a district. Under CRHR Criterion 1 (Events) the HRE found that the building is not associated with significant events in the history of San Francisco or the State of California, including events related to Van Ness Auto Row, despite being located within the Van Ness Auto Row Support Structures Survey area. Under CRHR Criterion 2 (Persons), the HRE found that the building was not associated with the lives of important persons. Under CRHR Criterion 3 (Architecture), the HRE found that the building has been substantially altered from its original form and few of its original character-defining architectural features are evident in the present day. Therefore, the HRE found that the building no longer embodies the distinctive characteristics of its original type, period, and method of construction.³⁰

For these reasons, the project site contains no historic architectural resources. The proposed project would have no direct effect on an on-site historic architectural resource.

Indirect Effects on Off-Site Resources

While the proposed project would have no direct physical impact on any historic architectural resources, the proposed project could have an indirect visual impact on nearby off-site resources

²⁸ San Francisco Planning Department, Draft *CEQA Review Procedures for Historic Resources*, March 31, 2008, pp. 3-8.

²⁹ Kelley & VerPlanck, *Historical Resource Evaluation, 1540 Market Street San Francisco, California*, September 2009, Revised March 2010, p. 19. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2009.0159E.

³⁰ The HRE did not evaluate the 1540 Market Street building under Criterion 4 (Information Potential). Study of the physical fabric of the building is unlikely to yield important scientific information about history or prehistory. Criterion 4 is generally understood to apply primarily to archaeological resources (although it may apply to architectural resources under limited circumstances not applicable here). The potential for the presence of subsurface archaeological resources within the project site is addressed below under Impact CP-2.

by altering the existing immediate visual setting of 50 Oak Street and 25 Van Ness Avenue. 50 Oak Street is a five-story Neoclassical building built in 1914, rated a Category II, Significant building under Article 11 of the Planning Code. 25 Van Ness Avenue is an eight-story Renaissance Revival building built in 1910, rated a Category I, Significant building under Article 11 of the Planning Code. 25 Van Ness Avenue is visually prominent from Oak Street, Market Street, and Van Ness Avenue.

The proposed project calls for placement of a 400-foot-tall high-rise tower within the block to the south of these historic architectural resources. In addition, the proposed project would introduce a new wind canopy feature into the Oak Street right-of-way. When viewed from the streetscape improvement area within the project site, the proposed project would alter and obscure existing views of 50 Oak Street and 25 Van Ness. When viewed from off site at greater distances, (e.g., from across Van Ness Avenue and the Van Ness Avenue/Market Street intersection, and from Oak Street to the west of the project site) the proposed project would partially obscure primary façades and alter the existing visual setting of these resources. The proposed project would also diminish the existing visual prominence of the 25 Oak Street building as it is currently viewed from these areas.

As individually significant buildings, the integrity and significance of 50 Oak Street and 25 Van Ness Avenue are not premised on their possessing an intact visual setting or a cohesive visual relationship with their surroundings. Rather, the original visual setting of these resources has been transformed by more recent nearby development. The proposed project would not destroy historic features and materials that characterize nearby historic architectural resources. The proposed wind canopy would be separated from the Oak Street façade of 25 Van Ness by about 32 feet and from 50 Oak Street by about 55 feet. It would be contemporary in design and materials and would not convey a false sense of historic development. The character-defining features and form of nearby historic architectural resources would continue to be clearly evident from surrounding streets, although less visually prominent than under current conditions.

Conclusion

For these reasons, the indirect visual impacts of the proposed project are not those of a project that “demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by the lead agency for purposes of CEQA.” (CEQA Guidelines Section 15064.5(b)(2)(C)) Implementation of the proposed project would not have a substantial adverse effect on the significance of an historic architectural resource under CEQA. The impact of the proposed project would be less than significant. No mitigation measures are required.

Impact CP-2: Construction activities for the proposed project could cause a substantial adverse change in the significance of archaeological resources and human remains, if such resources are present within the project site. (*Less than Significant with Mitigation*)

Despite the historic disruption of the project site over 150 years of development, the potential remains that as-yet unknown and historically significant archaeological deposits may be present beneath the project site. The proposed project would have the potential to adversely affect significant archaeological resources if they are present on the site. A draft Archaeological Research Design and Treatment Plan (ARD/TP) has been prepared and submitted to the Environmental Review Officer for review and approval. The draft ARD/TP notes that although the project site “was developed during the 1800s, it is unknown if such development would have destroyed any prehistoric deposits within the upper levels of dune sand that existed on the property prior to the 1850s.”³¹ Additionally, the report notes that, in the event that soil conditions require an alternative approach to foundation construction and the installation of piles with soil improvement techniques is necessary, prehistoric deposits situated in the dune sand, the relic marsh, and the Colma Formation strata (if they exist under the project site) may be disturbed during construction.³² The draft ARD/TP also notes that potentially historic archaeological resources associated with early development prior to the 1906 Earthquake and Fire are likely present below layers of fill on the project site.³³

The *Market Octavia FEIR* noted that implementation of the *Market and Octavia Neighborhood Plan* (adopted as the *Market and Octavia Area Plan*) could potentially result in significant impacts to archaeological resources as a result of soil disturbance associated with development. Implementation of Mitigation Measures 5.6.A1 through 5.6.A4, as identified in the *Market Octavia FEIR*, would reduce these potential impacts to archaeological resources to a less-than-significant level.³⁴ Measures recommended by the draft ARD/TP are incorporated into Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery, and Reporting, listed below, which requires site preparation and building construction to be conducted in accordance with the requirements of the approved ARD/TP. Implementation of this measure would reduce potential effects on archaeological resources, including human remains, to a less-than-significant level.

³¹ William Self Associates, *Draft Archaeological Research Design and Treatment Plan for the 1510-1540 Market Street Project, City and County of San Francisco, California*, February 2012 (hereinafter “*Draft ARD/TP for 1510-1540 Market Street*”), p. 74. Available for review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2009.0159E.

³² William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*, p. 79.

³³ William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*, p. 74.

³⁴ San Francisco Planning Department, *Market and Octavia Neighborhood Plan Final EIR*, 2005, pp. 4-165 to 4-170. Available online at <http://www.sf-planning.org/index.aspx?page=1714>.

Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery, and Reporting.

Based on a reasonable presumption that pre-historic and historic archaeological resources may be present within the project site, the following measures shall be undertaken, consistent with the MO Plan EIR mitigation measures to avoid any potentially significant adverse effect from the proposed project on buried cultural resources.

- a. The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment, and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer.

Predicting the location of potentially significant subsurface archaeological resources is never completely accurate; therefore, the possibility remains that important resources may be encountered in locations that have not been tested, and may become apparent during the course of construction. The Archaeological consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure, or if archaeological resources are encountered during construction.

- b. Due to the potential for intact cultural resources within and beneath the fill layer underlying the existing building and parking lot on the property, the archaeological consultant shall undertake an archaeological testing program prior to and coinciding with mass excavation on the site. The archaeological testing shall include the following measures:
 1. A systematic core-sampling program shall be undertaken prior to excavation activity on the site to address uncertainties about prehistoric-period archaeological sensitivity of the geological strata that underlie the project site. A hydraulic coring device, or "Geoprobe," utilizing a dual-wall system to improve recovery will be used to obtain six core samples extending to the maximum depth of disturbance across the footprint of the area that will be impacted by mass excavation or pile driving (if a pile foundation system is required).
 2. Testing for historic-period resources includes mechanical excavation of test trenches and areal excavations in two specific areas of the project site identified in the ARD/TP that have the most potential to contain intact archaeological deposits and features that would be disturbed by excavation and construction activities.
- c. If potentially significant cultural resources are encountered during the testing program, the archaeological consultant shall determine if redirection of construction excavation is needed, and shall evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with EP and the project sponsor. In consultation with EP, the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, including data recovery, as needed. If data recovery is the preferred mitigation alternative, the consultant shall develop an Archaeological Data Recovery Plan (ADRP) for submittal to EP for review and approval. Once approved the consultant shall implement the measures in the plan to

recover any potentially significant data. The ADRP will reference the prehistoric and historic contexts and research design in the ARD/TP and will provide a detailed data recovery plan. The data recovery plan will include the following procedures:

1. Determination of the structure and stratigraphic integrity, the date of the deposition, and the range and quantity of associated artifacts, if possible;
 2. An appropriate portion of each feature will be excavated manually to assess its content and integrity;
 3. A detailed profile of the feature will be produced, and each layer investigated for contents and temporal affiliation;
 4. The field crew will produce plans to-scale, take digital photographs, and map all features and deposits using WSA's Trimble Geo-XT GPS Data Logger, which provides sub-meter accuracy;
 5. Diagnostic artifacts will be removed, bagged, and catalogued; and
 6. Soil color and texture samples will be recovered and soil profiles will be drawn, if applicable.
- d. Based on the results of the archaeological testing program, if EP, in consultation with the project archaeologist, determines that an archaeological monitoring program shall be implemented, the project archaeologist shall prepare an Archaeological Monitoring Plan (AMP) that will provide guidance to the archaeological monitor and the construction manager as to the procedures that are to be followed in the event that previously unknown or unanticipated buried cultural resources are encountered during excavation. In general, the AMP will include the following guidelines and recommendations:
1. Construction work should be stopped until the project archaeologist has had an opportunity to evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with the construction manager, the archaeological monitor, and EP. At that time, it will also be determined if redirection of construction excavation is needed;
 2. Upon observing what is reasonably believed to be a cultural deposit or feature, the archaeological monitor shall immediately request the equipment operator to stop excavation and shall notify the construction manager, who shall direct that all construction activity stop within 25 ft. of the resource in order to permit an examination of the find. The archaeological monitor is not permitted to direct other movements of earth-moving machinery.
 3. If the archaeological monitor determines that the cultural object or feature is potentially significant, the archaeological monitor must then immediately notify the project archaeological consultant who shall initiate appropriate consultations with the construction manager and EP to determine the appropriate avoidance or mitigation measures. All information needed, including soil color or type, elevation, location, photographs, sketch maps, etc., shall be gathered as quickly as conditions permit to allow a final determination of the significance of the find.
 4. EP and the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, and may include data recovery. If potentially significant cultural resources are identified during construction monitoring and it is decided that data recovery is the preferred mitigation alternative, the project

archaeological consultant shall develop an ADRP per the criteria outlined above in measure 3, for submittal to EP for review and approval, and shall implement the measures in the approved plan to recover any potentially significant data found during construction.

- e. In the unlikely event that human remains are encountered during implementation of archaeological testing, the remains must be treated in accordance with the requirements of CEQA Section 15064.5 and Section 7050.5(b) of the California Health and Safety Code, which states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

1. The county coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the NAHC within 24 hours, who then assigns a Native American Most Likely Descendant (MLD) to the Project. The MLD, or in lieu of the MLD, the NAHC, has responsibility to provide guidance as to the ultimate disposition of any Native American remains.
 2. In the event the remains are determined to be non-Native American, under CEQA Section 15064.5 (a) (4), the City and County of San Francisco, as lead agency, may determine that the remains constitute an historical resource. As such, the remains may have the potential to provide essential information on Gold Rush-era and later 19th-century diet, disease, mortality, and internment practices, among other important research topics.
- f. Upon completion of archaeological testing and monitoring, a draft Final Archaeological Resources Report (FARR) documenting the results of implementing the ARD/TP shall be prepared by the project archaeologist and submitted to EP for review. The content of the FARR shall be consistent with the City of San Francisco Guidelines. A final draft of the FARR shall be produced in response to comments provided by EP.
 - g. Exposure of sub-surface archaeological deposits increases the risks of looting and destruction of valuable and spatially-sensitive archaeological information.³⁵ Consequently, prior to site preparation and excavation, a security fence shall be erected around the project parcel. Once surface hardscapes have been removed and archaeological testing begins, a security guard shall be employed to provide security during those periods when the site is otherwise unoccupied. It shall be the security

³⁵ William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*.

guard's responsibility to insure that no unauthorized excavations occur and no cultural material is removed from the site.

- h. Upon the completion of the final report on archaeological investigations, the collection will be transferred to an appropriate facility for permanent curation where it will be available for study by researchers in the future. This facility will meet the standards set forth in *Curation of Federally Owned and Administered Archaeological Collections*.³⁶ In addition to the artifacts, soil samples, etc., the facility will also receive copies of field notes and drawings, special studies, and the final report. The designated repository for the San Francisco Bay Area is the Archaeological Collections Facility at Sonoma State University.

Implementation of Mitigation Measure M-CP-2 would reduce the impact to previously undiscovered archaeological resources, including human remains, to a less-than-significant level.

Impact CP-3: Construction activities of the proposed project could affect a unique paleontological resource or a unique geologic feature. (*Less than Significant with Mitigation*)

Excavation under the proposed project has the potential to disturb significant paleontological resources, if such resources are present within the project site. Site disturbance could impair the ability of significant paleontological resources within the project site to yield important scientific information. Unless mitigated, implementation of the proposed project could potentially impair the significance of paleontological resources in the project area and would therefore be considered a potentially significant impact under CEQA. Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program, shown below, calls for a qualified paleontologist to implement an approved Paleontological Resources Monitoring and Mitigation Program (PRMMP). Implementation of the approved plan for monitoring, recovery, identification, and curation under Mitigation Measure M-CP-3 would ensure that the scientific significance of the resource under CRHR Criterion 4 (Information Potential) would be preserved and/or realized. With implementation of Mitigation Measure M-CP-3, implementation of the proposed project would not cause a substantial adverse change to the scientific significance of a paleontological resource. Therefore, this impact would be less than significant with mitigation.

Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program

The project sponsor shall retain the services of a qualified paleontological consultant having expertise in California paleontology to design and implement a Paleontological Resources Monitoring and Mitigation Program. The PRMMP shall include a description of when and where construction monitoring would be required; emergency discovery procedures; sampling and data recovery procedures; procedure for the preparation, identification, analysis, and curation of fossil specimens and data recovered; preconstruction coordination procedures; and procedures for reporting the results of the monitoring program.

³⁶ 36 CFR 79, as cited in William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*, p. 74.

The PRMMP shall be consistent with the Society for Vertebrate Paleontology Standard Guidelines for the mitigation of construction-related adverse impacts to paleontological resources and the requirements of the designated repository for any fossils collected. During construction, earth-moving activities shall be monitored by a qualified paleontological consultant having expertise in California paleontology in the areas where these activities have the potential to disturb previously undisturbed native sediment or sedimentary rocks. Monitoring need not be conducted in areas where the ground has been previously disturbed, in areas of artificial fill, in areas underlain by nonsedimentary rocks, or in areas where exposed sediment would be buried, but otherwise undisturbed.

The consultant's work shall be conducted in accordance with this measure and at the direction of the City's ERO. Plans and reports prepared by the consultant 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. Paleontological monitoring and/or data recovery programs required by this measure could suspend construction of the proposed project for as short a duration as reasonably possible and in no event for more than a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce potential effects on a significant paleontological resource as previously defined to a less-than-significant level.

Cumulative Impacts

Impact C-CP-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to significant cumulative impacts on cultural resources. (*Less than Significant with Mitigation*)

The proposed project would have no direct physical impact on an historic architectural resource. The character-defining features and form of nearby off-site historic architectural resources would continue to be evident with the proposed project.

The adjacent project at 1546-1564 Market Street, immediately west of the project site, would include demolition of two existing buildings, 1546-1564 Market Street and 55 Oak Street, and construction of a 12-story residential building. The existing building at 1546-1564 Market Street is one-story commercial building, built in 1907. It is individually eligible for listing on the CRHR under Criterion 1 (Events) for its association with the immediate rebuilding efforts after the 1906 Earthquake and Fire and Criterion 3 (Design/Construction), for embodying the distinctive characteristics of a single-story, multiple-unit commercial building constructed on Market Street during commercial reconstruction efforts following the 1906 Earthquake and Fire. The existing building at 55 Oak Street is a one-story, reinforced-concrete automotive repair shop, built in 1929. It is individually eligible for listing on the CRHR under Criterion 1 (Events) for its association with early automotive repair facilities and under Criterion 3 (Design/Construction) for clarity of expression as an automotive repair shop. For these reasons, the *1546-1564 Market Street Project Draft EIR* concluded that the demolition of the 1546-1564 Market Street and 55

Oak Street buildings would each result in a significant impact to an individual historical resource.³⁷

While these historic architectural resources are immediately adjacent to the project site, impacts on historical resources resulting from the adjacent 1546-1564 Market Street project are unrelated to those of the proposed project. The proposed project would not contribute to any cumulative loss of resources associated with the reconstruction after the 1906 Earthquake and Fire, or with early automotive uses along the Van Ness corridor.

Conversely, the 1546-1564 Market Street project would not contribute considerably to the proposed project's indirect visual impacts on the visual prominence of 50 Oak Street and 25 Van Ness Avenue. The proposed new building at 1546-1564 would be a midblock infill building that would not obstruct existing street-level views of 50 Oak Street and 25 Van Ness Avenue. Likewise, the 1546-1564 Market Street project would not contribute considerably to impacts of the proposed project on the visual setting of 50 Oak Street and 25 Van Ness Avenue. As discussed above under Impact CP-1, the significance of these individual resources is not premised on their possessing an intact visual setting or a cohesive visual relationship with their surroundings.

For these reasons, the proposed project would not contribute to any cumulative impact on historic architectural resources that could result from past, present, or reasonably foreseeable future projects in the vicinity of the project site.

The significance of impacts on archaeological and paleontological resources is premised on the potential loss of historic and scientific information. When considered with other past and proposed projects within San Francisco and the Bay Area region, the potential disturbance of archaeological and paleontological resources within the project site could make a cumulatively considerable contribution to a loss of significant historic and scientific information about California, Bay Area, and San Francisco history and prehistory. As discussed above, implementation of the approved plans for testing, monitoring, and data recovery would preserve and realize the information potential of archaeological and paleontological resources. The recovery, documentation, and interpretation of information about archaeological and paleontological resources that may be encountered within the project site would enhance knowledge of prehistory and history. This information would be available to future archaeological and paleontological studies, contributing to the collective body of scientific and historic knowledge. With implementation of Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery and Reporting and Mitigation Measure M-CP-3:

³⁷ City and County of San Francisco Planning Department, *1546-1564 Market Street Draft Environmental Impact Report*, January 7, 2015. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2012.0877E.

Paleontological Resources Monitoring and Mitigation Program, the proposed project's contribution to cumulative impacts, if any, would not be cumulatively considerable. Therefore, this impact would be less than significant.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
4. 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not located within an airport land use plan area or in the vicinity of a private airstrip. Therefore, Topic 5c is not applicable to the proposed project.

Construction and operation of the proposed project would increase auto, transit, pedestrian, and bicycle trips to and from the project site and would modify existing access and egress points to the project site related to pedestrian access, vehicular access, parking, and loading. The proposed project would also change the existing circulation pattern of Oak Street by closing a segment of Oak Street to regular vehicular traffic to create a new publicly accessible open space within the existing Oak Street roadway. The proposed project has the potential to result in unacceptable levels of service at local intersections, could increase transportation hazards, and could conflict with adopted policies related to transit, bicycle, or pedestrian facilities. The potential project-generated and cumulative transportation impacts will be discussed in the EIR, based on the results of a Transportation Impact Study.

Impact TR-1: The proposed project could result in unacceptable levels of service at local intersections, which would conflict with an established measure of effectiveness of performance of the circulation system; could increase transportation hazards due to a design feature; could result in inadequate emergency access to the project site; or could conflict with adopted policies related to transit, bicycle, or pedestrian facilities. (Potentially Significant)

A transportation impact study will be prepared for the proposed project and summarized in the EIR. The study will examine existing conditions and assess the proposed project’s net-new daily and PM peak hour trips and their impacts on intersection operations, transit, passenger loading operations, circulation, large-truck equipment loading operations, bicycle and pedestrian safety, emergency vehicle access, and parking.

Cumulative Impacts

Impact C-TR-1: The proposed project, in combination with past, present and reasonably foreseeable future projects in the site vicinity, could result in a cumulatively considerable contribution to a significant transportation and circulation impact. (Potentially Significant)

The transportation impact study will evaluate the project’s contribution of net-new trips in conjunction with those projected to occur from reasonably foreseeable projects and background growth anticipated within both the neighborhood and citywide context. The EIR cumulative transportation analysis will also take into consideration the anticipated future implementation of transportation network changes under the TEP, the Van Ness BRT Project, and the Better Market Street Project. Combined, the data will then be used to determine impacts on intersection operations, transit, passenger loading operations, circulation, large-truck equipment loading operations, bicycle and pedestrian safety, emergency vehicle access, and parking.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
5. NOISE—Would the project:					
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
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 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 type="checkbox"/>	<input checked="" type="checkbox"/>
g) Be substantially affected by existing noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not located within an airport land use plan area or within 2 miles of a public use airport, nor is it within the vicinity of a private airstrip. Therefore, the proposed project would not expose people residing or working in the area to excessive aviation-related noise levels, and Topics 6e and 6f are not applicable to the proposed project.

SETTING

Fundamentals of Environmental Noise

Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted. It consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep. Sound is mechanical energy transmitted in the form of a wave by a disturbance or vibration that causes pressure variation in air the human ear can detect.

Noise Descriptors

The sound pressure level has become the most common descriptor used to characterize the loudness of an airborne ambient sound, and the decibel (dB) scale is used to quantify sound intensity. Because sound can vary in intensity by over one million times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies; therefore, sound is “weighted” to emphasize frequencies to which the ear is more sensitive in a process called “A-weighting,” expressed as “dBA.”

On this scale, the normal range of human hearing extends from about 0 dBA to about 140 dBA. Except in carefully controlled laboratory experiments, a change of only 1 dBA in sound level cannot be perceived. Outside of the laboratory, a 3 dBA change is considered a perceptible difference. A 10 dBA increase in the level of a continuous noise represents a perceived doubling of loudness. Variations in noise exposure over time are typically expressed in terms of a

steady-state energy level (called L_{eq}) that represents the acoustical energy of a given measurement. L_{eq} (24) is the steady-state acoustical energy level measured over a 24-hour period. Because humans are more sensitive to unwanted noise intrusion during the evening and at night, a 24-hour noise descriptor, called the day-night noise level (L_{dn}), is used. L_{dn} adds a 10 dBA penalty to all nighttime noise levels between 10 PM and 7 AM. The noise levels presented herein are expressed in terms of dBA, unless otherwise indicated.

Attenuation of Noise

A person's distance from a noise source affects how noise levels attenuate (decrease). Transportation noise sources tend to be arranged linearly, such that roadway traffic attenuates at a rate of 3.0 dBA to 4.5 dBA per doubling of distance from the source. Point sources of noise, including stationary, fixed, and idle mobile sources, like idling vehicles or construction equipment, can attenuate at a rate of 6.0 dBA to 7.5 dBA per doubling of distance from the source, depending on the type of intervening ground surfaces and vegetation.³⁸ Meaningful reductions or attenuation of noise levels can also be accomplished by "shielding" or providing a barrier, which may be in the form of an intervening structure or terrain. Buildings next to a roadway may shield people from traffic noise, and closely spaced buildings may provide about 5 dBA of reduction.³⁹ Building façades also provide a barrier to ambient exterior noise.

Planning for Noise Exposure

The sensitivity of land uses is a primary consideration when assessing the compatibility of surrounding uses and noise sources. The Environmental Protection Element of the *San Francisco General Plan* contains Land Use Compatibility Guidelines for Community Noise for determining the compatibility of various land uses with different noise levels (see **Figure 14: San Francisco Land Use Compatibility Chart for Community Noise**). These guidelines, which are similar to state guidelines set forth by the Governor's Office of Planning and Research, indicate maximum acceptable noise levels for various land uses. For residential land uses, the maximum satisfactory exterior noise level without incorporating noise insulation features into a project is 60 dBA (L_{dn}). Where existing noise levels exceed 60 dBA (L_{dn}), residential development is generally discouraged. New residential development where exterior noise levels exceed 60 dBA (L_{dn}) must demonstrate, through the preparation of a detailed noise analysis, how the interior noise standard of 45 dBA (L_{dn}) would be met. Interior noise levels can be reduced through the use of noise insulating windows and by using sound insulation materials in walls and ceilings.

³⁸ Natural attenuation as sound propagates is based on the inverse square law and equations for geometric spreading of noise waves over hard and soft surfaces. (U.S. Housing and Urban Development, *The Noise Guidebook*, 1985, p. 24.)

³⁹ California Department of Transportation, Division of Environmental Analysis, "Technical Noise Supplement," November 2009, pp. 2-39 and 2-40. Available online at http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf. Accessed December 23, 2014.

Figure 14: San Francisco Land Use Compatibility Chart for Community Noise

Land Use Category	Sound Levels and Land Use Consequences (L _{dn} Values in dB)						
	55	60	65	70	75	80	85
Residential – All Dwellings, Group Quarters	Satisfactory		Discouraged				
Transient Lodging - Motels, Hotels	Satisfactory		Discouraged				
School Classrooms, Libraries, Churches, Hospitals, Nursing Homes, etc.	Satisfactory		Not Undertaken				
Auditoriums, Concert Halls, Amphitheaters, Music Shells	Satisfactory		Not Undertaken				
Sports Arenas, Outdoor Spectator Sports	Satisfactory		Discouraged				
Playgrounds, Parks	Satisfactory		Discouraged				
Golf Courses, Riding Stables, Water-Based Recreation Areas, Cemeteries	Satisfactory		Discouraged				
Office Buildings – Personal, Business, and Professional Services	Satisfactory		Discouraged				
Commercial – Wholesale and Some Retail, Industrial/Manufacturing, Transportation, Communication, and Utilities	Satisfactory		Discouraged				
Manufacturing – Noise-Sensitive Communications – Noise-Sensitive	Satisfactory		Not Undertaken				

Satisfactory, with no special noise insulation requirements.

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

New construction or development should generally not be undertaken.

Source: San Francisco Planning Department, 1996. *San Francisco General Plan*, adopted on June 27, 1996. Available online at http://www.sf-planning.org/ftp/general_plan/I6_Environmental_Protection.htm. Accessed November 4, 2014.

Existing Ambient Noise Levels

The project site is located in San Francisco's Downtown/Civic Center neighborhood on the south side of Oak Street near the intersection of Market Street and Van Ness Avenue. Major Muni transit routes are located on Van Ness Avenue and Market Street, both on the street and in the Muni Metro subway. Ambient noise levels in the vicinity of the project site are typical of noise levels in San Francisco's Downtown/Civic Center neighborhood, which are dominated by noise produced by vehicular traffic, including trucks, cars, buses, and emergency and delivery vehicles.

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In 2009 the San Francisco Planning Department produced a citywide map of background noise levels.⁴⁰ The map indicates that the project site is generally subject to elevated ambient noise levels, with background noise levels between a range of 50-55 dBA (L_{dn}) on the low end to over 70 dBA (L_{dn}) on the high end. According to this map, the project area is characterized by an ambient noise level of over 70 dBA (L_{dn}) on Market Street, Franklin Street, and Van Ness Avenue, and between 65 and 70 dBA (L_{dn}) on Oak Street. This is primarily due to traffic noise from Market Street and Van Ness Avenue, streetcar noise from the Muni F-line, and, to a lesser extent, traffic noise from Franklin Street, approximately 210 feet west of the project site.

The closest noise-sensitive land uses are the multi-family residential building at 20 Franklin Street (approximately 135 feet west of the project site) and the Conservatory of Music on the north side of Oak Street (approximately 70 feet northwest of the project site). Other noise-sensitive land uses in the project area include multi-family residential buildings at 23 Franklin Street (approximately 320 feet west of the project site), 41 Franklin Street

⁴⁰ San Francisco *General Plan*, Map 1: Background Noise Levels-2009. Available online at http://www.sf-planning.org/ftp/General_Plan/images/I6.environmental/ENV_Map1_Background_Noise%20Levels.pdf Accessed October 28, 2014.

(approximately 275 feet west of the project site), 150 Franklin Street (approximately 285 feet northwest of the project site), 171 Fell Street (approximately 260 feet northwest of the project site), 145 Fell Street (approximately 220 feet north of the project site), 77 Van Ness Avenue (approximately 220 feet north of the project site), and 1601 Market Street (approximately 225 feet southwest of the project site). The French American and Chinese American International School campuses (150 Oak Street) are approximately 310 feet west of the project site. There are no daycare facilities, hospitals, or public libraries in the immediate project area.

Ambient Noise Measurements

The acoustical engineering firm, Brown-Buntin Associates, Inc., prepared a noise and vibration assessment for the proposed project.⁴¹ Five site-specific, 15-minute (approximately), noise measurements were conducted on December 18, 2012 at the following locations:

- 1) North sidewalk of Market Street adjacent to project site and entrance to the Muni subway,
- 2) North sidewalk of Market Street approximately 28 feet west of the project site,
- 3) South sidewalk of Oak Street approximately 150 feet west of the project site,
- 4) North sidewalk of Oak Street approximately 70 feet north of the project site, and
- 5) South sidewalk of Oak Street at Van Ness Avenue adjacent to the project site.

Based on these measurements, the existing background noise levels indicate that ambient noise levels in the project vicinity are in the range of 65-70 dBA (L_{eq}), with the highest level recorded on the south sidewalk of Oak Street adjacent to the project site (Measurement Location 5) and closest to Van Ness Avenue.⁴² The lowest background level of 59.2 dBA (L_{eq}) occurs on the north side of the project site along Oak Street (Measurement Location 4), where the existing buildings on the south side of Oak Street provide some acoustic shielding from traffic on Market Street. Maximum peak noise levels at all of the sites except Measurement Location 4 were in the range of 74-79 dBA, and were caused by passing trucks or buses and Muni streetcars. The estimated L_{dn} values at Measurement Locations 1, 2, 3 and 5 are in the range of 65-68 dBA.⁴³ The background noise analysis performed in 2012/2013 is still valid in 2015, as no substantial changes in surrounding land use or circulation patterns have taken place. These levels are consistent with those reported in the City's *General Plan* and data presented on the citywide Background Noise Levels-2009 map.

⁴¹ Brown-Buntin Associates, Inc., *Environmental Noise and Vibration Assessment, 1510-1540 Market Street, San Francisco, California*, April 2013. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

⁴² *Ibid.*, p. 6.

⁴³ *Ibid.*, p. 6.

Fundamentals of Vibration and Groundborne Noise

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Several different methods are used to quantify vibration. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration that displaces the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS.⁴⁴ Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

Receptors sensitive to vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment. High levels of vibration can damage fragile buildings or interfere with sensitive equipment. With the exception of long-term occupational exposure, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. People may tolerate infrequent, short duration vibration levels, but human annoyance to vibration becomes more pronounced if the vibration is continuous or occurs frequently. The rumbling sound caused by the vibration of room surfaces is called groundborne noise, which can occur as a result of the low-frequency components from a specific steady source of vibration, such as a rail line.

The City does not have regulations that define acceptable levels of vibration. Therefore, this document references a Federal Transit Administration (FTA) publication concerning noise and vibration impact assessment from transit activities for informational purposes.⁴⁵ Although the FTA guidelines are intended to apply to transit operations, the guidelines may be reasonably applied to the assessment of the potential for annoyance or structural damage to other facilities and "fragile" buildings resulting from other activities. The FTA guidelines do not define what constitutes a "fragile" building other than to state that many fragile buildings are old.

Existing Vibration Sources

Typical sources of groundborne vibration in San Francisco are large-scale construction projects that involve pile driving or underground tunneling, and Muni Metro's historic F-line streetcars, which operate on Market Street approximately 25 feet from the project site and approximately 50 feet from the building site component of the project site. Vibration is also caused by Muni Metro light rail transit vehicles in the subway system under Market Street. Because rubber tires

⁴⁴ Vibration velocity level is reported in decibels relative to a level of 1×10^{-6} inches per second and is denoted as VdB.

⁴⁵ FTA, *Transit Noise and Vibration Impact Assessment*, May 2006. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2014.

provide vibration isolation, rubber-tire vehicles, such as Muni buses, trucks, and automobiles, rarely create substantial groundborne vibration effects unless there is a discontinuity or bump in the road that causes the vibration.⁴⁶

A survey of groundborne vibration levels from operations of Muni's historic streetcars was conducted in 2006 to determine the range of vibration levels that may be expected at sensitive land uses along the alignment.⁴⁷ The maximum vibration level monitored along a straightaway segment was 81 vibration decibels (VdB) at 25 feet. The building site component along Market Street is approximately 50 feet north of the streetcar tracks. Using the above-referenced FTA guidelines and the data collected from previous studies (including a 2010 study by Brown-Buntin on the M-line), the noise and vibration assessment determined that typical vibration levels at approximately 50 feet from the Muni line setback could conservatively be in the range of 83-88 Vdb at the project site.⁴⁸ The estimated vibration levels from Muni rail operations do not include attenuation due to material damping from soil between the source and receiver, and would likely represent a worst-case assessment.

Grade surface vibration estimates from Muni light rail trains operating in tunnels have been estimated at various depths in the environmental analysis for the *Central Subway Project Final SEIS/SEIR*. Where trains operate at a depth of 20 feet below grade, vibration levels within concrete and steel buildings are expected to be 62 VdB at a distance of 25 feet from the track. The project site is 40 feet northwest of the Muni subway tunnel, which is approximately 40 feet below Market Street at this location.⁴⁹ Therefore, values presented here represent a conservative potential for ground borne vibration levels on the project site from underground Muni operations along Market Street.

Existing Sensitive Receptors

Noise-sensitive land uses or receptors are those where noise exposure would result in adverse effects (i.e., injury or annoyance) to individuals and uses where quiet is an essential element of their intended purpose. Noise-sensitive land uses are residences, hotels and motels, schools, preschools, libraries, places of worship, hospitals, senior care centers, nursing homes, retirement

⁴⁶ Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment*, May 2006, p. 7-9. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2014.

⁴⁷ Wilson, Ihrig & Associates, Inc., *Noise and Vibration Setting Report*, San Francisco Muni Historic Streetcar Service to Fort Mason, April 2009. Available online at <http://www.nps.gov/goga/parkmgmt/upload/Final-Noise-and-Vibration.pdf>. Accessed December 23, 2014.

⁴⁸ Brown-Buntin Associates Inc., *Environmental Noise and Vibration Assessment, 1510-1540 Market Street, San Francisco, California*, April 2013 (hereinafter "*Noise and Vibration Assessment*"), p. 7. This document is available for review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2009.0159E.

⁴⁹ Langan Treadwell Rollo, *Preliminary Geotechnical Study 1510-1540 Market Street San Francisco, California*, September 9, 2011, p. 6.

residences, and other places where low interior noise levels are essential to the use. Land uses within the project area are described in Initial Study **Section B, Project Setting**, pp. 26-28.

Similar to noise-sensitive land uses described on pp. 74-75, vibration-sensitive land uses include residences, educational uses, places of worship, and hospitals because receptors within these land uses can experience annoyance from groundborne vibration. Vibration-sensitive uses also include fragile buildings and underground facilities, in particular those that are considered historic, because groundborne vibration can result in structural damage. No known historic or potentially fragile structures are immediately adjacent to the project site; however, 25 Van Ness Avenue (70 feet north of the project site) and the commercial building at 1576 Market Street (25 feet west of the project site) are both historic resources and were built in 1911 and 1907, respectively. Certain workplaces may also contain vibration-sensitive equipment (e.g., high-resolution lithography equipment, electron microscopes, or micro-electronics production equipment), although none of these vibration-sensitive facilities are known to be near the project site. Typical office-based computing and communication equipment is not considered highly sensitive to vibration.

Annoyance generally occurs in reaction to newly introduced sources of noise that interrupt ongoing activities. Community annoyance is a summary measure of the general adverse reaction of people to noise that causes speech interference, sleep disturbance, or interference with the desire for a tranquil environment.⁵⁰ People react to the duration of noise events, judging longer events to be more annoying than shorter ones, and transportation noise is usually a primary cause of community dissatisfaction. Construction noise or vibration also often generates complaints, especially during lengthy periods of heavy construction, when nighttime construction is undertaken to avoid disrupting workday activity, or when the adjacent community has no clear understanding of the extent or duration of the construction.⁵¹

IMPACTS

Impact NO-1: The proposed project would not expose persons to or generate noise levels in excess of standards established in San Francisco's Noise Ordinance; nor would the proposed project result in a substantial permanent increase in ambient noise levels above levels existing without the project. (*Less than Significant*)

The proposed project would necessitate demolition and construction work that would be a temporary source of noise; it would further introduce new mobile and stationary noise sources to the area in the form of additional traffic and new building mechanical systems, i.e., heating, ventilating, and air conditioning (HVAC) equipment and an emergency generator.

⁵⁰ FTA, *Transit Noise and Vibration Impact Assessment*, May 2006, pp. 2-13 to 2-17. Available online at www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2014.

⁵¹ *Ibid.* p. 12-1.

In order for the newly introduced project-related noise sources to be perceptible, an increase in ambient noise levels would need to be 3 dBA or greater, as discussed above under “Attenuation of Noise” on p. 69. Off-site noise-sensitive receptors include residents in the mixed-use residential buildings within approximately 300 feet of the project site boundaries. Other nearby noise-sensitive land uses include the French American and Chinese American International School campuses and the Conservatory of Music to the west and northwest, respectively.

Mobile Noise Sources

The project site is located in an area with elevated background noise levels predominantly influenced by traffic. Thus, existing off-site noise-sensitive receptors are currently exposed to these elevated ambient noise levels. In general, a project must double existing traffic volumes on the local roadway network to cause a noticeable (3 dBA or greater) increase over existing traffic noise levels and to cause a significant traffic noise impact.⁵² The proposed project would generate approximately 8,167 daily vehicle trips, with approximately 1,171 of those trips occurring during weekday PM peak hour.⁵³ Currently approximately 2,253 vehicles pass near the project site in the Oak Street/Fell Street intersection during the weekday PM peak hour.⁵⁴ If all project-related traffic during this period were assigned to these two adjacent roadways, the proposed project’s generation of approximately 1,711 weekday PM peak hour vehicle trips would represent an approximately 52 percent increase over existing traffic volumes, substantially less than a doubling of the approximately 2,253 weekday PM peak hour vehicle trips that now occur on Oak and Franklin Streets. Therefore, the proposed project would not double traffic volumes on the adjacent roadways, and changes to background noise levels would not be noticeable in the context of existing traffic noise levels.⁵⁵

Fixed Noise Sources

The proposed project would include new fixed noise sources that would produce operational noise on the project site. The proposed heating, ventilation, and air conditioning (HVAC)

⁵² California Department of Transportation, *Technical Noise Supplement*, November 2009, Sacramento, CA. p. 7-5. Available online at http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf. Accessed December 23, 2014.

⁵³ LCW Consulting, *[Preliminary Draft] One Oak Street Project Transportation Impact Study*, Table 9, p. 38, A copy of this report is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

⁵⁴ LCW Consulting, *[Preliminary Draft] One Oak Street Project Transportation Impact Study*, Figure 8. Existing Traffic Volumes – Weekday PM Peak Hours, p. 20. A copy of this report is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

⁵⁵ Ambient noise from traffic is based on a 24-hour traffic volume; however, because PM peak hour trips generally make up about 10 percent of total daily vehicle trips, it is reasonable to use the PM peak hour traffic volumes to assess whether the proposed project would result in a doubling of traffic volumes and thus produce a noticeable increase in traffic noise.

equipment and the emergency generator⁵⁶ would be located in a mechanical penthouse on the central portion of the roof. The rooftop enclosures would provide acoustical shielding. Operation of this equipment would be subject to the City's Noise Ordinance (Article 29 of the San Francisco Police Code), amended in November 2008. Section 2909 (a)(1) regulates noise from mechanical equipment and other similar sources on residential property. Mechanical equipment operating on residential property must not produce a noise level more than 5 dBA above the ambient noise level at the property boundary. Section 2909 (d) states that no fixed noise source may cause the noise level measured inside any sleeping or living room in a dwelling unit on residential property to exceed 45 dBA between 10 PM and 7 AM or 55 dBA between 7 AM and 10 PM with windows open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed. The proposed project would comply with the regulations and would not exceed limits for fixed noise sources set forth in the Noise Ordinance.

For the reasons discussed above, operational noise from the project-related vehicle trips would not be substantial enough to generate noticeable increases over existing traffic noise levels and fixed noise sources would not expose off-site noise-sensitive receptors to noise levels in excess of standards established in the Noise Ordinance. When considered in conjunction with existing nearby noise sources, operational noise generated by the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above those that currently exist without the proposed project. Therefore, the proposed project's operational noise impacts on existing off-site noise-sensitive receptors would be less than significant. No mitigation is necessary, and this topic will not be discussed in the EIR.

Impact NO-2: Project demolition and construction would temporarily and periodically increase ambient noise and vibration in the project vicinity compared to existing conditions. (*Less than Significant with Mitigation*)

Construction Noise

Construction noise is regulated by Sections 2907 and 2908 of the City's Noise Ordinance. Section 2907 (a) requires that noise levels from individual pieces of powered construction equipment, other than impact tools and equipment, not exceed 80 dBA at a distance of 100 feet from the source between 7 AM and 8 PM. Section 2907 (b) requires that the intakes and exhausts of impact tools and equipment be equipped with mufflers, and that pavement breakers and jackhammers be equipped with acoustically-attenuating shields or shrouds to the satisfaction of the Director of Public Works or Building Inspection, as feasible, to best accomplish maximum noise attenuation. Section 2908 prohibits construction work between 8 PM and 7 AM if the noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special

⁵⁶ Although emergency generators are intended only to be used in periods of power outages, monthly testing of the emergency generator would be required.

permit is authorized by the Director of Public Works. The proposed project would comply with the regulations set forth in the Noise Ordinance.

Typical construction equipment (without noise controls or features such as mufflers, silencers, shields, shrouds, ducts and engine enclosures) generates noise ranging from about 70 to 92 dBA at a distance of 100 feet from the source (see **Table 2: Typical Noise Levels of Construction Equipment**).

Table 2: Typical Noise Levels of Construction Equipment (in dBA)

Equipment	Noise Level at 50 Feet		Noise Level at 100 Feet		Noise Ordinance Maximum Noise Level at 100 feet ^b
	Without Controls	With Controls ^a	Without Controls	With Controls ^a	
Earthmoving					
Front Loaders	79	75	73	69	80
Backhoes	85	75	79	69	80
Dozers	80	75	74	69	80
Tractors	80	75	74	69	80
Graders	85	75	79	69	80
Trucks	91 ^c	75	85	69	80
Materials Handling					
Concrete Mixers	85	75	79	69	80
Concrete Pumps	82	75	76	69	80
Cranes	83	75	77	69	80
Derricks	88	75	82	69	80
Stationary					
Pumps	76	75	70	69	80
Generators	78	75	72	69	80
Compressors	81	75	75	69	80
Impact^d					
Rock Drills	98	80	92	74	d, e
Jack Hammers	88	75	82	69	d, e
Pneumatic Tools	86	80	80	74	d, e
Other					
Saws	78	75	72	69	80
Vibrators	76	75	70	69	80

Notes:

- ^a “With Controls” means that estimated levels can be obtained by selecting quieter procedures or machines by implementing noise-control features that do not require major redesign or extreme cost (e.g., improved mufflers, equipment redesign, use of silencers, shields, shrouds, ducts, and engine enclosures).
- ^b Construction noise at a distance of 100 feet from individual pieces of powered construction equipment, other than impact tools and equipment, are not to exceed 80 dBA per Sections 2907 and 2908 of the City’s Noise Ordinance between 7 AM and 8 PM.
- ^c This noise level represents the maximum noise level (Lmax) associated with a single passing truck.
- ^d Pile driving is not expected to be used during construction of the proposed project.
- ^e Section 2907 (b) of the City’s Noise Ordinance requires use of best practices to achieve maximum noise attenuation to the satisfaction of the Director of Public Works or Building Inspection.

Source: U.S. Environmental Protection Agency, 1971

Noise-generating construction activities typically include the use of heavy construction equipment for demolition, earthmoving activities, and materials handling; stationary equipment for on-site power generation; and impact tools and other equipment for demolition, site

preparation, and shoring activities. Many of these pieces of construction equipment would be expected to be in use at the project site during the early stages of construction. Pile driving, which is the most disruptive activity in terms of construction noise, would not be part of the proposed project as the proposed building would be supported on a mat foundation. As shown in Table 2, noise levels without controls generated by heavy construction equipment and stationary equipment at a distance of 100 feet from the activity would be up to 85 dBA. Adding controls would reduce the maximum level to 69 dBA at a distance of 100 feet. Noise levels without controls from impact tools and other tools used for demolition, site preparation, and shoring activities, such as concrete breaking and drilling, would generate noise levels up to 92 dBA at a distance of 100 feet from the activity, while adding controls would reduce the maximum level to 74 dBA at a distance of 100 feet. Thus, construction equipment noise levels (with controls) would be expected to range from about 69 to 74 dBA at a distance of 100 feet and would be below the Noise Ordinance maximum noise level of 80 dBA at 100 feet from the source.

Project-related construction activities would temporarily and intermittently contribute to ambient noise levels over the 32 months of construction, with more construction noise generated in the initial 22 months of project construction and relatively lower levels of construction noise in the subsequent 10 months. Due to the distance of existing residential land uses from the project site boundaries (more than 100 feet) and the presence of intervening buildings, construction noise would be minimized for most off-site noise sensitive receptors.

Although off-site noise sensitive-receptors can reduce daytime interior noise levels to acceptable levels by closing exterior windows given the proximity of construction activities to adjacent sensitive land uses (e.g., the Conservatory of Music, which appears to have operable windows on the higher stories, although they may be seldom used) and their potential exposure to elevated noise levels during construction, the project sponsor has agreed to implement Mitigation Measure M-NO-2: General Construction Noise Control Measures.

Mitigation Measure M-NO-2: General Construction Noise Control Measures

To ensure that project noise from construction activities is minimized to the maximum extent feasible, the project sponsor and/or its construction contractors shall undertake the following:

- The project sponsor shall require the general contractor to ensure that equipment and trucks used for project construction utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).
- The project sponsor shall require the general contractor to locate stationary noise sources (such as compressors) as far from adjacent or nearby sensitive receptors as possible, to muffle such noise sources, and to construct barriers around such sources and/or the construction site, which could reduce construction noise by as much as 5 dBA. To further reduce noise, the contractor shall locate stationary equipment in pit areas or excavated areas, if feasible.

- The project sponsor shall require the general contractor to use impact tools (e.g., jack hammers, pavement breakers, and rock drills) that are hydraulically- or electrically-powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used, along with external noise jackets on the tools, which could reduce noise levels by as much as 10 dBA.
- The project sponsor shall include noise control requirements in specifications provided to construction contractors. Such requirements could include, but not be limited to, performing all work in a manner that minimizes noise to the extent feasible; use of equipment with effective mufflers; undertaking the most noisy activities during times of least disturbance to surrounding residents and occupants, as feasible; and selecting haul routes that avoid residential buildings inasmuch as such routes are otherwise feasible.
- Prior to the issuance of building permits, along with the submission of construction documents, the project sponsor shall submit to the Planning Department and Department of Building Inspection (DBI) a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include (1) a procedure and phone numbers for notifying DBI, the Department of Public Health, and the Police Department (during regular construction hours and off-hours); (2) a sign posted on-site describing noise complaint procedures and a complaint hotline number that shall be answered at all times during construction; (3) designation of an on-site construction complaint and enforcement manager for the project; and (4) notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of extreme noise-generating activities (defined as activities generating noise levels of 90 dBA or greater) about the estimated duration of the activity.

Therefore, although construction noise may be perceived by some as an occasional annoyance, with implementation of Mitigation Measure M-NO-2, project-related construction noise would be less than significant and would not exceed noise levels commonly experienced in an urban environment.

Groundborne Vibration During Construction

The proposed project would not involve the types of construction activities that could produce excessive groundborne vibration, i.e., pile driving for a foundation or the use of explosives for building demolition. However, construction equipment used for demolition, site preparation, and shoring activities, such as jackhammers, pavement breakers, and drills, could generate varying degrees of temporary groundborne vibration, with the highest levels expected in the first 22 months of construction during the demolition, excavation, and below-grade construction phases. The proposed project would also require the use of heavy trucks for material deliveries and for off-site hauling of demolition debris throughout the day and throughout the 32-month construction period. Vibration from most rubber-tired construction vehicles moving slowly through the construction area would not be expected to result in excessive groundborne vibration.

All construction activities would be conducted between 7 AM and 8 PM in compliance with Section 2908 of the City's Noise Ordinance.

Since the proposed project would use standard construction equipment and would not include activities such as pile driving, the vibration impact would be temporary and would not be excessive. Therefore, the proposed project would result in a less-than-significant impact with respect to human annoyance from excessive groundborne vibration during construction. Groundborne vibration from the types of equipment that would be used for construction of the proposed project would not be expected to result in damage to adjacent buildings because the only adjacent buildings would be demolished as part of a concurrent project (1546-1564 Market Street). Therefore, the potential impact to buildings from groundborne vibration from construction would be less than significant.

In summary, the proposed project's construction-related noise and groundborne vibration impacts would be less than significant with mitigation. These topics will not be discussed in the EIR.

Impact NO-3: The proposed project's new residents would not be substantially affected by existing noise or vibration levels. (*Less than Significant with Mitigation*)

Exposure to Existing Noise Levels

The proposed project would introduce new residential, commercial, and parking land uses to a developed, mixed-use neighborhood. As discussed above on p. 72 ("Ambient Noise Measurements"), existing ambient noise levels around the project site were found to be approximately 65-68 dBA (L_{dn}) at four of the five measurement locations. The exterior noise levels are in excess of the 60 dBA (L_{dn}) threshold requiring preparation of a detailed noise analysis, as specified in the *General Plan* Land Use Compatibility Guidelines for Community Noise. Additionally, new multi-unit residential developments are subject to the California Noise Insulation Standards in Title 24 of the California Code of Regulations, which states that interior noise levels attributable to exterior sources shall not exceed 45 dBA (L_{dn}) in any habitable room of new dwellings. Design and construction in accordance with the recommendations developed in a site-specific acoustical analysis required by Title 24, and enforced through DBI's permit review process, would reduce the impact of the existing noise environment on future residents of the development to a less-than-significant level. This would ensure that future residents of the proposed building would not be substantially affected by existing noise levels, which are predominantly associated with vehicular traffic along Market Street, Van Ness Avenue, and, to a lesser extent, Franklin Street.

The proposed project would also include Planning Code-required private and common open space for the project's residents as described on p. 8. Exposure of residents to ambient noise levels at new on-site private and common open spaces is considered as part of the City's overall review for residential livability but is not required. The Planning Department would, through its building

permit review process, evaluate building and site plans to ensure that open spaces are shielded, to the maximum feasible extent, from existing noise levels that could prove annoying or disruptive to users. Acoustical shielding could involve, among other things, site design that uses the building itself to shield on-site open space from the greatest noise sources and construction of noise barriers between noise sources and open space. The proposed private and common open space areas would be designed to achieve the equivalent of at least 5 dBA of acoustical shielding which would be perceived to noticeably muffle sound coming from the street and adjacent land uses. Consequently, when shielding and distance effects are considered, the exterior noise level for the private and common open spaces that would be provided as part of the proposed project would be considered to be typical for an urban core neighborhood. No mitigation measures are necessary.

Exposure to Existing Vibration

After construction, the proposed building could also be exposed to vibration from existing transportation sources. To prevent vibration annoyance in residential buildings, the FTA guidelines recommend a vibration velocity level of 72 VdB or less when there are more than 70 vibration events per day. Muni operates the F-line streetcar on Market Street within 50 feet of the project site. Muni also operates light rail vehicles within a subway tunnel beneath the site. Both systems could produce more than 70 vibration events per day. After construction, the Muni subway line would pass approximately 10 feet below and 40 feet laterally to the southeast from the project parking garage; however, parking garages are not generally considered sensitive uses. Vibrations from the nearby Muni rail facilities are not expected to exceed recognized thresholds for potential building damage based upon the worst-case assessment of potential vibration from existing Muni rail operations.⁵⁷ However, the vibration levels from existing Muni rail operations have the potential to exceed the 72 VdB threshold suggested by the FTA to prevent annoyance to residential uses where there are more than 70 vibration events per day. Therefore, the noise and vibration assessment recommends that a site-specific analysis of the project site and proposed building be undertaken by a qualified acoustical consultant to determine if future sensitive uses would be exposed to excessive vibration levels from existing sources and to determine the extent of appropriate design features that may be required to minimize the potential for vibration annoyance. Implementation of Mitigation Measure M-NO-2b: Vibration Attenuation would reduce the impacts resulting from exposure to existing sources of unacceptable vibration to a less-than-significant level.

Mitigation Measure M-NO-3: Vibration Attenuation

Prior to submittal of the building permit application, the project sponsor shall hire a qualified acoustical consultant to prepare a detailed site-specific vibration analysis to determine if future sensitive uses will be exposed to excessive vibration levels from Muni

⁵⁷ Brown-Buntin Associates Inc., *Noise and Vibration Assessment*, p. 8.

rail operations and to evaluate the extent of vibration-reducing design features that may be required to minimize the potential for vibration annoyance to future residents. The vibration analysis shall be submitted to the Department of Building Inspection for review and approval prior to issuance of the building permit, to ensure that necessary acoustical features are included in the final project design.

For the reasons discussed above, the proposed project would not expose the project residents to interior noise levels that are in excess of standards established in the *General Plan* and Title 24, and with implementation of Mitigation Measure M-NO-3 would not expose project residents to excessive vibration. Therefore, this impact would be less than significant. This topic will not be discussed in the EIR.

Cumulative Impacts

Impact C-NO-1: Project operational noise from fixed noise sources and from traffic increases generated by the proposed project, when combined with other past, present, and reasonably foreseeable future projects in the site's vicinity and noise from reasonably foreseeable traffic growth forecast to the year 2040, would not contribute considerably to a significant cumulative permanent increase in ambient noise levels in the site's vicinity above levels existing without the project or cumulative traffic noise increases. (*Less than Significant*)

Fixed Noise Sources

Each reasonably foreseeable future project in the vicinity of the project site would generate operational noise and could contribute to an overall increase in ambient noise levels in the project vicinity. As with the proposed project, the stationary or fixed noise sources included in each of these future projects analyzed in the cumulative scenario, such as HVAC equipment, emergency power generators, and other mechanical equipment, would be subject to the Noise Ordinance, which requires that fixed noise sources not produce a noise level more than 5 dBA above the ambient noise level at each property boundary. The project at 1546-1564 Market Street (immediately to the west) is the closest project that could combine with the proposed project. With well over 100 feet of horizontal distance between any of the other reasonably foreseeable future projects and the project site, offering attenuation of up to 6 dBA of sound, ambient noise levels at and adjacent to the project site would not be affected by stationary equipment on the sites of the other future projects. Thus, due to the requirements of the Noise Ordinance and the distances between these future projects, there would be no potential to combine to result in significant cumulative long-term noise impacts related to fixed noise sources. As discussed in Impact NO-1, project-related fixed noise sources would be sited in a mechanical penthouse that would provide sufficient acoustical shielding to achieve compliance with the noise level limits of the Noise Ordinance. The Oak Street Plaza may serve as a gathering space for residents of the proposed project and residents of other proposed projects nearby, as well as occupants of existing land uses and the general public. The users of this new open space would not be significantly affected by cumulative noise from stationary equipment on the project site and the sites of other

future projects based on distances between the proposed plaza and other development sites and based on compliance by the proposed project with the requirements of the Noise Ordinance.

Therefore, the cumulative impact of operational noise related to fixed noise sources would not cause noise-sensitive receptors to be substantially affected by ambient noise levels, and this cumulative impact would not be significant.

Mobile Sources

Traffic levels in the project vicinity are anticipated to increase, which could also increase ambient noise levels. This would be attributable to the additional vehicle trips generated by forecasted residential and employment growth in the project vicinity, the City, and the region. Traffic noise could affect residents of the proposed project and residents of other proposed new buildings in the nearby area. In addition, Oak Street Plaza may function as a gathering space that attracts members of the public and new residents from the proposed project, those from other proposed residential projects in the vicinity, and occupants of other nearby land uses, for passive recreation and to wait for connecting transit vehicles such as the proposed BRT. These future new residents and other users of the proposed open space would be exposed to relatively high ambient noise levels from vehicular traffic, although the proposed new building would provide some buffer from traffic noise generated on Market Street. Traffic that would be generated by the proposed project and other reasonably foreseeable projects, as well as the traffic effects of removing two travel lanes on Van Ness Avenue with implementation of the Van Ness Avenue BRT project, is captured in future 2040 cumulative traffic volume forecasts generated by the San Francisco County Transportation Authority. These forecasts are based on anticipated citywide and regional economic growth and development, and account for growth on the project site.

Bus rapid transit vehicle operations along the Van Ness Avenue corridor would occur at-grade in dedicated transit lanes. As indicated in the Brown-Buntin Report, noise from future operation of bus rapid transit vehicles along Van Ness Avenue is estimated to be between 56 dBA to 62 dBA.⁵⁸ When considered in the context of existing and future ambient noise levels in the project vicinity, bus rapid transit vehicle operations would likely be imperceptible to nearby noise-sensitive receptors at or near the project site or at other future project sites. The future 2040 weekday PM peak hour traffic volume would not represent a doubling of the existing weekday PM peak hour traffic volume. Although these traffic data are for the weekday PM peak hour, it is reasonable to assume that daily traffic volumes would not double because the weekday PM period represents daily peak traffic periods. Future cumulative traffic-generated noise would not likely be noticeable to most people in the vicinity and would continue to be typical of dense urban areas. Therefore, the cumulative impact of traffic-generated noise levels in the project vicinity would not cause noise-sensitive receptors in proposed new residential buildings such as the proposed

⁵⁸ Brown-Buntin Associates Inc., *Noise and Vibration Assessment*, p. 9.

project or users of Oak Street Plaza to be substantially affected by ambient noise levels, and this cumulative impact would not be significant. The contribution of noise from project-generated roadway traffic to cumulative traffic noise levels in the project vicinity would not be cumulatively considerable in this context, i.e., would be less than significant.

In conclusion, project operational noise from fixed and mobile noise sources, in combination with operational noise from past, present, and reasonably foreseeable future projects in the project vicinity and cumulative traffic growth to 2040 (inclusive of the reasonably foreseeable future projects), would not contribute considerably to the long-term exposure of nearby noise-sensitive receptors to noise levels in excess of applicable noise standards and/or result in substantial permanent increase in the ambient noise levels in the project vicinity. This cumulative impact would not be significant. No mitigation is necessary, and this topic will not be discussed in the EIR.

Impact C-NO-2: Construction of the proposed project, in combination with other past, present, and reasonably foreseeable future projects in the site's vicinity, would not result in a cumulatively considerable contribution to significant temporary or periodic increases in ambient noise or vibration levels in the project vicinity above levels existing without the proposed project. (*Less than Significant with Mitigation*)

Construction noise is a localized impact that reduces as distance from the source increases and rapidly attenuates when line-of-sight is blocked by buildings or other intervening features. The 1546-1564 Oak Street project (immediately west of the project site), the 22-24 Franklin Street project (approximately 220 feet west), and the Van Ness Avenue BRT project (immediately east of the project site) are the closest project sites that could contribute to cumulative noise levels at the same noise-sensitive residential land uses that would be affected by construction noise from the proposed project should such activities occur within the same time period. Construction activities at the other project sites within a roughly ¼-mile radius of the project site, such as 1 Franklin Street, the Central Freeway Parcels, 1500-1580 Mission Street, 1601 Mission Street, 1700 Market Street, and others (see list of cumulative projects on Initial Study pp. 40-45), would not contribute to cumulative construction noise in the project vicinity because they would be required to comply with the City's Noise Ordinance and because of their distance from the project site, the presence of intervening structures, and, in some cases, because they are currently under construction (e.g., 100 Van Ness Avenue and 101 Polk Street). Therefore, the cumulative noise analysis does not consider those reasonably foreseeable future projects.

The reasonably foreseeable future projects at 1546-1564 Market Street, 22 Franklin Street, and in the Van Ness Avenue right-of-way would each involve demolition and construction work and would generate construction truck trips that would use the same routes as those for the proposed project to access their respective project sites. If construction of these future projects were to overlap, noise-sensitive receptors close to all three of these project sites could experience temporary and intermittent increases to ambient noise levels. As with the proposed project,

construction activities at these sites would also be required to comply with the Noise Ordinance and would be subject to enforcement of the Noise Ordinance by DBI and the Police Department. As explained above, the Noise Ordinance prohibits construction activities between 8 PM and 7 AM, and limits noise from any individual piece of construction equipment, except impact tools, to 80 dBA (Ldn) at 100 feet from the noise source. As described above under Impact NO-2, the proximity of off-site sensitive receptors to project construction activities (within 70 feet) would result in a significant construction noise impact, and Mitigation Measure M-NO-2 was identified to reduce the impact to a less-than-significant level. Depending on the distance of sensitive receptors to the other future project sites, these reasonably foreseeable projects may also be required to incorporate measures to reduce construction-related noise. Therefore, while cumulative construction activities could temporarily increase ambient noise levels intermittently if construction periods for these projects were to overlap, measures to minimize temporary construction noise could be implemented.

Noise levels are reduced with distance from the source, as illustrated in Table 2 on p. 78. Noise-sensitive receptors closest to the project site at the Conservatory of Music, 145 Fell Street, and 77 Van Ness Avenue would be over 100 feet from the three construction sites included in the cumulative analysis and thus would experience reduced noise levels from construction activities that would occur at those locations. While the combined noise from multiple construction sites would be noticeable and annoying to some noise-sensitive receptors, the overall cumulative effect would not be significant.

Implementation of **Mitigation Measure M-NO-2** would ensure that the incremental contribution of the proposed project to short-term exposure of noise-sensitive receptors to increased construction noise would not result in a cumulatively considerable contribution to cumulative construction noise impacts. Therefore, this topic will not be discussed in the EIR.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
6. AIR QUALITY—Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

Overview

The Bay Area Air Quality Management District (BAAQMD) is the regional agency with jurisdiction over the nine-county San Francisco Bay Area Air Basin (SFBAAB), which includes San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa Counties and portions of Sonoma and Solano Counties. The BAAQMD is responsible for attaining and maintaining air quality in the SFBAAB within federal and state air quality standards, as established by the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA), respectively. Specifically, the BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the SFBAAB and to develop and implement strategies to attain the applicable federal and state standards. The CAA and the CCAA require plans to be developed for areas that do not meet air quality standards, generally. The most recent air quality plan, the *2010 Clean Air Plan*, was adopted by the BAAQMD on September 15, 2010. The *2010 Clean Air Plan* updates the *Bay Area 2005 Ozone Strategy* in accordance with the requirements of the CCAA to implement all feasible measures to reduce ozone; provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases in a single, integrated plan; and establish emission control measures to be adopted or implemented. The 2010 Clean Air Plan contains the following primary goals:

- Attain air quality standards;
- Reduce population exposure and protect public health in the San Francisco Bay Area; and
- Reduce greenhouse gas emissions and protect the climate.

The *2010 Clean Air Plan* represents the most current applicable air quality plan for the SFBAAB. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of air quality plans.

Criteria Air Pollutants

In accordance with the state and federal CAAs, air pollutant standards are identified for the following six criteria air pollutants: ozone, carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead. These air pollutants are termed criteria air pollutants because they are regulated by developing specific public health- and welfare-based

criteria as the basis for setting permissible levels. In general, the SFBAAB experiences low concentrations of most pollutants when compared to federal or state standards. The SFBAAB is designated as either in attainment⁵⁹ or unclassified for most criteria pollutants with the exception of ozone, PM_{2.5}, and PM₁₀, for which these pollutants are designated as non-attainment for either the state or federal standards. By its very nature, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in non-attainment of air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality impacts. If a project's contribution to cumulative air quality impacts is considerable, then the project's impact on air quality would be considered significant.⁶⁰

Land use projects may contribute to regional criteria air pollutants during the construction and operational phases of a project. **Table 3: Criteria Air Pollutant Significance Thresholds** identifies air quality significance thresholds followed by a discussion of each threshold. Projects that would result in criteria air pollutant emissions below these significance thresholds would not violate an air quality standard, contribute substantially to an air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants within the SFBAAB.

Table 3: Criteria Air Pollutant Significance Thresholds

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	

Ozone Precursors

As discussed previously, the SFBAAB is currently designated as non-attainment for ozone and particulate matter. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x). The potential for a project to result in a cumulatively considerable net increase in

⁵⁹ "Attainment" status refers to those regions that are meeting federal and/or state standards for a specified criteria pollutant. "Non-attainment" refers to regions that do not meet federal and/or state standards for a specified criteria pollutant. "Unclassified" refers to regions where there is not enough data to determine the region's attainment status for a specified criteria air pollutant.

⁶⁰ Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2011, p. 2-1.

criteria air pollutants, which may contribute to an existing or projected air quality violation, are based on the state and federal Clean Air Acts emissions limits for stationary sources. To ensure that new stationary sources do not cause or contribute to a violation of an air quality standard, BAAQMD Regulation 2, Rule 2 requires that any new source that emits criteria air pollutants above a specified emissions limit must offset those emissions. For ozone precursors ROG and NO_x, the offset emissions level is an annual average of 10 tons per year (or 54 pounds (lbs.) per day).⁶¹ These levels represent emissions below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

Although this regulation applies to new or modified stationary sources, land use development projects result in ROG and NO_x emissions as a result of increases in vehicle trips, architectural coating and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of land use projects and those projects that result in emissions below these thresholds, would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in ROG and NO_x emissions. Due to the temporary nature of construction activities, only the average daily thresholds are applicable to construction phase emissions.

Particulate Matter (PM₁₀ and PM_{2.5})⁶²

The BAAQMD has not established an offset limit for PM_{2.5}. However, the emissions limit in the federal New Source Review (NSR) program for stationary sources in nonattainment areas is an appropriate significance threshold. The federal NSR program was created by the federal CAA to ensure that stationary sources of air pollution are constructed in a manner that is consistent with attainment of federal health-based ambient air quality standards. For PM₁₀ and PM_{2.5}, the emissions limit under NSR is 15 tons per year (82 lbs. per day) and 10 tons per year (54 lbs. per day), respectively. These emissions limits represent levels below which a source is not expected to have an impact on air quality.⁶³ Similar to ozone precursor thresholds identified above, land use development projects typically result in particulate matter emissions as a result of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of a land use project. Again, because construction activities are temporary in nature, only the average daily thresholds are applicable to construction-phase emissions.

⁶¹ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, page 17.

⁶² PM₁₀ is often termed “coarse” particulate matter and is made of particulates that are 10 microns in diameter or smaller. PM_{2.5}, termed “fine” particulate matter, is composed of particles that are 2.5 microns or less in diameter.

⁶³ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 16.

Fugitive Dust

Fugitive dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices (BMPs) at construction sites significantly control fugitive dust⁶⁴ and individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.⁶⁵ The BAAQMD has identified a number of BMPs to control fugitive dust emissions from construction activities.⁶⁶ The City's Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust. In addition, the BMPs employed in compliance with the City's Construction Dust Control Ordinance is an effective strategy for controlling construction-related fugitive dust.

Other Criteria Pollutants

Regional concentrations of CO in the Bay Area have not exceeded the state standards in the past 11 years and SO₂ concentrations have never exceeded the standards. The primary source of CO emissions from development projects is vehicle traffic. Construction-related SO₂ emissions represent a negligible portion of the total basin-wide emissions and construction-related CO emissions represent less than five percent of the Bay Area total basin-wide CO emissions. As discussed previously, the Bay Area is in attainment for both CO and SO₂. Furthermore, the BAAQMD has demonstrated, based on modeling, that in order to exceed the California ambient air quality standard of 9.0 ppm (8-hour average) or 20.0 ppm (1-hour average) for CO, project traffic in addition to existing traffic would need to exceed 44,000 vehicles per hour at affected intersections (or 24,000 vehicles per hour where vertical and/or horizontal mixing is limited). Therefore, given the Bay Area's attainment status and the limited CO and SO₂ emissions that could result from a development projects, development projects would not result in a cumulatively considerable net increase in CO or SO₂, and quantitative analysis is not required.

Local Health Risks and Hazards

In addition to criteria air pollutants, individual projects may emit toxic air contaminants (TACs). TACs collectively refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long-duration) and acute (i.e., severe but short-term) adverse effects to human health, including carcinogenic effects. Human health effects of TACs include birth defects, neurological damage, cancer, and mortality. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

⁶⁴ Western Regional Air Partnership. 2006. *WRAP Fugitive Dust Handbook*. September 7, 2006. This document is available online at http://www.wrapair.org/forums/dejff/dh/content/FDHandbook_Rev_06.pdf, accessed February 16, 2012.

⁶⁵ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 27.

⁶⁶ BAAQMD, *CEQA Air Quality Guidelines*, May 2011.

Unlike criteria air pollutants, TACs do not have ambient air quality standards but are regulated by the BAAQMD using a risk-based approach to determine which sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated, and considered together with information regarding the toxic potency of the substances, to provide quantitative estimates of health risks.⁶⁷

Air pollution does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Land uses such as residences, schools, children's day care centers, hospitals, and nursing and convalescent homes are considered to be the most sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress or, as in the case of residential receptors, their exposure time is greater than that for other land uses. Therefore, these groups are referred to as "sensitive receptors." Exposure assessment guidance typically assumes that residences would be exposed to air pollution 24 hours per day, 350 days per year, for 70 years. Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

Exposures to fine particulate matter (PM_{2.5}) are strongly associated with mortality, respiratory diseases, and lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.⁶⁸ In addition to PM_{2.5}, diesel particulate matter (DPM) is also of concern. The California Air Resources Board (ARB) identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans.⁶⁹ The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other TAC routinely measured in the region.

In an effort to identify areas of San Francisco most adversely affected by sources of TACs, San Francisco partnered with the BAAQMD to conduct a citywide health risk assessment based on an inventory and assessment of air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed the "Air Pollutant Exposure Zone,"⁷⁰ were identified based on health-protective criteria that considers estimated cancer risk, exposures

⁶⁷ In general, a health risk assessment is required if the BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. The applicant is then subject to a health risk assessment for the source in question. Such an assessment generally evaluates chronic, long-term effects, estimating the increased risk of cancer as a result of exposure to one or more TACs.

⁶⁸ SFDPH, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008.

⁶⁹ California Air Resources Board (ARB), Fact Sheet, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," October 1998.

⁷⁰ San Francisco Department of Public Health and San Francisco Planning Department, *Air Pollutant Exposure Zone Map*, available online at <https://www.sfdph.org/dph/files/EHSdocs/AirQuality/AirPollutantExposureZoneMap.pdf>. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

to fine particulate matter, proximity to freeways, and locations with particularly vulnerable populations. Each of these criteria is discussed below.

Excess Cancer Risk

The above 100 per one million persons (100 excess cancer risk) criteria is based on United State Environmental Protection Agency (USEPA) guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.⁷¹ As described by the BAAQMD, the USEPA considers a cancer risk of 100 per million to be within the “acceptable” range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants (NESHAP) rulemaking,⁷² the USEPA states that it “...strives to provide maximum feasible protection against risks to health from hazardous air pollutants by (1) protecting the greatest number of persons possible to an individual lifetime risk level no higher than approximately one in one million and (2) limiting to no higher than approximately one in ten thousand [100 in one million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years.” The 100 per one million excess cancer cases is also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on BAAQMD regional modeling.⁷³

Fine Particulate Matter

In April 2011, the USEPA published *Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards*, “Particulate Matter Policy Assessment.” In this document, USEPA staff concludes that the then current federal annual PM_{2.5} standard of 15 µg/m³ should be revised to a level within the range of 13 to 11 µg/m³, with evidence strongly supporting a standard within the range of 12 to 11 µg/m³. The Air Pollutant Exposure Zone for San Francisco is based on the health protective PM_{2.5} standard of 11 µg/m³, as supported by the USEPA’s Particulate Matter Policy Assessment, although lowered to 10 µg/m³ to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

Proximity to Freeways

According to the California Air Resources Board, studies have shown an association between the proximity of sensitive land uses to freeways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children. Siting sensitive uses in close proximity to freeways increases both exposure to air pollution and the potential for adverse health effects.

⁷¹ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 67.

⁷² 54 Federal Register 38044, September 14, 1989.

⁷³ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 67.

As evidence shows that sensitive uses in an area within a 500-foot buffer of any freeway are at an increased health risk from air pollution,⁷⁴ lots that are within 500 feet of freeways are included in the Air Pollutant Exposure Zone.

Health Vulnerable Locations

Based on the BAAQMD's evaluation of health vulnerability in the Bay Area, those zip codes (94102, 94103, 94105, 94124, and 94130) in the worst quintile of Bay Area Health vulnerability scores as a result of air pollution-related causes were afforded additional protection by lowering the standards for identifying lots in the Air Pollutant Exposure Zone to: (1) an excess cancer risk greater than 90 per one million persons exposed, and/or (2) PM_{2.5} concentrations in excess of 9 µg/m³.⁷⁵

The above citywide health risk modeling was also used as the basis for approving a series of amendments to the San Francisco Building and Health Codes, generally referred to as the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments or Health Code, Article 38 (Ordinance 224-14, effective December 8, 2014) (Article 38). The purpose of Article 38 is to protect the public health and welfare by establishing an Air Pollutant Exposure Zone and imposing an enhanced ventilation requirement for all urban infill sensitive use development within the Air Pollutant Exposure Zone. In addition, projects within the Air Pollutant Exposure Zone require special consideration to determine whether the project's activities would add a substantial amount of emissions to areas already adversely affected by poor air quality. The project site is located within the Air Pollutant Exposure Zone.

CONSTRUCTION AIR QUALITY IMPACTS

Project-related air quality impacts fall into two categories: short-term impacts from construction and long-term impacts from project operation. The following addresses construction-related air quality impacts resulting from the proposed project.

Impact AQ-1: The proposed project's construction activities would generate fugitive dust and criteria air pollutants, but would not violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. (*Less than Significant*)

Construction activities (short-term) typically result in emissions of ozone precursors and PM in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and PM are primarily a result of the combustion of fuel from on-road and off-road

⁷⁴ California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Available online at: <http://www.arb.ca.gov/ch/landuse.htm>.

⁷⁵ San Francisco Planning Department and San Francisco Department of Public Health, *2014 Air Pollutant Exposure Zone Map (Memo and Map)*, April 9, 2014. These documents are part of San Francisco Board of Supervisors File No. 14806, Ordinance No. 224-14, Amendment to Health Code Article 38.

vehicles. However, ROGs are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving. The proposed project includes demolition of the existing structures, excavation for the foundation and underground parking levels, and construction of a 39-story mixed-use building with an 84,000-gsf below-grade parking garage, along with streetscape components. Approximately 30,000 cubic yards of demolition debris and 50,000 cubic yards of soil would be excavated and exported from the site by trucks. During the project's approximately 32 month construction period, construction activities would have the potential to result in emissions of ozone precursors and PM, as discussed below.

Fugitive Dust

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. Although there are federal standards for air pollutants and implementation of state and regional air quality control plans, air pollutants continue to have impacts on human health throughout the country. California has found that particulate matter exposure can cause health effects at lower levels than national standards. The current health burden of particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. According to the ARB, reducing particulate matter PM_{2.5} concentrations to state and federal standards of 12 µg/m³ in the San Francisco Bay Area would prevent between 200 and 1,300 premature deaths.⁷⁶

Dust can be an irritant causing watering eyes or irritation to the lungs, nose, and throat. Demolition, excavation, grading, and other construction activities can cause wind-blown dust that adds particulate matter to the local atmosphere. Depending on exposure, adverse health effects can occur due to this particulate matter in general and also due to specific contaminants such as lead or asbestos that may be constituents of soil.

In response, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes generally referred hereto as the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) with the intent of reducing the quantity of dust generated during site preparation, demolition and construction work in order to protect the health of the general public and of onsite workers, minimize public nuisance complaints, and to avoid orders to stop work by the Department of Building Inspection (DBI).

The Ordinance requires that all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures whether or

⁷⁶ ARB, *Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California*, Staff Report, Table 4c, October 24, 2008.

not the activity requires a permit from DBI. The Director of DBI may waive this requirement for activities on sites less than one half-acre that are unlikely to result in any visible wind-blown dust.

In compliance with the Construction Dust Control Ordinance, the project sponsor and the contractor responsible for construction activities at the project site would be required to use the following practices to control construction dust on the site or other practices that result in equivalent dust control that are acceptable to the Director. Dust suppression activities may include watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 square feet of excavated material, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10 mil (0.01 inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques. CCSF Ordinance 175-91 restricts the use of potable water for soil compaction and dust control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of San Francisco, unless permission is obtained from the San Francisco Public Utilities Commission (SFPUC). Non-potable water must be used for soil compaction and dust control activities during project construction and demolition. The SFPUC operates a recycled water truck-fill station at the Southeast Water Pollution Control Plant that provides recycled water for these activities at no charge.

For projects over one half-acre, such as the proposed project when the streetscape improvement area is included, the Dust Control Ordinance requires that the project sponsor submit a Dust Control Plan for approval by the San Francisco Department of Public Health. DBI will not issue a building permit without written notification from the Director of Public Health that the applicant has a site-specific Dust Control Plan, unless the Director waives the requirement. Interior-only tenant improvement projects that are over one-half acre in size that will not produce exterior visible dust are exempt from the site-specific Dust Control Plan requirement.

The site-specific Dust Control Plan would require the project sponsor to: submit of a map to the Director of Public Health showing all sensitive receptors within 1,000 feet of the site; wet down areas of soil at least three times per day; provide an analysis of wind direction and install upwind and downwind particulate dust monitors; record particulate monitoring results; hire an independent, third-party to conduct inspections and keep a record of those inspections; establish shut-down conditions based on wind, soil migration, etc.; establish a hotline for surrounding community members who may be potentially affected by project-related dust; limit the area subject to construction activities at any one time; install dust curtains and windbreaks on the property lines, as necessary; limit the amount of soil in hauling trucks to the size of the truck bed and securing with a tarpaulin; enforce a 15 mph speed limit for vehicles entering and exiting

construction areas; sweep affected streets with water sweepers at the end of the day; install and utilize wheel washers to clean truck tires; terminate construction activities when winds exceed 25 miles per hour; apply soil stabilizers to inactive areas; and sweep off adjacent streets to reduce particulate emissions. The project sponsor would be required to designate an individual to monitor compliance with these dust control requirements. Compliance with the regulations and procedures set forth by the San Francisco Dust Control Ordinance would ensure that potential dust-related air quality impacts would be reduced to a less-than-significant level.

Criteria Air Pollutants

As discussed above, construction activities would result in emissions of criteria air pollutants from the use of off- and on-road vehicles and equipment. To assist lead agencies in determining whether short-term construction-related air pollutant emissions require further analysis as to whether the project may exceed the criteria air pollutant significance thresholds shown in Table 3, p. 88 above, the BAAQMD, in its *CEQA Air Quality Guidelines* (May 2011), developed screening criteria. If a proposed project meets the screening criteria, then construction of the project would result in less-than-significant criteria air pollutant impacts. A project that exceeds the screening criteria may require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds. The *CEQA Air Quality Guidelines* note that the screening levels are generally representative of new development on greenfield⁷⁷ sites without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions.

The proposed project exceeds the criteria air pollutant screening criteria; therefore a quantitative analysis was conducted. Construction-related criteria air pollutants generated by the proposed project were quantified using the California Emissions Estimator Model (CalEEMod). The model was developed, including default data (e.g., emission factors, meteorology, etc.), in collaboration with California air districts' staff. Default assumptions were used where project-specific information was unknown. Construction of the proposed project would occur over an approximately 32 months, Monday through Friday. Emissions were converted from tons/year to lbs/day using the estimated construction duration of 669 working days.⁷⁸ As shown in **Table 4: Daily Project Construction Emissions**, unmitigated project construction emissions would not be above the threshold of significance for any criteria pollutant.

⁷⁷ A greenfield site refers to agricultural or forest land or an undeveloped site earmarked for commercial, residential, or industrial projects.

⁷⁸ Calculated using 251 working days per year on average.

Table 4: Daily Project Construction Emissions

	Pollutant Emissions (Average Pounds per Day)			
	ROG	NOx	Exhaust PM₁₀	Exhaust PM_{2.5}
Unmitigated Project Emissions	22.13	27.09	2.93	1.83
Significance Threshold	54.0	54.0	82.0	54.0

Note: Emissions over threshold levels are shown in in bold.

Source: BAAQMD, 2011; San Francisco Planning Department, Environmental Planning Division, 2015

As discussed above, the proposed project’s construction activities would not violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. For these reasons, this impact would be less than significant. No mitigation measures are required.

Impact AQ-2: The proposed project’s construction activities would generate toxic air contaminants, including diesel particulate matter, which would expose sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)

The project site is located within the Air Pollutant Exposure Zone as described above. The proposed project would include 320 residential units, a new sensitive receptor. Existing sensitive land uses within about 300 feet of the project site include the multi-family residential buildings at 20 Franklin Street, 23 Franklin Street, 41 Franklin Street, 150 Franklin Street, 171 Fell Street, 145 Fell Street, 77 Van Ness Avenue, and 1601 Market Street. The French American and Chinese American International School campuses (150 Oak Street) are within 500 feet of the project site as are multi-family residential buildings at 1600 Market Street, 24 Page Street, 225 Fell Street, 181-185 Franklin Street, and 1400 Market Street. There are no daycare facilities, hospitals, or public libraries in the immediate project area.

Off-road equipment (which includes construction-related equipment) is a large contributor to DPM emissions in California, although since 2007, the ARB has found the emissions to be substantially lower than previously expected.⁷⁹ Newer and more refined emission inventories have substantially lowered the estimates of DPM emissions from off-road equipment such that off-road equipment is now considered the sixth largest source of DPM emissions in California.⁸⁰ For example, revised PM emission estimates for the year 2010, which DPM is a major component

⁷⁹ ARB, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, p.1 and p. 13 (Figure 4), October 2010.

⁸⁰ ARB, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, October 2010.

of total PM, have decreased by 83 percent from previous 2010 emissions estimates for the SFBAAB.⁸¹ Approximately half of the reduction in emissions can be attributed to the economic recession and half to updated methodologies used to better assess construction emissions.⁸²

Additionally, a number of federal and state regulations are requiring cleaner off-road equipment. Specifically, both the USEPA and California have set emissions standards for new off-road equipment engines, ranging from Tier 1 to Tier 4. Tier 1 emission standards were phased in between 1996 and 2000 and Tier 4 Interim and Final emission standards for all new engines would be phased in between 2008 and 2015. To meet the Tier 4 emission standards, engine manufacturers will be required to produce new engines with advanced emission-control technologies. Although the full benefits of these regulations will not be realized for several years, the USEPA estimates that by implementing the federal Tier 4 standards, NO_x and PM emissions will be reduced by more than 90 percent.⁸³

In addition, construction activities do not lend themselves to analysis of long-term health risks because of their temporary and variable nature. As explained in the BAAQMD's *CEQA Air Quality Guidelines*:

“Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (ARB 2005). In addition, current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of health risk.”⁸⁴

Therefore, project-level analyses of construction activities have a tendency to produce overestimated assessments of long-term health risks. However, within the Air Pollutant Exposure Zone, as discussed above, additional construction activity may adversely affect populations that are already at a higher risk for adverse long-term health risks from existing sources of air pollution.

The proposed project would require construction activities for the approximate 32-month construction period. Project construction activities would result in short-term emissions of DPM

⁸¹ ARB, “In-Use Off-Road Equipment, 2011 Inventory Model,” Query accessed online, April 2, 2012, http://www.arb.ca.gov/msei/categories.htm#inuse_or_category.

⁸² ARB, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, October 2010.

⁸³ USEPA, “Clean Air Nonroad Diesel Rule: Fact Sheet,” May 2004.

⁸⁴ BAAQMD, *CEQA Air Quality Guidelines*, May 2011, p. 8-6.

and other TACs. The project site is located in an area that already experiences poor air quality and project construction activities would generate additional air pollution, affecting nearby sensitive receptors and resulting in a significant impact. Implementation of Mitigation Measure M-AQ-2: Construction Air Quality would reduce the magnitude of this impact to a less-than-significant level. While emission reductions from limiting idling, educating workers and the public and properly maintaining equipment are difficult to quantify, other measures, specifically the requirement for equipment with Tier 2 engines and Level 3 Verified Diesel Emission Control Strategy (VDECS) can reduce construction emissions by 89 to 94 percent compared to equipment with engines meeting no emission standards and without a VDECS.⁸⁵ Emissions reductions from the combination of Tier 2 equipment with level 3 VDECS is almost equivalent to requiring only equipment with Tier 4 Final engines, which is not yet available for engine sizes subject to the mitigation. Therefore, compliance with Mitigation Measure M-AQ-2 would reduce construction emissions impacts on nearby sensitive receptors to a less-than-significant level.

Mitigation Measure M-AQ-2: Construction Air Quality

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

⁸⁵ 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).

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 manufacturer 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 M-AQ-2, below.

Table M-AQ-2: 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*
* Alternative fuels are not a VDECS		

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.

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 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.

OPERATIONAL AIR QUALITY IMPACTS

Land use projects typically result in emissions of criteria air pollutants and toxic air contaminants primarily from an increase in motor vehicle trips. However, land use projects may also result in criteria air pollutants and toxic air contaminants from combustion of natural gas, landscape maintenance, use of consumer products, and architectural coating. The following addresses air quality impacts resulting from operation of the proposed project.

Impact AQ-3: During project operations, the proposed project would result in emissions of criteria air pollutants, but not at levels that 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. (Less than Significant)

As discussed above in Impact AQ-1, the BAAQMD, in its *CEQA Air Quality Guidelines* (May 2011), has developed screening criteria to determine whether a project requires an analysis of project-generated criteria air pollutants. If all the screening criteria are met by a proposed project, then the lead agency or applicant does not need to perform a detailed air quality assessment.

The proposed project includes 320 dwelling units, and a 12,970-gsf restaurant, estimated to generate approximately 8,167 daily vehicle trips. The proposed project would be below the operational criteria air pollutant screening sizes for the “apartment, high-rise” land use type (510 dwelling units) and the restaurant use (47,000 sq. ft.) identified in the BAAQMD’s *CEQA Air Quality Guidelines*. Thus, quantification of project-generated criteria air pollutant emissions is not required, and the proposed project would not exceed any of the significance thresholds for criteria air pollutants, and would result in less than significant impact with respect to criteria air pollutants.

Impact AQ-4: The proposed project would generate toxic air contaminants, including diesel particulate matter, exposing sensitive receptors to substantial air pollutant concentrations. (Less than Significant with Mitigation)

The project site is located within the Air Pollutant Exposure Zone as described above. Sensitive land uses within 300 feet of the project site include multi-family residential buildings at 20 Franklin Street, 23 Franklin Street, 41 Franklin Street, 150 Franklin Street, 171 Fell Street, 145 Fell Street, 77 Van Ness Avenue, and 1601 Market Street. The French American and Chinese American International School campuses (150 Oak Street) are within 500 feet of the project site as are multi-family residential buildings at 1600 Market Street, 24 Page Street, 225 Fell Street, 181-185 Franklin Street, and 1400 Market Street. Additionally, the proposed project would introduce new residential units to the project site.

Sources of Toxic Air Contaminants

Individual projects result in emissions of toxic air contaminants primarily as a result of an increase in vehicle trips. The BAAQMD considers roads with less than 10,000 vehicles per day “minor, low-impact” sources that do not pose a significant health impact even in combination with other nearby sources and recommends that these sources be excluded from the environmental analysis. The proposed project’s estimated 8,167 daily vehicle trips would be well below this level and would be distributed among the local roadway network, therefore an assessment of project-generated TACs resulting from vehicle trips is not required and the proposed project would not generate a substantial amount of TAC emissions that could affect nearby sensitive receptors.

The proposed project would also include a backup emergency generator. Emergency generators are regulated by the BAAQMD through their New Source Review (Regulation 2, Rule 5) permitting process. The project applicant would be required to obtain applicable permits to

operate an emergency generator from the BAAQMD. Although emergency generators are intended only to be used in periods of power outages, monthly testing of the generator would be required. The BAAQMD limit testing to no more than 50 hours per year. Additionally, as part of the permitting process, the BAAQMD would limit the excess cancer risk from any facility to no more than ten per one million population and requires any source that would result in an excess cancer risk greater than one per one million population to install Best Available Control Technology for Toxics (TBACT). However, because the project site is located in an area that already experiences poor air quality, the proposed emergency back-up generator has the potential to expose sensitive receptors to substantial concentrations of diesel emissions, a known TAC, resulting in a significant air quality impact. Implementation of Mitigation Measure AQ-4a: Best Available Control Technology for Diesel Generators would reduce the magnitude of this impact to a less-than-significant level by reducing emissions by 89 to 94 percent compared to equipment with engines that do not meet any emission standards and without a VDECS. Therefore, although the proposed project would add a new source of TACs within an area that already experiences poor air quality, implementation of M-AQ-4 would reduce this impact to a less-than-significant level.

M-AQ-4: Best Available Control Technology for Diesel Generators

The project sponsor shall ensure that the backup diesel generator meet or exceed one of the following emission standards for particulate matter: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California Air Resources Board(ARB) Level 3 Verified Diesel Emissions Control Strategy (VDECS). A non-verified diesel emission control strategy may be used if the filter has the same particulate matter reduction as the identical ARB verified model and if the Bay Area Air Quality Management District (BAAQMD) approves of its use. The project sponsor shall submit documentation of compliance with the BAAQMD New Source Review permitting process (Regulation 2, Rule 2, and Regulation 2, Rule 5) and the emission standard requirement of this mitigation measure to the Planning Department for review and approval prior to issuance of a permit for a backup diesel generator from any City agency.

Siting Sensitive Land Uses

The proposed project would include development of residential units and is considered a sensitive land use for purposes of air quality evaluation. For sensitive use projects within the Air Pollutant Exposure Zone as defined by Article 38, such as the proposed project, Article 38 requires that the project sponsor submit an Enhanced Ventilation Proposal for approval by the Department of Public Health (DPH) that achieves protection from PM_{2.5} (fine particulate matter) equivalent to that associated with a Minimum Efficiency Reporting Value 13 MERV 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.⁸⁶ The regulations and procedures set forth by Article 38 would ensure that exposure to sensitive receptors would not be significant. Therefore impacts related to siting new sensitive land uses would be less than significant through compliance with Article 38.

Impact AQ-5: The proposed project would not conflict with, or obstruct implementation of, the 2010 Clean Air Plan. (Less than Significant)

The most recently adopted air quality plan for the SFBAAB is the *2010 Clean Air Plan*. The *2010 Clean Air Plan* is a road map that demonstrates how the San Francisco Bay Area will achieve compliance with the state ozone standards as expeditiously as practicable and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. In determining consistency with the *2010 Clean Air Plan* (CAP), this analysis considers whether the project would: (1) support the primary goals of the CAP, (2) include applicable control measures from the CAP, and (3) avoid disrupting or hindering implementation of control measures identified in the CAP.

The primary goals of the CAP are to: (1) reduce emissions and decrease concentrations of harmful pollutants, (2) safeguard the public health by reducing exposure to air pollutants that pose the greatest health risk, and (3) reduce greenhouse gas emissions. To meet the primary goals, the CAP recommends specific control measures and actions. These control measures are grouped into various categories and include stationary and area source measures, mobile source measures, transportation control measures, land use measures, and energy and climate measures. The CAP recognizes that to a great extent, community design dictates individual travel mode, and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and greenhouse gases from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand, and people have a range of viable transportation options. To this end, the *2010 Clean Air Plan* includes 55 control measures aimed at reducing air pollution in the SFBAAB.

The measures most applicable to the proposed project are transportation control measures and energy and climate control measures. The proposed project's impact with respect to GHGs are discussed in Section E.7, Greenhouse Gas Emissions, which demonstrates that the proposed project would comply with the applicable provisions of the City's Greenhouse Gas Reduction Strategy.

The compact development of the proposed project and high availability of viable transportation options ensure that residents could bicycle, walk, and ride transit to and from the project site

⁸⁶ Build Inc., Department of Public Health Application for Article 38 Compliance Assessment, April 29, 2015. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E

instead of taking trips via private automobile. These features ensure that the project would avoid substantial growth in automobile trips and vehicle miles traveled. The proposed project's anticipated 8,167 net new daily vehicle trips would result in a negligible increase in air pollutant emissions. Furthermore, the proposed project would be generally consistent with the *San Francisco General Plan*, as discussed in Section C, Compatibility with Existing Zoning and Plans. Transportation control measures that are identified in the *2010 Clean Air Plan* are implemented by the *San Francisco General Plan* and the Planning Code, for example, through the City's Transit First Policy, bicycle parking requirements, and transit impact development fees. Compliance with these requirements would ensure the project includes relevant transportation control measures specified in the *2010 Clean Air Plan*. Therefore, the proposed project would include applicable control measures identified in the CAP to meet the CAP's primary goals.

Examples of a project that could cause the disruption or delay of *Clean Air Plan* control measures are projects that would preclude the extension of a transit line or bike path, or projects that propose excessive parking beyond parking requirements. The proposed project would add 320 residential units, 160 parking spaces, and a restaurant into a dense, walkable urban area near a concentration of regional and local transit service. It would not preclude the extension of a transit line or a bike path or any other transit improvement, and thus would not disrupt or hinder implementation of control measures identified in the CAP.

For the reasons described above, the proposed project would not interfere with implementation of the *2010 Clean Air Plan*, and because the proposed project would be consistent with the applicable air quality plan that demonstrates how the region will improve ambient air quality and achieve the state and federal ambient air quality standards, this impact would be less than significant.

Impact AQ-6: The proposed project would not create objectionable odors that would affect a substantial number of people. (*Less than Significant*)

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities. During construction, diesel exhaust from construction equipment would generate some odors. However, construction-related odors would be temporary and would not persist upon project completion. Observation indicates that the project site is not substantially affected by sources of odors.⁸⁷ Additionally, the proposed project includes residential units and ground floor retail space with a restaurant, and would therefore not create a significant source of new odors. Therefore, odor impacts would be less than significant.

⁸⁷ Turnstone/SWCA, site visits conducted October 20, 2014 and March 26, 2015.

CUMULATIVE AIR QUALITY IMPACTS

Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the project area would contribute to cumulative air quality impacts. (*Less than Significant with Mitigation*)

As discussed above, regional air pollution is by its very nature largely a cumulative impact. Emissions from past, present, and future projects contribute to the region's adverse air quality on a cumulative basis. No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts.⁸⁸ The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project's construction (Impact AQ-1) and operational (Impact AQ-3) emissions would not exceed the project-level thresholds for criteria air pollutants, the proposed project would not be considered to result in a cumulatively considerable contribution to regional air quality impacts.

As discussed above, the project site is located in an area that already experiences poor air quality. The project would add new sources of TACs (e.g., construction activities, new vehicle trips and an emergency generator) within an area already adversely affected by air quality, resulting in a considerable contribution to cumulative health risk impacts on nearby sensitive receptors. This would be a significant cumulative impact. The proposed project would be required to implement Mitigation Measure M-AQ-2: Construction Air Quality, pp. 99-101, which could reduce construction period emissions by as much as 94 percent and Mitigation Measure M-AQ-4: Best Available Control Technology for Diesel Generators, pp. 103, which requires best available control technology to limit emissions from the project's emergency back-up generator. Furthermore, compliance with Article 38 would ensure that new sensitive receptors are not exposed to cumulatively significant levels of air pollution. Implementation of these mitigation measures and adherence to Article 38 would reduce the proposed project's contribution to cumulative air quality impacts to a less-than-significant level.

⁸⁸ BAAQMD, *CEQA Air Quality Guidelines*, May 2011, p. 2-1.

Topics:	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
7. GREENHOUSE GAS EMISSIONS— Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects have contributed and will contribute to global climate change and its associated environmental impacts.

The Bay Area Air Quality Management District (BAAQMD) has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines Sections 15064.4 and 15183.5, which address the analysis and determination of significant impacts from a proposed project’s GHG emissions. CEQA Guidelines Section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. Accordingly, San Francisco has prepared *Strategies to Address Greenhouse Gas Emissions* (GHG Reduction Strategy),⁸⁹ which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco’s Qualified GHG Reduction Strategy in compliance with CEQA Guidelines. The actions outlined in the strategy have resulted in a 14.5 percent reduction in GHG emissions in 2010 compared to 1990 levels, exceeding the year 2020 reduction goals outlined in the BAAQMD’s *2010 Clean Air Plan*, Executive Order S-3-05,⁹⁰ and Assembly Bill 32 (AB 32), also known as the Global Warming Solutions Act.^{91, 92}

⁸⁹ San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, 2010. The final document is available online at <http://www.sf-planning.org/index.aspx?page=2627>.

⁹⁰ Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million MTCO2E); by 2020, reduce emissions to 1990 levels (estimated at 427 million MTCO2E); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million MTCO2E).

⁹¹ San Francisco Department of Environment, *San Francisco Climate Action Strategy, 2013 Update*.

⁹² The *Clean Air Plan*, Executive Order S-3-05, and AB 32 goals, among others, are to reduce GHGs in the year 2020 to 1990 levels.

Given that the City's local greenhouse gas reduction targets are more aggressive than the state's and region's 2020 GHG reduction targets and consistent with the long-term 2050 reduction targets, the City's Greenhouse Gas Reduction Strategy is consistent with the goals of EO S-3-05, AB 32, and the BAAQMD's 2010 Clean Air Plan. Therefore, proposed projects that are consistent with the City's Greenhouse Gas Reduction Strategy would be consistent with the goals of EO S-3-05, AB 32, and the BAAQMD's 2010 Clean Air Plan, would not conflict with these plans, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

The following analysis of the proposed project's impact on climate change focuses on the project's contribution to cumulatively significant GHG emissions. Given the analysis is in a cumulative context, this section does not include an individual project-specific impact statement.

Impact C-GG-1: The proposed project would generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions. (Less than Significant)

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

The proposed project would increase the activity on site by introducing up to 320 dwelling units, up to approximately 12,970 gsf of retail/restaurant space, and an underground garage with up to 160 parking spaces plus 3 Carshare spaces to a site that is currently occupied by a small commercial building, a 30-car parking lot, and a partially occupied office building. 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 and wastewater treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

The proposed project would be subject to and required to comply with several regulations adopted to reduce GHG emissions as identified in the GHG Reduction Strategy. The regulations that are applicable to the proposed project include the Commuter Benefits Ordinance, the Emergency Ride Home Program, bicycle parking requirements, San Francisco Green Building Requirements related to energy efficiency and water use reduction, the Stormwater Management Ordinance, the Water Efficient Irrigation Ordinance, the Residential Water Conservation Ordinance, the Residential Energy Conservation Ordinance, the Mandatory Recycling and Composting Ordinance, street tree planting requirements for new construction, and Health Code requirements related to the regulation of back-up diesel generators.

These regulations, outlined in San Francisco’s *Strategies to Address Greenhouse Gas Emissions*, have proven effective, as San Francisco’s GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded EO S-3-05, AB 32, and BAAQMD’s *2010 Clean Air Plan* GHG reduction goals for the year 2020. The proposed project was determined to be consistent with San Francisco’s GHG Reduction Strategy.⁹³ Other existing regulations, such as those implemented through AB 32, will continue to reduce a proposed project’s contribution to climate change. Therefore, the proposed project’s GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations, and thus 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. No mitigation measures are necessary.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
8. WIND AND SHADOW—Would the project:					
a) Alter wind in a manner that substantially affects public areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact WS-1: The proposed project could alter wind in a manner that substantially affects public areas. (Potentially Significant)

The difference in atmospheric pressure between two points on the earth causes air masses to move from the area of higher pressure to the area of lower pressure. This movement of air masses results in wind currents. The direction and speed of wind currents can be altered by natural features of the land or by buildings and structures. Groups of buildings clustered together tend to act as obstacles that reduce wind speeds; the heights, massing, and orientations or profiles of the buildings are some of the factors that can affect wind speeds. When a building is much taller than those around it, rather than a similar height, it can intercept and redirect winds downward that might otherwise flow overhead. The massing of a building can affect wind speeds. In general, slab-shaped buildings have the greatest potential to accelerate ground-level winds, while buildings that have unusual shapes or are more geometrically complex tend to have lesser effects. The orientation or profile of a building is another factor that can affect wind speeds. When the wide face of a building, as opposed to its narrow face, is oriented toward the

⁹³ Greenhouse Gas Analysis: Compliance Checklist, May 29, 2015. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

prevailing wind direction, the building has more surface area to intercept and redirect winds down to ground level.

Implementation of the proposed project would result in the construction of a building that would be 400 feet tall (plus mechanical penthouse). The proposed project, which would be taller than the existing buildings in the vicinity of the project site, has the potential to alter ground-level wind currents in a manner that would substantially affect public areas. As discussed on p. 15, the proposed Oak Plaza would include wind screen canopy features that are intended to buffer ground-level wind speeds to protect public areas from existing hazardous wind conditions to which the proposed new building may contribute.

The potential project-generated wind impacts will be discussed in the EIR, based on the results of a wind tunnel analysis of scale models of the proposed project and its surroundings.

Impact WS-2: The proposed project could create new shadow in a manner that could substantially affect outdoor recreation facilities or other public areas. (*Potentially Significant*)

In 1984, San Francisco voters approved an initiative known as “Proposition K, The Sunlight Ordinance,” which was codified in 1985 as Planning Code Section 295. Planning Code Section 295 prohibits the approval of “any structure that would cast any shade or shadow upon any property under the jurisdiction of, or designated for acquisition by, the Recreation and Park Commission” unless the Planning Commission, with review and comment by the General Manager of the Recreation and Park Department, in consultation with the Recreation and Park Commission, has found that the shadows cast by a proposed project would not have an adverse impact on the use of the property. The period analyzed is from the first hour after sunrise until the last hour before sunset.

Implementation of the proposed project would result in the construction of a building that would be 400 feet tall (plus mechanical penthouse). Four Recreation and Park Department parks that are protected under Planning Code Section 295 are within the potential reach of project shadow during the times of day specified in the ordinance: Patricia’s Green, Page and Laguna Mini Park, Koshland Park, and Hayes Valley Playground. The proposed project, which would be required to comply with the provisions of Planning Code Section 295, has the potential to create new shadow that may substantially affect outdoor recreation facilities or other public areas. The EIR analysis of shadow impacts will be based on a detailed computer-generated shadow study that will model shadows from the proposed project. The potential project-generated shadow impacts will be discussed in the EIR, based on the results of the computer-generated shadow analysis.

Cumulative Impacts

Impact C-WS-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, may result in cumulatively considerable contributions to significant cumulative impacts related to wind or shadow. (*Potentially Significant*)

The results of the cumulative wind tunnel analysis will be discussed and analyzed in the EIR. The EIR analysis of wind impacts will be based on wind tunnel testing of scale models of the project site and surrounding buildings in the project vicinity. Three distinct scenarios will be tested and analyzed in the wind tunnel: an existing scenario in order to understand existing baseline wind conditions at the project site and surroundings; an existing-plus-project scenario to understand the project’s effect on existing wind conditions; and a cumulative scenario to examine the combined effect of the project in conjunction with past, present, and reasonably foreseeable future projects.

The results of the shadow study will be discussed and analyzed in the EIR. The EIR analysis of shadow impacts will be based on a detailed computer-generated shadow study that will model shadows from existing buildings in the vicinity (including those now under construction), shadow from the proposed project, as well as those reasonably foreseeable nearby projects that may combine with project shadow to result in potentially adverse effects on parks and public open spaces.

<i>Topics:</i>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
9. RECREATION—Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Physically degrade existing recreational resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The San Francisco Recreation and Park Department (SFRPD) manages more than 200 parks, playgrounds, and open spaces throughout the City. SFRPD recreation facilities also include 15 recreation centers, 9 swimming pools, 5 golf courses, and more than 300 athletic fields, tennis courts, and basketball courts. In addition to SFRPD recreational resources, San Francisco residents have access to parks and open space owned and operated by other City agencies as well as state and federal agencies, e.g., the Ella Hill Hutch Center, Candlestick Point, and the Presidio. With passage of the 2008 and 2012 Clean and Safe Neighborhood Parks Bonds, the SFRPD

received funds to plan for the development of a number of new City parks in the eastern part of the City (primarily along the waterfront). In addition to augmenting the number of City parks, these bonds have also funded renovations and repairs to parks, playgrounds, pools, and athletic fields throughout the City.

The project site is located in SFRPD Park Service Area 2 and is currently developed with commercial and retail uses. There are no public parks, open spaces, playgrounds, or other recreational resources immediately adjacent to the project site. The recreational resources listed below are located within a ½-mile radius of the project site and are accessible by walking, bicycling, or transit:

- The 0.45-acre Patricia's Green, which includes a playground, lawns, rotating art installations, picnic tables, and seating;
- The 0.61-acre Hayes Valley Playground, which includes a clubhouse, a central stage and plaza, a community garden, a playground, outdoor fitness equipment, a tennis court, and a basketball court;
- The 5.03-acre Margaret S. Hayward Playground, which includes a clubhouse, two softball fields with bleachers, two outdoor tennis courts, one outdoor basketball court, an outdoor volleyball court, a street soccer court, a multi-purpose field, and a playground with a sandpit;
- The 1.81-acre Buchanan Street Mall, which is located between Willow and Grove streets and includes pathways along its edges and small berms, trees, and play structures along its central spine;
- The 0.82-acre Koshland Park, which includes a lawn, a playground with a sand pit, a half basketball court, and a community garden;
- The 0.15-acre Page and Laguna Mini-Park, which is located between two residential homes and includes a curving central walkway, benches, and a community garden;
- The 0.08-acre Page Street Community Garden, which is located between Webster and Buchanan streets;
- The South of Market (SoMa) West Skate Park and Dog Play Area, which are located on the Caltrans right-of-way parcels underneath the Central Freeway, between Valencia and Otis streets.
- The McCoppin Hub Plaza, which is located at the north end of McCoppin Street between Valencia and Market streets;
- The 0.85-acre War Memorial Open Space, which is located between the War Memorial Opera House and the Veteran's War Memorial Building and includes an oval lawn surrounded by a double row of trees;
- The 5.38-acre Joseph L. Alioto Performing Arts Piazza, which includes a central concourse, two playgrounds, seating, and lawn areas; and
- The 3.03-acre United Nations Plaza, which includes a central concourse, lawn areas planted with trees, seating, and a large sculpted concrete fountain.

Impact RE-1: The proposed project would not increase use of existing neighborhood parks and regional parks or other recreation facilities such that substantial physical deterioration or physical degradation of existing recreational resources would occur or be accelerated, nor would it include or result in the need for the expansion or construction of recreational facilities beyond those included in the proposed project. (*Less than Significant*)

The *San Francisco General Plan Recreation and Open Space Element (ROSE)* defines a “high needs area” of the City as an area that is projected to absorb future population growth and that exhibits a combination of high population densities; high percentages of children and youth, seniors, and low-income households relative to the City as a whole; and low access to open space.⁹⁴ Based on these variables, a composite map was generated to identify areas of the City that receive priority when opportunities to acquire land for development of new parks arise and when funding decisions for the renovation of existing parks are made (Map 7 of the ROSE). As shown on Maps 4a through 4c of the ROSE, the project site is located within the ½-mile service area of “Active Use/Sports Fields” and “Passive Use/Tranquil Spaces” and the ¼-mile service area of “Playgrounds.” As shown on Maps 5a, 5c, and 5d of the ROSE, the project site is not within an area of the City that exhibits higher population densities or higher percentages of children and youth and seniors relative to the City as a whole. However, it is within an area with a higher percentage of low-income households relative to the City as a whole (Map 5c) and an area designated to absorb future population growth (Map 6 of the ROSE).⁹⁵ As shown on Map 7, the project site exhibits a greater need than some areas of the City and a lesser need than other areas; however, it is not located within a “high needs area.”

As described under Initial Study Topic E.2, Population and Housing, pp. 51-55, implementation of the proposed project would add approximately 723 residents to the project site. This would represent an approximately 22 percent increase over the reported 2010 population within Census Tract 168.02, which includes the project site; an approximately 2.3 percent increase over the reported 2010 population within the project area (Census Tract 168.02 and adjacent Census Tracts within a quarter-mile of the project site); and an approximately 0.09 percent increase over the reported 2010 citywide population. The project area as defined by the Census Tract boundaries is roughly analogous to the area covered in the *Market and Octavia Area Plan*. The residential population growth attributable to the proposed project would represent approximately 9.5 percent of the anticipated net increase of 7,620 residents within the Market and Octavia

⁹⁴ San Francisco General Plan, Recreation and Open Space Element, April 2014, Map 4 through Map 7, pp. 21-24. Available online at http://openspace.sfplanning.org/docs/Recreation-and-Open-Space-Element_APRIL-2014-ADOPTED.pdf. Accessed October 6, 2014.

⁹⁵ The project site is located within the *Market and Octavia Area Plan* and the Downtown-Van Ness-Geary Priority Development Area. The *Market and Octavia Neighborhood Plan* was developed to accommodate a sizable increment of the City’s housing growth in the future. ABAG’s *Plan Bay Area, Projections 2013* identified this area as one that would accommodate a significant amount of new housing and jobs by 2040.

neighborhood by the year 2025.⁹⁶ This residential growth would increase the demand for public parks and open spaces, playgrounds, and other recreational resources in the project area and citywide. However, the increase in demand would not be in excess of amounts expected, provided for, or planned for in the *Market and Octavia Area Plan* and the City as a whole.⁹⁷

As described above, the project site is within the service areas of a number of public parks and open spaces, playgrounds, and other recreational resources. These local recreational resources can be accessed from the project site by walking, bicycle, or transit. The proposed project would provide Planning Code-required open space for project residents: 2,880 sq. ft. of private open space and 11,523 sq. ft. of common open space. At the east end of Oak Street the proposed project would also include an 11,050-sq.-ft. (13,650-sq.-ft. under the variant) pedestrian plaza (Oak Plaza) within the public right-of-way (see **Section A, Project Description**, p.15). In addition, a 2,566-sq.-ft. privately owned, publicly accessible open space would be developed at the east end of the project site and along the perimeter of the ground floor along Market Street. The private and common open spaces, Oak Plaza, and the privately owned, publicly accessible open space associated with the proposed One Oak Street building would partly serve the demand for open space and recreational facilities generated by the project residents.

Based on the number of public parks and open spaces, playgrounds, and other recreational resources in the project vicinity; the availability of open space on, and in the immediate vicinity of, the project site; and the incremental increase in population due to the proposed project, project-generated demand could be accommodated by the existing local recreational resources. The Market and Octavia Area Plan anticipates that Brady Park would one day become a new open space that could address open space needs in the vicinity. Project residents could also use other recreational resources throughout the City and region. Therefore, the proposed project would not result in a substantial increase in the use of existing neighborhood parks and open spaces, playgrounds, and other recreational resources in the project vicinity or the use of citywide/regional recreational resources such that substantial deterioration or degradation of these existing recreational resources would occur or be accelerated. Furthermore, project-generated demand would not be substantial enough (i.e., there would be no unmet demand) to warrant the construction or expansion of recreational facilities that could, in turn, have an adverse effect on the environment. No mitigation measures are necessary.

⁹⁶ San Francisco Planning Department, *Market and Octavia Neighborhood Plan EIR*, 2005, p. 4-72. Available online at <http://www.sf-planning.org/index.aspx?page=1714>. Accessed September 29, 2014

⁹⁷ The Market and Octavia neighborhood was envisioned as a network of “living” streets and open spaces highlighted by the development of parks such as Hayes Green (already built and renamed Patricia’s Green), Brady Park, McCoppin Square (already built and renamed McCoppin Hub Plaza), and Octavia Plaza.

Cumulative Impacts

Impact C-RE-1: The proposed project, in combination with other past, present, or reasonably foreseeable projects, would not contribute considerably to a significant impact on recreational resources leading to their physical deterioration or physical degradation, nor would it result in the construction or expansion of recreational facilities resulting in physical effects on the environment. (*Less than Significant*)

The types of cumulative impacts relevant to recreation include the following: (1) the project's contribution to the cumulative increase in demand for public recreational resources that could result in physical deterioration of such resources, and (2) other reasonably foreseeable projects that could result in a loss of recreational resources. The 2010 U.S. Census reported a population of 805,235 in the City and County of San Francisco. The population in San Francisco in 2040 is estimated to be about 1,085,700 (approximately 280,465 new residents).⁹⁸ The citywide population increase between 2010 and 2040 would be substantial, and would result in increased demand for recreational resources in the City in the future. No projects currently under consideration in the general vicinity would result in the loss of recreational resources.

As described under Impact RE-1, implementation of the proposed project would result in the introduction of approximately 723 new residents to the project area, which would incrementally increase demand for recreational resources in the project area and in San Francisco generally. The provision of Planning Code-required private and common open space; the new Oak Plaza; and an on-site privately owned, publicly accessible open space would partially offset the demand for recreational resources and the potential for the deterioration and/or degradation of existing recreational resources in the project area.

As discussed in Initial Study Topic E.2, Population and Housing, on pp. 52-54, the population increase attributable to the proposed project would represent approximately 0.3 percent of the projected citywide increase of about 280,465 people between 2010 and 2040, and approximately 9.5 percent of the projected area-wide increase of about 7,620 residents in the Market and Octavia neighborhood by 2025 (from 28,905 to 36,525).⁹⁹ The population increase attributable to nearby reasonably foreseeable projects (approximately 4,625 new residents) would constitute approximately 1.7 percent of citywide growth and the majority of the projected growth in the Market and Octavia neighborhood, which is envisioned as an area that would accommodate a sizable increment of the City's future growth.¹⁰⁰ The increase in the use of nearby local recreational resources associated with the anticipated population increase under the proposed project would not constitute a cumulatively considerable increase in the use of these recreational resources and would not contribute considerably to their physical deterioration or to the need to

⁹⁸ ABAG, *Projections 2013*, p. 75.

⁹⁹ *Ibid.*

¹⁰⁰ 1532 Howard Street (which represents 15 of the 2,047 new residential units) is the only reasonably foreseeable project not located within the Market and Octavia neighborhood.

construct or expand recreational facilities to meet the additional demand. Furthermore, as described above, implementation of the *Market and Octavia Area Plan* would include the development of two more parks in the project area, Brady Park and Octavia Plaza (all within a half-mile radius of the project site).

As with the proposed project, these anticipated projects would be consistent with 2040 population growth projections and would increase the demand for public parks and open spaces, playgrounds, and other recreational resources in the project area and citywide. However, the increase in demand would not be in excess of amounts expected, provided for, or planned for in the *Market and Octavia Area Plan* and the City as a whole. Therefore, when considered in combination with other past, present, or reasonably foreseeable projects, implementation of the proposed project would not result in a cumulatively considerable contribution to significant recreation-related cumulative impacts. No mitigation is necessary.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
10. UTILITIES AND SERVICE SYSTEMS— Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact UT-1: Implementation of the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, would not exceed the capacity of the wastewater treatment provider that would serve the project, and would not require the construction of new or expansion of existing wastewater treatment or stormwater drainage facilities. (*Less than Significant*)

The project site is located in the Bayside basin and is served by the City's combined sanitary sewer and stormwater system.¹⁰¹ This system collects, transports, and treats sanitary sewage and stormwater runoff in the same facilities. Discharges to federal and state waters are governed by two National Pollutant Discharge Elimination System (NPDES) permits: the 2008 Bayside Permit (NPDES Permit No. CA0037664) and the 2009 Oceanside Permit (NPDES Permit No. CA0037681). These permits are issued and enforced by the San Francisco Bay Regional Water Quality Control Board (RWQCB).

All wastewater and stormwater flows that emanate from the Bayside basin are subject to the 2008 Bayside Permit. This permit specifies discharge prohibitions, dry-weather effluent limitations, wet-weather effluent performance criteria, receiving water limitations, sludge management practices, and monitoring and reporting requirements for the Southeast Water Pollution Control Plant (Southeast Plant), the North Point Wet-Weather Facility, and the Bayside Wet-Weather Transport/Storage and Diversion Structures, a series of storage/transport boxes located around the perimeter of the City's bayside.¹⁰² During wet weather the capacity at the Southeast Plant is supplemented by the North Point Wet-Weather Facility and the Bayside Wet-Weather Transport/Storage and Diversion Structures. If wet-weather flows exceed the capacity of the overall system, the excess (primarily stormwater) is discharged from one of 36 combined sewer overflow (CSO) structures located along the waterfront. The permit prohibits overflows from the CSO structures during dry weather, and requires wet-weather overflows to comply with the nine minimum controls specified in the United States Environmental Protection Agency's (USEPA) Combined Sewer Overflow Control Policy.

Project-related wastewater and stormwater would flow to the City's combined stormwater/sewer system and would be treated to standards contained in the City's NPDES Permit for the Southeast Water Pollution Control Plant prior to discharge into San Francisco Bay. The NPDES standards are set and regulated by the San Francisco Bay Area RWQCB. Therefore, the proposed project would not conflict with RWQCB requirements.

Implementation of the proposed project would incrementally increase wastewater flows from the project site due to the introduction of about 723 residents.¹⁰³ The proposed project would incorporate water-efficient fixtures, as required by Title 24 of the California Code of Regulations and the City's Green Building Ordinance. Compliance with these regulations would reduce wastewater flows and the amount of potable water used for building functions. The

¹⁰¹ San Francisco is roughly divided into two major drainage areas: the Bayside and Westside basins, which are further divided into eight subdrainage areas. Draft San Francisco Sewer System Improvement Program Report, August 10, 2010, Figure 1. San Francisco Major Drainage Basins and Wastewater Facilities, p. 2. Available online at <http://sfwater.org/modules/showdocument.aspx?documentid=984>. Accessed October 9, 2012.

¹⁰² The storage/transport boxes provide treatment consisting of settling and screening of floatable materials inside the boxes and is equivalent to primary treatment at the wastewater treatment plants.

¹⁰³ There would be a net reduction of four on-site employees (from 45 to 41).

San Francisco Public Utilities Commission's (SFPUC's) infrastructure capacity plans account for projected population and employment growth. The incorporation of water-efficient fixtures into new development is also accounted for by the SFPUC, because widespread adoption can lead to more efficient use of existing capacity. For these reasons, the population increase associated with the proposed project would not require the construction of new or expansion of existing wastewater treatment facilities.

The project site has been developed since the late 1800s, and implementation of the proposed project would not result in an increase in impervious surfaces. The City's Stormwater Management Ordinance (Ordinance No. 83-10) requires the proposed project to maintain, reduce, or eliminate the existing volume and rate of stormwater runoff discharged from the project site. To achieve this objective, the proposed project would implement and install appropriate stormwater management systems that retain runoff on site, promote stormwater reuse, and limit (or eliminate altogether) site discharges from entering the City's combined stormwater/sewer system. This, in turn, would limit the incremental demand on both the collection system and treatment facilities resulting from stormwater discharges, and would minimize the potential for upsizing or constructing new facilities. For these reasons, the proposed project would not substantially increase the demand for wastewater or stormwater treatment.

As discussed above, implementation of the proposed project would not exceed wastewater treatment requirements of the applicable RWQCB, would not exceed the capacity of the wastewater treatment provider that would serve the project, and would not require the construction of new or expansion of existing wastewater treatment or stormwater drainage facilities. This impact would be less than significant, and no mitigation measures are necessary.

Impact UT-2: The SFPUC has sufficient water supply available to serve the proposed project from existing entitlements and resources and would not require new or expanded water supply resources or entitlements. (*Less than Significant*)

The SFPUC provides an average of approximately 265 million gallons of water per day to approximately 2.5 million people in San Francisco, Santa Clara, Alameda, San Mateo, and Tuolumne counties.¹⁰⁴ Implementation of the proposed project, which consists of up to 320 dwelling units and up to approximately 12,970 gsf of retail/restaurant space, would incrementally increase the demand for water in San Francisco. It is anticipated that the approximately 723 new residents would use 50 gallons per capita per day (gpcd), so the total water usage of the new residents would be approximately 36,150 gpcd.¹⁰⁵ In addition, the

¹⁰⁴ San Francisco Public Utilities Commission, *2010 Urban Water Management Plan for the City and County of San Francisco*, adopted June 2011 (hereinafter "2010 UWMP"), pp. 7, 14, 22-25. Available online at <http://www.sfwater.org/Modules/ShowDocument.aspx?documentID=1055>. Accessed September 29, 2014.

¹⁰⁵ *2010 UWMP*, p. 34.

proposed project would not increase the daily number of on-site employees and visitors to the project site over existing conditions.

All large-scale projects in California subject to CEQA are required to obtain an assessment from a regional or local jurisdiction water agency to determine the availability of a long-term water supply sufficient to satisfy project-generated water demand under SB 610 and SB 221.45. Under SB 610, a Water Supply Assessment (WSA) is required if a proposed project is subject to CEQA in an Environmental Impact Report or Negative Declaration and is any of the following: (1) a residential development of more than 500 dwelling units; (2) a shopping center or business employing more than 1,000 persons or having more than 500,000 square feet of floor space; (3) a commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; (4) a hotel or motel with more than 500 rooms; (5) an industrial or manufacturing establishment housing more than 1,000 persons or having more than 650,000 square feet or 40 acres; (6) a mixed-use project containing any of the foregoing; or (7) any other project that would have water demand at least equal to a 500-dwelling-unit project. The proposed project would not exceed any of these thresholds and, therefore, is not required to prepare a WSA.

In June 2011, the SFPUC adopted a resolution finding that the SFPUC's *2010 Urban Water Management Plan* (2010 UWMP) adequately fulfills the requirements of the water assessment for urban water suppliers. The 2010 UWMP uses year 2035 growth projections prepared by the Planning Department and ABAG to estimate future water demand. The proposed project is within the demand projections of the 2010 UWMP and would not exceed the water supply projections.

Although the total amount of water demand would increase at the project site, the proposed building would be designed to incorporate water-efficient fixtures as required by Title 24 of the California Code of Regulations and the City's Green Building Ordinance. Because the proposed water demand could be accommodated by existing and planned water supply anticipated under the 2010 UWMP, the proposed project would not result in a substantial increase in water use and would be served from existing water supply entitlements and resources. In addition, the proposed project would include water conservation devices such as low-flow showerheads and low-flush toilets. For these reasons, there would be sufficient water supply available to serve the proposed project from existing water supply entitlements and resources, and new or expanded resources or entitlements would not be required. This impact would be less than significant, and no mitigation measures are necessary.

Impact UT-3: The proposed project would be served by a landfill with sufficient permitted capacity and would comply with federal, state, and local statutes and regulations related to solid waste. (*Less than Significant*)

In 1988, the City and County of San Francisco contracted for the disposal of 15 million tons of solid waste at the Altamont Landfill. As of March 2013, San Francisco's remaining capacity at the landfill was approximately 1 million tons out of the original 15-million-ton capacity.¹⁰⁶ At current disposal rates, San Francisco's available landfill space under the existing contract will run out in January 2016. However, as of August 2005 (the latest available record), the landfill has a closure date of January 1, 2025, and a remaining capacity of 74 percent.¹⁰⁷

Reports filed by the San Francisco Department of the Environment show that the City generated approximately 628,900 tons of waste material in 2007; by 2012, that figure decreased to approximately 454,600 tons.¹⁰⁸ Waste diverted from landfills is defined as recycled or composted. San Francisco had a goal of 75 percent solid waste diversion by 2010; it currently has a goal of 100 percent solid waste diversion by 2020. San Francisco currently diverts 80 percent of its solid waste from landfills.¹⁰⁹

With implementation of the proposed project, new trash receptacles would be in place at the project site and new residents would participate in the City's recycling and composting programs and other efforts to reduce the solid waste disposal stream. Based on the City's solid waste diversion rate and the Altamont Landfill's remaining capacity, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. This impact would be less than significant, and no mitigation measures are necessary.

The California Integrated Waste Management Act of 1989 (AB 939) requires municipalities to adopt an Integrated Waste Management Plan (IWMP) to establish objectives, policies, and programs related to waste disposal, management, source reduction, and recycling. San Francisco Ordinance No. 27-06 requires a minimum of 65 percent of all construction and demolition debris

¹⁰⁶ San Francisco Department of the Environment, Zero Waste FAQ. Available online at <http://www.sfenvironment.org/zero-waste/overview/zero-waste-faq>. Accessed September 29, 2014.

¹⁰⁷ California Department of Resources Recycling and Recovery, Facility/Site Summary Details: Altamont Landfill and Resource Recovery (01-AA-0009). Available online at <http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0009/Detail/>. Accessed September 29, 2014.

¹⁰⁸ California Department of Resources Recycling and Recovery, Jurisdiction Disposal Tonnage Trend: San Francisco. Available online at <http://www.calrecycle.ca.gov/LGCentral/Reports/Jurisdiction/ReviewReports.aspx>. Accessed September 29, 2014.

¹⁰⁹ San Francisco Department of the Environment, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate," available online at <http://www.sfenvironment.org/news/update/san-francisco-sets-north-american-record-for-recycling-composting-with-80-percent-diversion-rate>. Accessed September 29, 2014.

to be recycled and diverted from landfills. San Francisco Ordinance No. 100-09 requires everyone in San Francisco to separate their solid waste into recyclables, compostables, and trash. The proposed project would be subject to and would comply with San Francisco Ordinance No. 27-06, San Francisco Ordinance No. 100-09, and all other applicable statutes and regulations related to solid waste. In addition, soils from excavation activities as well as building debris and materials (e.g., asbestos, fluorescent lights, lead paint) could be classified as a California hazardous waste. Accordingly, the proposed project would be required to follow state and federal regulations related to the disposal of hazardous waste. This impact would be less than significant, and no mitigation measures are necessary.

Cumulative Impacts

Impact C-UT-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a considerable contribution to cumulative impacts on utilities and service systems. (*Less than Significant*)

Cumulative development in the project vicinity, which includes proposed projects anticipated under the *Market and Octavia Area Plan*, would result in an intensification of land uses, a cumulative increase in water consumption, and a cumulative increase in wastewater and solid waste generation. The SFPUC has accounted for such growth in its service projections, and the City has implemented various programs to divert 80 percent of its solid waste from landfills. Nearby cumulative projects would be subject to the same water conservation, wastewater discharge, recycling and composting, and construction demolition and debris ordinances applicable to the proposed project. Compliance with these ordinances would reduce the effects of nearby cumulative projects to less-than-significant levels. For these reasons, the proposed project would not contribute to a significant cumulative impact on utilities and service systems in combination with past, present, and reasonably foreseeable future projects in the project vicinity to create a cumulative impact on utilities and service systems.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
11. PUBLIC SERVICES— Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, police protection, schools, parks, or other services?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project-related impacts on parks are discussed under Initial Study Topic E.9, Recreation, on pp. 111-116.

Impact PS-1: The proposed project would not result in substantial adverse physical impacts associated with the provision of fire protection, police protection, schools, and library services in order to maintain acceptable service ratios, response times, or other performance objectives. (*Less than Significant*)

Fire Protection and Emergency Medical Services

The San Francisco Fire Department (SFFD), headquartered at 698 Second Street, provides fire suppression services and unified emergency medical services (EMS) and transport, including basic life support and advanced life support services, in the City and County of San Francisco. Emergency response operations include fire suppression; tactical rescues; emergency medical care; fire prevention; arson investigations; responses to natural disasters, mass-casualty incidents, and hazardous-materials incidents; and fire and EMS dispatch supervision. In January 2012 the City reestablished its exclusive operating area for emergency response under an agreement with the state that requires the SFFD to respond to a minimum of 80 percent of all EMS calls handled by the City and 10 to 20 percent of all calls handled by privately operated ambulance companies.^{110,111} In 2013 the SFFD responded to 120,718 calls (27,843 fire suppression calls and 92,875 EMS calls).¹¹² Between 2007 and 2013 the SFFD experienced an 18 percent increase in calls, with fire suppression calls increasing by about 6 percent and EMS calls increasing by about 22 percent.¹¹³ In 2013, the response rate was just 73 percent, down from 98 percent in 2007, the year prior to the rescission of City's previous exclusive operating area agreement.¹¹⁴

The SFFD fire suppression companies have three divisions: the Airport Division (serving the San Francisco International Airport) and Divisions 2 and 3 (serving the rest of San Francisco). Division 2 is divided into four battalions, and Division 3 is divided into five battalions. The SFFD has 43 fire stations located throughout the City as well as three stations located at the San Francisco International Airport. SFFD resources include 43 engine companies, 19 truck companies, 2 heavy rescue squad units, 2 fire boats, multiple special purpose units, and a dynamically deployed¹¹⁵ fleet of 43 ambulances. In addition, the SFFD Emergency Services Division oversees the operation of Station 49 at 1415 Evans Street, from which all ambulances are deployed. The SFFD employs approximately 1,395 uniformed personnel and requires a daily

¹¹⁰ City and County of San Francisco, Performance Audit of Emergency Medical Services Resources at the San Francisco Fire Department, June 10, 2014, p. 12. Available online at <http://www.sfbos.org/Modules/ShowDocument.aspx?documentid=49337>. Accessed October 8, 2014.

¹¹¹ San Francisco Department of Emergency Management, EMS System Providers. Available online at <http://www.sfdem.org/index.aspx?page=183>. Accessed October 8, 2014.

¹¹² City and County of San Francisco, Performance Audit of Emergency Medical Services Resources at the San Francisco Fire Department, June 10, 2014, p. 3. Available online at <http://www.sfbos.org/Modules/ShowDocument.aspx?documentid=49337>. Accessed October 8, 2014.

¹¹³ Ibid.

¹¹⁴ Ibid, p. 12.

¹¹⁵ Dynamic deployment is the SFFD's ambulance dispatch strategy of estimating demands and stationing ambulances to increase their mobility and ensure the fastest response times.

fire suppression staffing level of 297 uniformed personnel.¹¹⁶ Approximately 23 percent of uniformed personnel are classified as EMS staff and 77 percent are classified as fire suppression staff.¹¹⁷ The SFFD response for all calls reporting either smoke or fire in a building typically includes 35 SFFD personnel in the configuration shown below:

- 3 engine companies – each with 1 officer and 3 firefighters;¹¹⁸
- 2 truck companies – each with 1 officer and 4 firefighters;
- 1 heavy rescue squad – 1 officer and 3 firefighters;
- 1 division chief – 1 assistant chief and 1 incident support specialist;
- 2 Battalion Chiefs – 1 Battalion Chief (3 out of 9 Battalion Chiefs have an Incident Support Specialist); and
- 1 medic unit – 1 paramedic and 1 emergency medical technician.

The project site is located within the Division 3 service area, which encompasses the South of Market area to the southwestern boundaries of the City up to the southern border. The project site is in the First Alarm area¹¹⁹ for Station 36 (Battalion 2), located one block west of the project site at 109 Oak Street. Station 36 has one engine with one officer and three firefighters, the Chief of Battalion 2, and a hazardous materials unit. Renovations to Station 36 were recently completed and were funded through the 2010 Earthquake Safety and Emergency Response Bond.¹²⁰ Other fire stations in the vicinity include Station 6 (Battalion 2) at 135 Sanchez Street (about 1 mile west), Station 3 (Battalion 2) at 1067 Post Street (about 1 mile north), and Station 5 (Battalion 4/Division 2) at 1301 Turk Street (about 1.2 miles northwest).¹²¹ Station 6 houses one engine with one officer and three firefighters, one aerial (ladder) truck with one officer and four firefighters, and a decontamination unit. Station 3 has one engine with one officer and three

¹¹⁶ City and County of San Francisco, Performance Audit of the City's Practices to Recruit, Retain and Promote Uniformed Fire Staff and the Fire Department's Use of Overtime to Meet Minimum Staffing Requirements, January 13, 2014, pp. 9 and 64. Available online at <http://www.sfbos.org/Modules/ShowDocument.aspx?documentid=47587>. Accessed October 8, 2014.

¹¹⁷ Ibid, p. 19.

¹¹⁸ Currently, Basic Life Support engines are staffed with firefighters cross-trained as emergency medical technicians and Advanced Life Support engines are staffed with at least one firefighter cross-trained as a paramedic.

¹¹⁹ The First Alarm area is the geographic area in which a station is responsible for arriving first in the case of an emergency.

¹²⁰ City and County of San Francisco, Earthquake Safety and Emergency Response Bond Monthly Status Report, June 2014. Available online at http://www.sfearthquakesafety.org/uploads/1/9/4/3/19432507/eser_06-30-2014_goboc_report.pdf. Accessed October 13, 2014.

¹²¹ SFFD, *SFFD Fire Station Locations*. Available online at <http://www.sf-fire.org/Modules/ShowDocument.aspx?documentid=1975>. Accessed October 8, 2014.

firefighters and one aerial (ladder) truck with one officer and four firefighters. Station 5 houses one engine with one officer and three firefighters, and a light rescue unit.¹²²

Implementation of the proposed project would result in an intensification of land uses on the project site and the creation of the proposed Oak Plaza, including a wind canopy. The proposed project would add approximately 723 people to the project site, an approximately 22 percent increase over the existing residential population for Census Tract 168.02, as reported in the 2010 U.S. Census (3,264 people).

Current emergency vehicle operations allow for the contraflow use of the one-way, westbound Oak Street (between Van Ness Avenue and Franklin Street) in order to gain access to Van Ness Avenue. With implementation of the proposed Oak Plaza, vehicle circulation on Oak Street would be changed from one-way westbound between Franklin Street and Van Ness Avenue, to two-way operations between Franklin Street and the proposed Oak Plaza. Emergency vehicles, however, would continue to have access through Oak Plaza. Rolled curb cuts at the east and west ends of the plaza would allow emergency vehicles to cross the plaza when necessary. In addition, the Van Ness Avenue stop bar for southbound vehicular traffic would be relocated to align with the northern edge of the fire lane so that emergency vehicles could turn onto Van Ness Avenue unimpeded. The proposed Oak Plaza and wind canopy would be designed to provide a 26-foot-wide emergency access zone, which includes a 14-foot-wide fire lane and 12 feet of additional clearance for emergency access to and from Van Ness Avenue. These dimensions meet the *Better Streets Plan* requirements for emergency vehicle access and would allow unimpeded emergency vehicle access from Oak Street onto Van Ness Avenue for emergency vehicles (ambulance, 35-foot fire truck, 57-foot ladder truck). The canopy would be at least 40 feet above the plaza, allowing appropriate vertical clearance for all emergency vehicles. Thus, emergency vehicles would be accommodated by the proposed Oak Plaza. In addition, and as part of the San Francisco Fire Department's building permit review process, drawings for the proposed emergency access zone and wind screen canopy features in the proposed plaza would be reviewed by the Fire Department to ensure that emergency access to Van Ness Avenue and to the existing and proposed buildings in the immediate area would meet SFFD requirements.

Although the number of fire suppression and EMS calls received from the project site could increase, the project-related increase would be incremental, with any additional costs funded largely through project-related increases to the City's tax base, which would, in turn, support SFFD personnel recruitment and training. This incremental increase would not be substantial in light of the existing demand for fire suppression and emergency medical services in the City. The proposed project would not generate a demand for new or physically altered facilities or increased staffing needs, nor would the proposed project affect the SFFD's ability to meet its response time

¹²² The 2014 Earthquake Safety and Emergency Response Bond includes funding for the seismic upgrade of Station 5.

goals. Therefore, the proposed project would have a less-than-significant impact on fire protection and emergency medical services. No mitigation is necessary, and this topic will not be discussed in the EIR.

In addition, construction of the proposed 39-story mixed-use, high-rise building would be required to comply with all regulations of the San Francisco Building and Fire Codes that establish requirements for fire safety and fire prevention, such as the provision of smoke alarms, sprinkler system, appropriate building access, and emergency response notification systems. Further, the SFFD recommends that all new high-rise buildings use a system to assist Fire Department and/or EMS personnel upon arrival, including a protocol to greet paramedics at the door of the building or in the street to help them reach the patient, and to provide express elevator service when necessary. The proposed project would follow these protocols, and building management would have an on-site employee trained in these procedures. These measures would ensure that any potential delay to emergency medical response due to building height would be minimized, and that care would be provided as quickly as possible.

Police Protection Services

The San Francisco Police Department (SFPD), headquartered at 850 Bryant Street, provides police protection in the City and County of San Francisco. The SFPD divides the City into two divisions, Metro and Golden Gate, and each division is divided into five districts.¹²³ The project site is located within the Northern Police District, which is made up of Pacific Heights, Japantown, Polk Gulch, Russian Hill, the Marina, and a portion of the Western Addition.¹²⁴ The Northern Station, located at 1125 Fillmore Street, is part of the Metro Division and serves a 5.3-square-mile area with a population of approximately 96,148 people.¹²⁵ It is approximately 1.2 miles northwest of the project site and is staffed by about 138 officers.¹²⁶ The SFPD's deployment of resources is based on the use of computer statistics and allows the SFPD to proactively address public safety issues before they occur, instead of simply reacting to crimes already committed.¹²⁷ According to the SFPD Crime Maps, the most reported crimes in a 0.5-mile radius of the project site are disturbing the peace, assault, and theft/larceny. Other

¹²³ San Francisco Police Department (SFPD), Operations. Available online at <http://sf-police.org/index.aspx?page=23>. Accessed October 13, 2014.

¹²⁴ SFPD, Northern District Map. Available online at <http://sanfranciscopolice.org/Modules/ShowDocument.aspx?documentid=12829>. Accessed October 13, 2014.

¹²⁵ SFFD, Compstat Report April 2014. Available online at <http://sf-police.org/index.aspx?page=4581>. Accessed October 14, 2014.

¹²⁶ The Public Safety Strategies Group, *San Francisco Police Department District Station Boundaries Analysis Final Report*, May 13, 2008, pp. D5–D6. Available online at <http://sf-police.org/Modules/ShowDocument.aspx?documentid=14683>. Accessed October 14, 2014.

¹²⁷ The SFPD has adopted the use of computer statistics to guide its deployment of resources to more effectively address crime throughout the City. Available online at <http://www.sf-police.org/index.aspx?page=3254>. Accessed October 14, 2014.

frequently reported crimes in the area include vehicle break-in/theft, burglary, and vandalism. These crime data statistics are based on reports taken from a 6-month time period from April 17, 2014 through October 14, 2014.¹²⁸

Development of the project site would replace two buildings and a surface parking lot with new residential, retail, and parking uses. The proposed project would generate an increase of approximately 723 people on the project site. These new residents would result in an approximately 22 percent increase over the existing residential population for Census Tract 168.02, as reported in the 2010 Census (3,264 people). The SFPD bases its estimates for additional facilities on calls for service, types and times of traffic and pedestrian flow patterns, and operational hours of uses within each Police District area, not on increases in population.

The project sponsor would, as part of the building permit review process, work with the SFPD and the Department of Emergency Management to ensure that emergency access to the project site and nearby properties would not be impeded by the proposed project and that emergency communication systems within the new high-rise building are functional and appropriately designed. Communication systems would be incorporated into the proposed project to the extent practicable based on consultation with SFPD.

SFPD policy is to accommodate the additional growth with existing infrastructure through re-deployment of resources from other areas of the City, if needed. Increased demand for police services due to the additional 723 residents anticipated under the proposed project would be accommodated in this manner. This incremental increase would not be substantial in light of the existing demand for police protection in the City. The proposed project would not generate a demand for new, or physically altered, facilities or increased staffing needs, nor would the proposed project affect the SFPD's ability to meet its response time goals. Therefore, the proposed project would have a less-than-significant impact on police protection services. No mitigation is necessary, and this topic will not be discussed in the EIR.

Public Schools

The San Francisco Unified School District (SFUSD) provides primary and secondary education in San Francisco. The SFUSD manages 64 elementary schools (K-5), 12 middle schools (grades 6-8), 18 high schools (grades 9-12), and 9 alternatively configured schools with a total enrollment of 53,270 students. An additional 511 students are enrolled in County programs and approximately 3,268 students are enrolled in charter schools.^{129,130} According to the 2010 U.S.

¹²⁸ SFPD, *SFPD CrimeMAPS*. Available online at <http://www.crimemapping.com/map/ca/sanfrancisco>. Accessed October 14, 2014.

¹²⁹ San Francisco Unified School District (SFUSD), Research Planning and Accountability Data Center, School List and Summary – Student Enrollment. Available online at <http://tinyurl.com/leko089>. Accessed October 14, 2014.

Census, there are approximately 90,000 school-aged children in San Francisco.¹³¹ Over the past five years, elementary school student enrollment in the SFUSD has increased from approximately 21,663 to 23,270, while middle school and high school enrollment has decreased. Overall student enrollment between the 2008-2009 and 2013-2014 academic years has decreased slightly from 55,240 to approximately 53,270.¹³² The SFUSD projects its overall enrollment will increase slightly through 2014, with the largest increases projected for the elementary and middle school level and a slight increase projected for the high school level.¹³³

The project site is within the attendance area of John Muir Elementary School at 380 Webster Street, six blocks west of the project site.¹³⁴ For the 2013-2014 academic year, John Muir Elementary had a total K-5 enrollment of 258 students.¹³⁵ According to the current SFUSD enrollment and matriculation process, students who attend this elementary school would subsequently attend James Lick Middle School.¹³⁶ After middle school, the students would then apply to any high school across the City.

Implementation of the proposed project would add 320 market rate residential units, which could increase the demand for schools by about 16 students based on a student generation rate of 0.05 students per market rate unit.¹³⁷ If the project sponsor were to meet the affordable housing requirements on site (282 market rate units and 38 below market rate units), about 24 students would be added to the SFUSD population based on a student generation rate of 0.25 students for below market rate units and 0.05 students for market rate units.¹³⁸ As discussed above,

¹³⁰ Five charter schools submit their student data directly to the California Department of Education rather than through SFUSD; thus, the total charter school enrollment number is greater than 3,268.

¹³¹ U.S. Census Bureau, American FactFinder, Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data. Available online at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed October 14, 2014.

¹³² SFUSD, Research Planning and Accountability Data Center, School List and Summary – Student Enrollment. Available online at <http://tinyurl.com/lekoo89> and <http://tinyurl.com/lqge346>. Accessed October 14, 2014.

¹³³ SFUSD, SFUSD Recommended Budget for Fiscal Year 2014 – 2015, p. 13. Available online at <http://tinyurl.com/k62bqwp>. Accessed October 14, 2014.

¹³⁴ For elementary schools, a lottery that gives some weight to the attendance area in which the student resides is used to assign students. There is no requirement that the elementary attendance area school be chosen by parents, nor can placement at the elementary attendance area school be guaranteed. Beginning in 2017, 5th grade students will receive an automatic, initial assignment into their designated middle school feeder. They will also have an opportunity to apply for enrollment at other middle schools, but there will be a guaranteed assignment into the middle school based on where they attend elementary school. Available online at <http://www.sfusd.edu/en/enroll-in-sfusd-schools/frequently-asked-questions.html>. Accessed October 14, 2014.

¹³⁵ SFUSD, Research Planning and Accountability Data Center, School List and Summary – Student Enrollment. Available online at <http://tinyurl.com/lekoo89>. Accessed October 14, 2014.

¹³⁶ SFUSD Address and School Locator. Available online at <http://www.sfpublicschools.org/php/>. Accessed October 14, 2014.

¹³⁷ San Francisco Planning Department, *Transit Center District Plan and Transit Tower Final Environmental Impact Report*, Case No. 2007.0558E and 2008.0789E, May 24, 2012, p. 548.

¹³⁸ Ibid.

elementary school enrollment has increased over the last five years and SFUSD projections indicate that elementary enrollment will continue to grow. The SFUSD maintains a property and building portfolio that has a student capacity for over 90,000 students.¹³⁹ Thus, even with increasing enrollment, SFUSD facilities throughout the City are underutilized. An increase in students associated with the proposed project would not substantially change the demand for schools, nor would it result in the need for new facilities.

The Leroy F. Greene School Facilities Act of 1998, or SB 50, restricts the ability of local agencies to deny land use approvals on the basis that public school facilities are inadequate. SB 50, however, permits the levying of developer fees to address local school facility needs resulting from new development. Local jurisdictions are precluded under state law from imposing school-enrollment-related mitigation beyond the school development fees. The SFUSD collects these fees for all construction and building permits issued within the City and County of San Francisco. Developer fee revenues are utilized, in conjunction with other District funds, to support efforts to complete capital improvement projects. The School Facilities Impact Fees to be collected for residential, commercial, and retail developments for fiscal year 2013-2014 are set at \$2.24/sq. ft. for new residential construction and \$0.18/sq. ft. for retail space.¹⁴⁰ Thus, with payment of school impact fees, project impacts on SFUSD facilities and services would be considered less than significant. No mitigation is necessary, and this topic will not be discussed in the EIR.

Libraries

The San Francisco Public Library operates the Main Library at Civic Center, at 100 Larkin Street, and 27 neighborhood branches throughout San Francisco. Public libraries provide reading rooms, book lending, information services, access to technology, and library-sponsored public programs. The public libraries near the project site are the Main Library; the Eureka Valley Branch at 1 Jose Sarria Court, about 1.1 miles west of the project site; and the Western Addition Branch at 1550 Scott Street, about 1.7 miles northwest of the project site.

In 1994, San Francisco voters passed Proposition E, a Charter amendment that created the Library Preservation Fund, which provided library services and materials, and aids in the operation of library facilities. Proposition E requires the City to maintain funding for the San Francisco Public Library at a level no lower than the amount it spent during the 1992–1993 fiscal year. Voters renewed the Library Preservation Fund in November 2007 (Proposition D).

¹³⁹ SFUSD, Capital Plan 2010-2019, pp. 24-25. Available online at <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/capital-plan-final-2010-2019.pdf>. Accessed October 14, 2014.

¹⁴⁰ SFUSD, Developer Impact Fee Annual and Five Year Reports for the Fiscal Year Ending June 30, 2014, November 10, 2014, p. 2. Available online at http://www.sfusd.edu/en/assets/sfusd-staff/_site-wide/files/SFUSD_AnnualFiveYearReports_FY1314_Final.pdf. Accessed March 31, 2015.

The Branch Library Improvement Program resulted from a bond measure passed in November 2000 to provide \$106 million in funding to upgrade San Francisco's branch library system, and Proposition D, authorizing additional funding to improve the branches. These funds were used to establish the Mission Bay Branch, which opened in February 2009.

The proposed project would introduce 723 residents into the neighborhood. The Main Library and branch libraries near the project site would be able to meet the incremental increase in demand for library services generated by the proposed project. The proposed project would not require construction of new or expanded library facilities beyond those already proposed or under construction through the Branch Library Improvement Program.

Thus, the San Francisco Public Library system could accommodate increased demand from the proposed project, and no additional library facilities or the expansion of existing facilities would be required to meet unmet demand. Impacts on library services would be less than significant. No mitigation is necessary, and this topic will not be discussed in the EIR.

Cumulative Impacts

Impact C-PS-1: The proposed project, in combination with other past, present or reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to significant cumulative impacts on public services. (*Less than Significant*)

The proposed project's contribution to cumulative public services impacts was analyzed in relation to anticipated citywide population growth estimates. Reasonably foreseeable future projects in the project vicinity include a number of mixed-use projects along Van Ness Avenue, Octavia Boulevard, and Market and Franklin streets (see list of cumulative projects on pp. 40-45). Together, these projects would develop up to 2,047 residential units. Based on a conservative average of approximately 2.26 persons per household, these projects could add up to 4,625 new residents to the project area. Implementation of the proposed project in combination with reasonably foreseeable future projects would not exceed growth projections for the Market and Octavia neighborhood or San Francisco, as discussed in Initial Study Topic E.2, Population and Housing, p. 55. As a result, the implementation of reasonably foreseeable future projects would not result in any service gap in the provision of police, fire, and emergency medical services. Because there is no citywide shortfall with respect to school or library services and because reasonably foreseeable future projects would be required to pay school impact fees pursuant to SB 50, there would also be no significant cumulative effects with respect to those public services.

Thus, the proposed project, when considered together with reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to cumulative impacts on police protection services, fire protection and emergency services, or school and library services. No mitigation is necessary, and this topic will not be discussed in the EIR. Refer to Initial Study Topic E.9, Recreation, pp. 115-116, for a discussion of cumulative impacts on park services.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
12. BIOLOGICAL RESOURCES— Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact BI-1: The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations; or on federally protected wetlands through direct removal, filling, hydrological interruption, or other means. (No Impact)

The project site is located within a densely developed urban area in San Francisco. It is nearly entirely covered with buildings or impervious surfaces. Five London Plane street trees (*Platanus x acerifolia*) line the sidewalk along Market Street within the project site.

Historically, urban development has dominated this area of San Francisco, including the project site, and the native habitat has been removed. Although some parts of San Francisco support riparian habitat and several sensitive natural plant communities, none of these features are present on the project site or in its vicinity. There are no federally protected wetlands on or near the

project site, and no potential for candidate, sensitive, or special-status species to be found within the project site or in the project vicinity.

Implementation of the proposed project would not directly or indirectly affect any candidate, sensitive, or special-status species, or any riparian habitat identified in local, regional, state, or federal plans, policies, or regulations. None of the proposed project's construction-related activities would have a substantial adverse effect on federally protected wetlands through direct removal, filling, hydrological interruption, or other means. Therefore, the proposed project would have no impact under Topics 13a, 13b, and 13c.

Impact BI-2: The proposed project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (*Less than Significant*)

Nesting Birds

The *San Francisco Breeding Bird Atlas* synthesizes extensive records of avian breeding on the San Francisco Peninsula and shows a diverse assemblage of bird species breeding in San Francisco despite urbanized conditions in most areas. Native species that have been recorded in the area around the project site, defined by the atlas as "Downtown San Francisco," include house finch (*Carpodacus mexicanus*), brown-headed cowbird (*Molothrus ater*), Brewer's blackbird (*Euphagus cyanocephalus*), dark-eyed junco (*Junco hyemalis*), white-crowed sparrow (*Zonotrichia leucophrys*), song sparrow (*Melospiza melodia*), American robin (*Turdus migratorius*), common raven (*Corvus corax*), American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), and mourning dove (*Zenaida macroura*).¹⁴¹ All of these species are capable of habituating to disturbance levels typical of an urban area and are protected by Section 3008 of the California Fish and Game Code (CFGF) and the federal Migratory Bird Treaty Act (MBTA).

Existing street trees within the project site have the potential to support native nesting birds protected under Section 3008 of the CFGF or the MBTA. Removal or pruning of these trees during nesting bird season (February 1 through August 31) could result in nest destruction or injury or mortality of nestlings, which would be considered a significant impact. Compliance with the requirements of the MBTA and the CFGF would ensure that there would be no significant impact as a result of tree removal and construction disturbances. These requirements may include the following actions:

- Vegetation removal activities for the proposed project will be conducted during the non-breeding season (i.e., September through February) to avoid impact to nesting birds or

¹⁴¹ *San Francisco Breeding Bird Atlas*, June 1, 2003, accessed from <http://www.markeaton.org/sffo1/Breeding%20Ecology/San%20Francisco%20Breeding%20Bird%20Atlas.pdf>, on October 6, 2012.

preconstruction surveys will be conducted for work scheduled during the breeding season (March through August).

- Preconstruction surveys will be conducted by a qualified ornithologist, authorized by the California Department of Fish and Wildlife to conduct such activities, to determine if any birds are nesting in or in the vicinity of the vegetation to be removed. The preconstruction survey will be conducted within 15 days prior to the start of work from March through May (since there is higher potential for birds to initiate nesting during this period), and within 30 days prior to the start of work from June through August.
- If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist, in consultation with the California Department of Fish and Wildlife, will determine the extent of a construction-free buffer zone to be established around the nest until the young have fledged.

Compliance with federal and state regulations would ensure that this impact would be less than significant.

Planning Code Section 139, Standards for Bird-Safe Buildings

The Planning Commission adopted Standards for Bird-Safe Buildings on July 14, 2011.¹⁴² Required treatments under this ordinance are codified in Planning Code Section 139, Standards for Bird-Safe Buildings. The purpose of the standards is to establish requirements for new building construction and replacement façades to reduce bird mortality from circumstances that are known to pose a high risk to birds. The two circumstances regulated by Planning Code Section 139 are “location-related hazards,” where the siting of a structure creates increased risk to birds, and “feature-related hazards,” which may create increased risk to birds regardless of where the structure is located.

The project site is located in a fully developed urban area, does not provide habitat for any rare or endangered species, is not located on or in the vicinity of a native wildlife nursery site, and is not located within 300 feet of the San Francisco Bay waterfront. Therefore, the proposed high-rise tower is not subject to location-related standards of Planning Code Section 139(c)(1), incorporating the Standards for Bird-Safe Buildings.

Feature-related hazards can occur throughout the City. As set forth in Planning Code Section 139(c)(2), they include free-standing glass walls, wind barriers, skywalks, balconies, and greenhouses on rooftops that have unbroken glazed segments 24 sq. ft. and larger in size. A structure that contains any such feature-related hazard, like the proposed project tower, would be required under Planning Code Section 139 to employ Bird-Safe Glazing Treatment on 100 percent of the glazing on feature-related-hazards.

¹⁴² San Francisco Planning Department, Standards for Bird-Safe Buildings, Adopted by the Planning Commission on July 14, 2011. Available online at http://www.sf-planning.org/ftp/files/publications_reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%2011-30-11.pdf. Accessed September 13, 2012.

Compliance with Planning Code Section 139(c)(2), Standards for Bird-Safe Buildings, would ensure that the proposed project's impact on bird migration and local movement would be less than significant.

Conclusion

Compliance with applicable local, state, and federal requirements protecting biological resources would ensure that potential impacts of the proposed project related to the movement of native resident wildlife species, migratory wildlife corridors, or native wildlife nursery sites would be considered less than significant.

Impact BI-3: The proposed project would not conflict with the City's local policies or ordinances protecting biological resources, such as the tree ordinance. (*Less than Significant*)

The proposed project would include redevelopment of the project site with a 400-foot-tall residential tower and streetscape improvements. The building site component of the project site (Lots 1-5) contains no trees. Five London Plane street trees are located along Market Street within the streetscape improvement area component of the project site, west of the Muni Metro entrance. The proposed project would comply with San Francisco Planning Code Section 138.1 and Section 309, which require the planting of new street trees in the event of new building construction. As such, the proposed project would not conflict with local tree preservation ordinances. The proposed project would also not conflict with any other local policies or ordinances protecting other biological resources within the project site (including Planning Code Section 139, discussed above). Thus, the proposed project would have a less-than-significant impact with regard to conflict with local ordinances and policies protecting biological resources.

Impact BI-4: The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. (*No Impact*)

No habitat conservation plans, natural community conservation plans, or other approved conservation plans apply to the project area. Therefore, the proposed project would have no impact on any approved habitat conservation plans.

Cumulative Impacts

Impact C-BI-1: The proposed project, in combination with other past, present or reasonably foreseeable future projects in the site vicinity, would not result in a considerable contribution to significant cumulative impacts to biological resources. (*Less than Significant*)

The proposed project, combined with reasonably foreseeable future projects, would result in increased population and development in the project vicinity. The project site is currently fully

developed with buildings and impervious surfaces. On-site vegetation consists of five street trees along Market Street. Wildlife species on and in the vicinity of the project site (if any) are those that have adapted to the urban environment such as birds that nest in street trees, and are able to co-exist with people and the built environment. The vegetation that could occur on and around the project site represents an urban environment rather than a wildland condition. No nearby sites contain any special status species. Moreover, because projects must comply with federal, state, and local regulations that protect biological resources, there would be no significant project-level impacts on biological resources, and no significant cumulative impact on biological resources. For these reasons, the proposed project would not have a cumulatively considerable contribution to significant cumulative impacts on biological resources, and no mitigation measures are necessary.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
13. GEOLOGY AND SOILS—					
Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>

As shown on Map 4, Seismic Hazard Zones, San Francisco, 2012, in the Community Safety Element of the *General Plan*, the project site is not in a landslide zone.¹⁴³ Therefore, Topic 14a(iv) is not applicable to the proposed project.

The proposed project would not use septic tanks or alternative wastewater disposal systems. The proposed project would be connected to and served by the City's combined stormwater/sewer system. Therefore, Topic 14e is not applicable to the proposed project.

A *Preliminary Geotechnical Study*¹⁴⁴ was prepared for the project site; the results and recommendations are summarized below. The purpose of the *Preliminary Geotechnical Study* is to develop recommendations regarding the geotechnical aspects of project design and construction.

The project site is immediately underlain by 10 to 20 feet of fill consisting of loose to medium-dense sand that may also contain debris, such as brick and concrete fragments. The fill is underlain by native fine-grained, wind-deposited, medium-dense to dense Dune sand that reaches approximate depths of 15 to 25 feet below ground surface (bgs). Underneath this layer is a 5- to 10-foot-deep marsh deposit consisting of soft to hard silty clay with sand and loose to medium-dense clayey sand. Beneath the marsh deposit is the Colma Formation, which consists of dense to very dense sand with variable silt and stiff to hard clay content and clay with variable sand content. The Colma Formation likely extends to very stiff to hard Old Bay clay deposits and/or bedrock, which is likely present at depths of more than 200 feet bgs. Groundwater is approximately 18 feet bgs and fluctuates by about 2 feet on a seasonal basis.¹⁴⁵

The existing buildings and parking lot on the project site as well as the existing underground Muni entrance would be demolished as part of the proposed project. Excavation to a maximum depth of 50 feet bgs would be required for the three below-grade basement levels and the mat foundation on the western portion of the project site (a portion of Lot 1 and Lots 2-5). The depth of excavation for construction of a new Muni entrance on Oak Street on the easternmost portion of the project site (most of Lot 1 [All Star Café]) would extend to approximately 16 feet bgs. In total, approximately 30,000 cubic yards of demolition debris and 50,000 cubic yards of soil would be removed from the project site. Since groundwater is expected to be encountered approximately 18 to 20 feet bgs, dewatering of the excavated area would be required, with plans subject to SFPUC review.

¹⁴³ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 13. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed September 19, 2014.

¹⁴⁴ Langan Treadwell Rollo, *Preliminary Geotechnical Study, One Oak Street* (hereinafter "*Preliminary Geotechnical Study*"), January 6, 2015. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

¹⁴⁵ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, pp. 2-3.

The project site is near the underground tunnels for the BART system and Muni and the underground Van Ness Muni Metro station. According to BART drawings, the bottom of the BART structure is approximately 70 feet bgs at Market Street adjacent to the building site. The BART Zone of Influence (ZOI) extends about 50 feet into the project site.¹⁴⁶ The Muni ZOI extends about 66 feet into the project site because the Muni structures are closer to the project site.¹⁴⁷ BART has developed guidelines for construction near their subway structures (i.e., within the BART ZOI).¹⁴⁸ The design of the foundation, shoring, and building lateral/sliding resistance systems for the proposed project must consider the BART guidelines, and BART engineers will be required to review the final plans. In addition, calculations must be submitted to BART to demonstrate that proposed project would not adversely affect the BART station or tunnels under both static and seismic load conditions.

The *Preliminary Geotechnical Study* provided recommendations regarding the proposed project's construction.¹⁴⁹ These recommendations take into consideration the proximity of the BART ZOI and Muni facility, and include, but are not limited to, foundations, shoring, and underpinning. According to the *Preliminary Geotechnical Study*, the proposed building could be supported on a mat foundation varying in thickness from about 12 feet at the elevator core to about 8 feet outside of the elevator core. The bottom of the mat would extend below the BART ZOI into the Colma Formation and would not constitute additional loading on the BART and Muni structures. The easternmost portion of the project site would be excavated to a depth of 16 feet bgs and would be developed as the new Oak Street entrance to Muni. Since the subway entrance foundation pressure would be expected to be less than the pressure of the existing soil, a mat foundation may be feasible; however, some over-excavation of the marsh deposit layer (present between 15 to 30 feet bgs) may be required to expose the Colma Formation, which is better suited for supporting the proposed mat foundation. The portion of the mat foundation that requires over-excavation to reach the Colma Formation would be supported on a mat or pile-supported mat. Alternatively, soil cement columns that would transfer foundation loads into the dense sand of the Colma Formation could be used. For the portion of this mat within the BART ZOI and Muni ZOI (the portion closest to Market Street), it would likely need to be supported on drilled piers or auger cast piles that extend to a depth of 10 feet below the BART ZOI. Since the foundation pressure from the new Muni entrance would be expected to be less than the existing soil pressure, BART requirements for double casing drilled piers or auger cast piles within their ZOI would not be needed.¹⁵⁰

¹⁴⁶ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, Appendix Figure 6.

¹⁴⁷ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, Appendix Figure 7.

¹⁴⁸ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, pp. 6-7.

¹⁴⁹ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, pp. 7-9.

¹⁵⁰ Double casing provides a permanent void that would not allow load transfer onto the BART and Muni structures.

Recommendations for the shoring system are premised on the need to limit the movement of the shoring to less than ½ inch, to maintain at-rest soil conditions at 50 percent higher than active pressures, and to limit the draw-down of groundwater outside the site to less than 2 feet below the original groundwater level (as required by BART).¹⁵¹ The *Preliminary Geotechnical Study* recommends that shoring along Market Street be stiffer than elsewhere and that additional lateral support (potentially internal bracing due to BART restrictions on tie-backs within the BART ZOI) be added along the Market Street side of the excavation. The *Preliminary Geotechnical Study* also recommends that the shoring system be impervious and include an impervious wall that extends to a depth of 25 feet below the bottom of the excavation on at least one-half of the project site perimeter. A properly installed soldier-pile and lagging system on the other half of the site perimeter, especially where the excavation penetrates into and through the marsh deposit, would also be part of a shoring system to minimize loss of groundwater. And finally, the *Preliminary Geotechnical Study* recommends the use of steel piles placed in slant-drilled holes because of the groundwater/ground loss issue associated with the instability of the marsh deposit. This system is recommended as the most appropriate method for avoiding surcharging of the shoring and basement walls of the proposed building and to support adjacent building loads supported on shallower foundations during construction.

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

Fault Rupture

The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The project site is not located within an Alquist-Priolo Earthquake Fault Zone as established by the California Geological Survey (CGS), and no active or potentially active faults exist on or in the immediate vicinity of this site.¹⁵² For these reasons, the potential for surface fault rupture is low. This impact would be less than significant, and no mitigation measures are necessary.

Ground Shaking

Like the rest of the San Francisco Bay Area, the project site is subject to ground shaking in the event of an earthquake on regional fault lines. The United States Geological Survey estimates

¹⁵¹ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, pp. 8-9.

¹⁵² California Geological Survey, Table 4, Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones as of January 2010. Available online at <http://www.consrv.ca.gov/cgs/rghm/ap/Pages/affected.aspx>. Accessed September 19, 2014.

that there is a 63 percent probability of a strong earthquake (Moment magnitude¹⁵³ [Mw] 6.7 or higher) occurring in the San Francisco Bay region during the 30-year period between 2007 and 2036.¹⁵⁴ The nearest faults that could cause substantial ground shaking in the project vicinity are the San Andreas Fault, located approximately 11 miles west; the San Gregorio Fault, located approximately 17 miles west; and the Hayward Fault, located approximately 18 miles northeast.¹⁵⁵

ABAG has prepared maps that show areas of the City subject to ground shaking during an earthquake. The project site is in an area subject to “very strong” ground shaking from a major earthquake along the Peninsula segment of the San Andreas Fault and “strong” ground shaking from a major earthquake along the northern Hayward Fault.¹⁵⁶ In addition, the CGS estimates that peak ground accelerations¹⁵⁷ (expressed as the acceleration due to earth’s gravity in g) within the project area would be 0.509 g.¹⁵⁸

Although the potential for “strong” to “very strong” seismic ground shaking is present, the intensity of earthquake ground motion in the project vicinity would depend on the characteristics of the generating fault, the distance to the earthquake’s epicenter, the magnitude and duration of the earthquake, and site geologic conditions. In the event of an earthquake that exhibits “strong” to “very strong” seismic ground shaking, considerable damage could occur to existing buildings on the project site, potentially injuring building occupants and neighbors. The proposed building would be designed in accordance with the site-specific recommendations determined by a site-specific design-level geotechnical investigation and would be constructed in conformance with accepted building and engineering standards, thereby ensuring the new building would withstand seismic damage from “strong” or “very strong” ground shaking. The final plans for the proposed building would be reviewed by the Department of Building Inspection (DBI), ensuring that seismically induced ground shaking would be addressed in the building design process. DBI would also review the proposed building permit applications for compliance with the 2013 San Francisco Building Code and for implementation of recommendations in the site-

¹⁵³ An earthquake is classified by the amount of energy released, expressed as the magnitude of the earthquake. Traditionally, magnitudes have been quantified using the Richter scale. However, seismologists now use a moment magnitude (Mw) scale because it provides a more accurate measurement of the size of major and great earthquakes.

¹⁵⁴ United States Geological Survey, Earthquake Hazards Program. Available online at <http://earthquake.usgs.gov/regional/nca/ucerf/>. Accessed September 19, 2014.

¹⁵⁵ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, p. 3.

¹⁵⁶ Association of Bay Area Governments, Earthquake and Hazards Program, Hazard Maps and Information, Earthquake Shaking, Future Earthquake Shaking Scenarios, Static Shaking Maps for Future Earthquake Scenarios. Available online at <http://www.abag.ca.gov/cgi-bin/pickmapx.pl>. Accessed September 19, 2014.

¹⁵⁷ Acceleration of gravity (g) = 980 centimeters per second squared. Acceleration of 1.0 g is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

¹⁵⁸ California Geological Survey, Probabilistic Seismic Hazards Mapping Ground Motion Page. Available online at <http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamap.asp>. Accessed September 19, 2014.

specific design-level geotechnical investigation that address seismic hazards. Damage and injury from ground shaking cannot be entirely avoided; however, adherence to current commercial and regulatory practices, including building code requirements, can reduce the potential for injury and damage. For these reasons, the proposed project would not expose persons or structures to substantial adverse effects related to ground shaking. This impact would be less than significant, and no mitigation measures are necessary.

Liquefaction, Lateral Spreading, and Seismic Settlement

Strong shaking during an earthquake can cause ground failure as a result of soil liquefaction, lateral spreading, or seismic settlement. Liquefaction refers to the loss of strength of saturated soils during ground shaking. Lateral spreading is horizontal ground movement of relatively flat-lying soil deposits towards a free face such as an excavation and is generally associated with liquefaction of subsurface soils at or near the bottom of an exposed surface. Seismic densification is a phenomenon in which non-saturated, cohesionless soil is densified by earthquake vibrations, causing differential settlement.

As shown on Map 4, Seismic Hazard Zones, San Francisco, 2012, in the Community Safety Element of the *General Plan*, the project site is in a liquefaction zone.¹⁵⁹ As discussed in the *Preliminary Geotechnical Study*, the sands below the groundwater level appear to be sufficiently dense and/or have sufficient cohesion to resist liquefaction during a large earthquake on one of the nearby faults.¹⁶⁰ Based on the composition of the subsurface soils and the relatively flat topography of the project site, the *Preliminary Geotechnical Study* concludes that the potential for lateral spreading at the project site is low.¹⁶¹ The loose to medium-dense sand above the groundwater level is susceptible to seismic densification. The proposed excavation would extend below the loose to medium-dense sand, so seismic densification should not affect the proposed structure.¹⁶²

To ensure compliance with all San Francisco Building Code provisions regarding structural safety, when DBI reviews the site-specific design-level geotechnical investigation and building plans for a proposed project, it will determine necessary engineering and design features for the project to reduce potential damage to structures from liquefaction, lateral spreading, and seismic settlement. DBI could require that additional site-specific soils report(s) be prepared in conjunction with the building permit applications. Potential damage to structures from geologic hazards on a project site would be minimized through the DBI requirement for a site-specific design-level geotechnical investigation and review of the building permit application pursuant to

¹⁵⁹ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 13. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed September 19, 2014.

¹⁶⁰ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, p. 6.

¹⁶¹ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, p. 6.

¹⁶² Langan Treadwell Rollo, *Preliminary Geotechnical Study*, p. 6.

its implementation of the Building Code. Any changes incorporated into the foundation design required to meet the Building Code standards that are identified as a result of the DBI permit review process would constitute minor modifications of the project and would not require additional environmental analysis.

For these reasons, implementation of the proposed project would not expose people or structures to potential adverse effects, including the risk of loss, injury, or death, due to liquefaction, lateral spreading, or seismic settlement. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-2: The proposed project would not result in substantial soil erosion or the loss of topsoil. (*Less than Significant*)

The project site is covered with impervious surfaces. Implementation of the proposed project would require excavation to a depth of about 50 feet below the existing ground surface including space for the mat foundation. Soil movement for site preparation and excavation activities could create the potential for wind-borne and waterborne soil erosion. The project site is relatively flat; therefore, substantial erosion would not be expected as a result of these activities. Furthermore, the construction contractor would be required to implement an erosion and sediment control plan for construction activities, in accordance with Article 4.1 of the San Francisco Public Works Code, to address sediment-laden construction-site stormwater runoff. The SFPUC must review and approve the erosion and sediment control plan prior to the plan's implementation, and the SFPUC would inspect the project site periodically to ensure compliance with the plan. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-3: The proposed project would not 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. (*Less than Significant*)

As discussed under **Impact GE-1**, the potential for landslides, liquefaction, lateral spreading, and seismic densification at the project site is low, indicating that the project site is likely not located on a geologic unit or soil that is unstable. Potential damage to the proposed project from geologic hazards on the project site would be minimized through DBI's requirement that a site-specific design-level geotechnical investigation be submitted for review as part of the building permit application process. In addition, DBI would review the proposed project for compliance with the seismic safety standards of the Building Code. For these reasons, implementation of the proposed project would not cause the soil underlying the project site to become unstable and result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. This impact would be less than significant, and no mitigation measures are necessary.

The project site is near the underground BART and Muni tunnels and the underground Van Ness Muni Metro station. Construction of the proposed project would disturb the soil around these

underground structures. BART has developed guidelines for construction near their subway structures, and these guidelines cover construction activities including excavation, dewatering, shoring, and underpinning. In addition, the BART guidelines would play a role in the design of the building foundation. Compliance with these guidelines would ensure that the proposed construction activities would have little to no impact on the underground BART and Muni structures. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-4: The proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property. (*Less than Significant*)

San Francisco is within an area where less than 50 percent of the soil consists of clay with high swelling potential (i.e., expansive soils). Expansive soils shrink or swell substantially with changes in moisture content and generally contain a high percentage of clay particles. As discussed above, the soils underlying the project site consist of sand; silty clay; clayey sand; sand with variable silt and clay content; clay with variable sand content; Old Bay clay deposits; and/or bedrock. The underlying soils do not contain a high percentage of clay particles and generally have low expansion potential. The potential for substantial risks to life or property related to the presence of expansive soils would be low. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-5: The proposed project would not change substantially the topography or any unique geologic or physical features of the site. (*No Impact*)

The project site is flat and has been developed since the late 1800s. There is no topography or any unique geologic or physical features that could be changed substantially through implementation of the proposed project. There would be no impact, and no mitigation measures are necessary.

Cumulative Impacts

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

Environmental impacts related to geology and soils are generally site-specific. Nearby reasonably foreseeable future projects, which include those proposed under the *Market and Octavia Area Plan*, would be subject to the same seismic safety standards and design review procedures applicable to the proposed project. Compliance with the seismic safety standards and the design review procedures would ensure that the effects from nearby cumulative projects would be reduced to less-than-significant levels. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a cumulative impact related to geology and soils. This impact would be less than significant, and no mitigation measures are necessary.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
14. HYDROLOGY AND WATER QUALITY— Would the project:					
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	<input 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"/>	<input 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"/>	<input 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"/>	<input type="checkbox"/>

Impact HY-1: The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. (*Less than Significant*)

The proposed project's foundation system would require excavation up to a depth of approximately 50 feet bgs including space for the mat foundation. Any groundwater encountered during construction of the proposed project would be subject to requirements of the San Francisco Industrial Waste Ordinance (Ordinance No. 199-77), which requires that groundwater discharges meet specified water quality standards before they may be discharged into the combined

stormwater/sewer system. The SFPUC's Bureau of Systems Planning, Environment, and Compliance must be notified of projects necessitating dewatering and may require water analysis before discharge.

Construction activities such as excavation, earthmoving, and grading would expose soil and could result in erosion and excess sediments being carried in stormwater runoff to the combined stormwater/sewer system. In addition, stormwater runoff from temporary on-site use and storage of vehicles, fuels, wastes, and other hazardous materials could carry pollutants to the combined stormwater/sewer system if proper handling methods were not employed.

After the proposed project has been completed and occupied, domestic wastewater from the project site would flow into the City's combined stormwater/sewer system, where it is treated to standards identified in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant (Southeast Plant) prior to discharge into San Francisco Bay. During dry weather, typically May 1 to October 15, all sanitary sewage generated at the project site is treated at the Southeast Plant, which currently operates at about 80 percent of its design capacity. During wet weather, typically October 16 to April 30, the combined stormwater/sewer system collects large volumes of stormwater runoff, and other facilities in the City provide additional treatment as needed before discharging treated effluent into the Bay. When combined flows exceed the total capacity of all of the facilities, excess flows receive primary treatment and are discharged through combined sewer overflow (CSO) structures located along the Bayside waterfront. These intermittent CSO discharges occur in compliance with the current NPDES Permit.

The additional dry-weather flow associated with the proposed project could be accommodated by the wastewater treatment system's existing capacity and would not violate any water quality standards. During wet weather, any net increase in wastewater flows could cumulatively contribute to an increase in the average volume of CSO discharges into the Bay. The Regional Water Quality Control Board has designated this portion of the Bay an impaired water body under Section 303(d) of the Clean Water Act, meaning that water quality standards are not expected to be met after implementation of technology-based effluent treatment measures. Any net increase in CSO discharges could be a concern, because these discharges contain pollutants for which the Bay is impaired (i.e., these pollutants are at or would reach levels that do not meet water quality standards). However, the City is undertaking a number of measures to reduce the quantity and frequency of overflows and improve the water quality of overflows.

After the proposed project has been completed and occupied, stormwater runoff from the project site would flow 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 San Francisco Bay. In addition, the project sponsor would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) that would be reviewed, approved, and enforced by the

SFPUC. The SWPPP would specify best management practices and erosion and sedimentation control measures to prevent sedimentation from entering the City's combined stormwater/sewer system.

For the reasons discussed above, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-2: The proposed project would not 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. (*Less than Significant*)

As discussed under Initial Study Topic 14, Geology and Soils, p. 135, groundwater is approximately 18 feet bgs and would be encountered at the planned excavation depths; thus, dewatering for the proposed project would be necessary. Dewatering of excavations during construction could temporarily lower groundwater levels in the project vicinity. However, any effects of groundwater dewatering would be temporary, and, once dewatering is completed, groundwater levels would return to normal. As a result, the proposed project would not deplete groundwater supplies or substantially interfere with groundwater recharge. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-3: The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion, siltation, or flooding on or off site. (*Less than Significant*)

The project site has been developed since the late 1800s, and there are no surface water channels in the project vicinity. Since the project site and project vicinity are completely covered by impervious surfaces, the proposed project would not alter drainage patterns in a manner that would result in substantial erosion, siltation, or flooding. Runoff from the project site would drain into the City's combined stormwater/sewer system. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-4: The proposed project would not 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. (*Less than Significant*)

The project site has been developed since the late 1800s. Implementation of the proposed project would not result in an increase in impervious surfaces. The City's Stormwater Management Ordinance (Ordinance No. 83-10) requires the proposed project to maintain, reduce, or eliminate the existing volume and rate of stormwater runoff discharged from the project site. To achieve this objective, the proposed project would implement and install appropriate stormwater management systems that retain runoff on site, promote stormwater reuse, and limit (or eliminate altogether) site discharges from entering the City's combined stormwater/sewer system.

Compliance with the City's Stormwater Management Ordinance would ensure that the proposed project would not 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. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-5: The proposed project would not place housing within a 100-year flood hazard area and would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. (No Impact)

Flood risk assessment and some flood protection projects are conducted by federal agencies, including the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers. The flood management agencies and cities implement the National Flood Insurance Program (NFIP) under the jurisdiction of FEMA and its Flood Insurance Administration.

In September 2007, FEMA published Preliminary Flood Insurance Rate Maps (FIRMs) for the City and County of San Francisco.¹⁶³ FIRMs identify areas that are subject to inundation during a flood having a 1.0 percent chance of occurrence in a given year (also known as a "base flood" or "100-year flood"). FEMA refers to the floodplain that is at risk from a flood of this magnitude as a Special Flood Hazard Area (SFHA). FEMA has tentatively identified SFHAs along the City's shoreline in and along San Francisco Bay consisting of Zone A (areas subject to inundation by tidal surge) and Zone V (areas of coastal flooding subject to wave hazards).

On June 10, 2008, legislation was introduced at the San Francisco Board of Supervisors to enact a Floodplain Management Ordinance to govern new construction and substantial improvements in flood-prone areas of San Francisco and to authorize the City's participation in the NFIP upon passage of the ordinance. In July 2008, the Department of Public Works prepared interim floodplain maps to support the implementation of the Floodplain Management Ordinance.¹⁶⁴ On August 5, 2008, the San Francisco Board of Supervisors adopted legislation to enact a Floodplain Management Ordinance. On March 23, 2010, the ordinance was amended to include additional construction standards and language regarding floodplain and flood-prone area maps.¹⁶⁵ The Department of Public Works will publish flood maps for the City to replace the interim floodplain maps. Applicable City departments and agencies have begun implementing new construction and substantial improvements in areas shown on the interim floodplain map.

¹⁶³ City and County of San Francisco, General Services Agency, Risk Management Program, FEMA Preliminary Flood Insurance Rate Maps, September 2007. Available online at <http://www.sfgsa.org/index.aspx?page=828>. Accessed September 26, 2014.

¹⁶⁴ City and County of San Francisco, General Services Agency, Risk Management Program, San Francisco's Interim Floodplain Maps, July 2008. Available online at <http://sfgsa.org/index.aspx?page=828>. Accessed September 26, 2014.

¹⁶⁵ San Francisco Board of Supervisors, Ordinance No. 56-10, adopted March 23, 2010. Available online at <http://www.sfbos.org/ftp/uploadedfiles/bdsupvrs/ordinances10/o0056-10.pdf>. Accessed September 26, 2014.

The project site is not located within a flood zone designated on the City's interim floodplain map.¹⁶⁶ In addition, the project site is not within an area identified by the SFPUC as prone to flooding during storms.¹⁶⁷ For these reasons, the proposed project would not place housing within a 100-year-flood hazard area and would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. There would be no impact, and no mitigation measures are necessary.

Impact HY-6: The proposed project would not 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. (No Impact)

There are no dams or levees near the project site. As shown on Map 6, Potential Inundation Areas Due to Reservoir Failure, in the Community Safety Element of the *General Plan*, the project site would not be flooded in the event that an existing reservoir fails.¹⁶⁸ Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding as the result of the failure of a levee or dam. There would be no impact, and no mitigation measures are necessary.

Impact HY-7: The proposed project would not expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow. (No Impact)

As shown on Map 5, Tsunami Hazard Zones, San Francisco, 2012, in the Community Safety Element of the *General Plan*, the project site is not within a tsunami hazard zone.¹⁶⁹ As a result, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. There would be no impact, and no mitigation measures are necessary.

Some CEQA documents for projects in downtown San Francisco evaluate impacts related to sea level rise. The San Francisco Bay Conservation and Development Commission, which regulates development within 100 feet of the San Francisco Bay shoreline, has developed maps identifying shoreline areas that are vulnerable to sea level rise. These maps assume a forecast of 16 inches of sea level rise by 2050 and 55 inches by 2100. The project site is approximately 1.6 miles inland

¹⁶⁶ City and County of San Francisco, General Services Agency, Risk Management Program, San Francisco's Interim Floodplain Map, Northeast, Final Draft, July 2008. Available online at <http://sfgsa.org/index.aspx?page=828>. Accessed September 26, 2014.

¹⁶⁷ San Francisco Planning Department, Planning Director Bulletin No. 4: Review of Projects in Areas Prone to Flooding, April 2007. Available online at http://www.sf-planning.org/ftp/files/publications_reports/DB_04_Flood_Zones.pdf. Accessed September 26, 2014.

¹⁶⁸ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 17. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed September 26, 2014.

¹⁶⁹ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 15. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed September 26, 2014.

from the shoreline, and it would not be in the inundation zone for sea level rise of 16 inches by 2050 or 55 inches by 2100.^{170, 171} Therefore, the proposed project would not expose people or structures to impacts related to sea level rise. There would be no impact, and no mitigation measures are necessary.

Cumulative Impacts

Impact C-HY-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to hydrology and water quality. (*Less than Significant*)

Cumulative development in the project vicinity, which includes development proposed under the *Market and Octavia Area Plan*, would result in an intensification of land uses, anticipated increases in water consumption and wastewater generation. The SFPUC has accounted for population growth in its service projections. Nearby reasonably foreseeable projects would be subject to the same water conservation, stormwater management, and wastewater discharge ordinances applicable to the proposed project. Compliance with these ordinances would reduce the effects of nearby cumulative projects to less-than-significant levels. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a cumulative impact related to hydrology and water quality.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
15. 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹⁷⁰ San Francisco Bay Conservation and Development Commission, 16-Inch Sea Level Rise by Mid-Century, Central Bay. Available online at http://www.bcdc.ca.gov/planning/climate_change/maps/16/cbay.pdf. Accessed September 26, 2014.

¹⁷¹ San Francisco Bay Conservation and Development Commission, 55-Inch Sea Level Rise by End of Century, Central Bay. Available online at http://www.bcdc.ca.gov/planning/climate_change/maps/55/cbay.pdf. Accessed September 26, 2014.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 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 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 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not located within an area covered by an airport land use plan, within two miles of a public airport or a public use airport, or in the vicinity of a private airstrip. Therefore, Topics 15e and 15f are not applicable to the proposed project.

Impact HZ-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (*Less than Significant*)

The proposed project consists of the construction of residential, retail, and parking uses. Although these proposed land uses typically use small quantities of hazardous materials, including cleaners, solvents, paints, toners, and disinfectants, these materials would generally be used in quantities too small to create a significant hazard to the public or the environment. The use and storage of these typical hazardous materials would comply with San Francisco Health Code Article 21, which implements the hazardous materials requirements of the California Health and Safety Code and provides for the safe handling of hazardous materials in the City. Any person or business that handles, sells, stores, or otherwise uses hazardous materials in quantities exceeding specified threshold amounts would be required to obtain and keep a current hazardous materials certificate of registration and to implement a hazardous materials business plan submitted with the business license application.

In addition, the California Highway Patrol and the California Department of Transportation regulate the transportation of hazardous materials. Due to the small quantities of hazardous materials expected to be used and/or generated on the project site, the proposed project would not routinely transport hazardous materials. Compliance with local and State regulations would

ensure that impacts related to the routine transport, use, or disposal of hazardous materials would not create a significant hazard to the public or the environment. This impact would be less than significant, and no mitigation measures are necessary.

Impact HZ-2: The proposed project would not 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. (*Less than Significant*)

For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation and surface materials must be designated as “presumed asbestos-containing material” (PACM) unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. One of the existing buildings on the project site was constructed during the 1920s, and the other building was constructed around 1980. Demolition of the existing buildings and removal of construction debris from the project site could release asbestos into the air. All demolition and construction activities that could disturb PACM are required to comply with federal, state, and local regulations related to the removal and disposal of PACM.

For buildings constructed prior to 1978, it is highly likely that lead-based paint was used in their construction. As discussed above, one of the existing buildings on the project site was constructed during the 1920s, and the other building was constructed around 1980. Demolition of the existing buildings and removal of construction debris from the project site could release lead into the air. All demolition and construction activities that could disturb lead-based paint are required to comply with the provisions of San Francisco Building Code Section 3407, which regulates the removal and disposal of building materials that contain lead-based paint.

As discussed in the *Phase I Environmental Site Assessment at 1540 Market Street* (the July 2013 ESA),¹⁷² there is a fill cap in the Oak Street sidewalk in front of the building at 1540 Market Street. There is no known underground storage tank (UST) at this location, so the purpose of the fill cap is uncertain. The fill cap could be related to an unregistered underground fuel or heating oil system. The July 2013 ESA recommends that the purpose of the fill cap be determined and that any associated UST be removed.

As recently as 2013, large batteries were stored in the basement of one of the buildings on the project site. These batteries were part of an electrical system backup unit that is no longer used. These batteries could result in an uncontrolled release of hazardous materials. The July 2013 ESA recommends that the batteries be removed for disposal or recycling if they are no longer being used.

¹⁷² John Carver Consulting, *Phase I Environmental Site Assessment at 1500 Market Street, San Francisco, California*, July 31, 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

The abatement of hazardous materials is regulated by federal, state, and local regulations. Compliance with these regulations would ensure that implementation of the proposed project would not 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. This impact would be less than significant, and no mitigation measures are necessary.

Impact HZ-3: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. (*Less than Significant*)

There are four schools within a quarter-mile of the project site: the French-American International School and the Chinese American International School, both at 150 Oak Street (one-half block west), the Spectrum Center School at 95 Gough Street (0.1 mile southwest), and a Marin Day School campus at 1390 Market Street (0.1 mile northeast). As discussed under Impact HZ-1, the proposed project would include the use of common household items in quantities too small to create a significant hazard to the public or the environment. There would be no hazardous emissions from the proposed project, and no acutely hazardous materials, substances, or waste would be handled at the project site. This impact would be less than significant, and no mitigation measures are necessary.

Impact HZ-4: The project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but would not result in a significant hazard to the public or the environment. (*Less than Significant*)

The existing building at 1540 Market Street is listed on the HAZNET database, which indicates that one or more businesses at this location disposed of hazardous waste in accordance with protocols established by the United States Environmental Protection Agency. One business disposed of photochemical and/or photo processing waste, and another business disposed of asbestos-containing waste that was generated during abatement of asbestos insulation.

As discussed in the July 2013 ESA, there is conflicting information regarding the existence of a UST at an unofficial address (15 Oak Street) associated with the project site. Although the project site is listed on a local UST database, other records indicate that one or more USTs were properly removed from the project site. The July 2013 ESA recommends that further investigation be conducted and, depending on the findings, that the following actions be taken: (1) if there are USTs at this location that are no longer being used, they should be removed, or (2) if the UST listing is the result of a clerical error, the error should be corrected.

The Planning Department has determined that the project site is known or suspected to contain contaminated soil and/or groundwater (i.e., it is within a Maher Area).¹⁷³ For this reason, the proposed project is required to comply with the provisions of Health Code Article 22A (the Maher Ordinance), which regulates the remediation of hazardous materials contained in soil and/or groundwater.

The abatement of hazardous materials is regulated by federal, state, and local regulations. Compliance with these regulations would ensure that implementation of the proposed project would not result in a significant hazard to the public or the environment. This impact would be less than significant, and no mitigation measures are necessary.

Impact HZ-5: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and would not expose people or structures to a significant risk of loss, injury or death involving fires. (*Less than Significant*)

In San Francisco, fire safety is ensured through the provisions of the San Francisco Building Code and the San Francisco Fire Code. During the review of the building permit application, the Department of Building Inspection and the Fire Department will review the project plans for compliance with all regulations related to fire safety, which may include the development of an emergency procedure manual or an exit drill plan for the residents of the proposed project. 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.

Current emergency vehicle operations allow for the contraflow use of the one-way, westbound Oak Street (between Van Ness Avenue and Franklin Street) in order to gain access to Van Ness Avenue. With implementation of the proposed Oak Plaza, vehicle circulation on Oak Street would be changed from one-way westbound between Franklin Street and Van Ness Avenue, to two-way operations between Franklin Street and the proposed Oak Plaza. Emergency vehicles, however, would continue to have access through Oak Plaza. Rolled curb cuts at the east and west ends of the plaza would allow emergency vehicles to cross the plaza when necessary. In addition, the Van Ness Avenue stop bar for southbound vehicular traffic would be relocated to align with the northern edge of the fire lane so that emergency vehicles could turn onto Van Ness Avenue unimpeded. The proposed Oak Plaza and wind canopy would be designed to provide a 26-foot-wide emergency access zone, which includes a 14-foot-wide fire lane and 12 feet of additional clearance for emergency access to and from Van Ness Avenue. These dimensions meet the

¹⁷³San Francisco Planning Department, Expanded Maher Area Map, September 2013. Available online at http://www.sf-planning.org/ftp/files/publications_reports/library_of_cartography/Maher%20Map.pdf. Accessed October 9, 2014.

Better Streets Plan requirements for emergency vehicle access and would allow unimpeded emergency vehicle access from Oak Street onto Van Ness Avenue for emergency vehicles (ambulance, 35-foot fire truck, 57-foot ladder truck). The canopy would be at least 40 feet above the plaza, allowing appropriate vertical clearance for all emergency vehicles. Thus, emergency vehicles would be accommodated by the proposed Oak Plaza. In addition, and as part of the San Francisco Fire Department’s building permit review process, drawings for the proposed emergency access zone and wind screen canopy features in the proposed plaza would be reviewed by the Fire Department to ensure that emergency access to Van Ness Avenue and to the existing and proposed buildings in the immediate area would meet SFFD requirements.

This impact would be less than significant, and no mitigation measures are necessary

Cumulative Impacts

Impact C-HZ-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not contribute considerably to a significant cumulative impact related to hazards and hazardous materials. (*Less than Significant*)

Environmental impacts related to hazards and hazardous materials are generally site-specific. Nearby cumulative projects, which include those proposed under the *Market and Octavia Area Plan*, would be subject to the same fire safety and hazardous materials cleanup ordinances applicable to the proposed project. Compliance with these ordinances would ensure that the effects of nearby cumulative projects would be reduced to less-than-significant levels. For these reasons, the proposed project would not combine with past, present and reasonably foreseeable future projects in the project vicinity to create a cumulative impact related to hazards and hazardous materials.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
16. MINERAL AND ENERGY RESOURCES— Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact ME-1: The proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. (No Impact)

All land in the City and County of San Francisco, including the project site, is an urbanized area and is designated as Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology (CDMG) under the Surface Mining and Reclamation Act of 1975.¹⁷⁴ This designation signifies that there is inadequate information available for assignment to any other MRZ, and the project site is not a designated area of significant mineral deposits. Since the project site does not contain any known mineral resources, the proposed project would not adversely affect mineral resources, either directly or indirectly. Moreover, the proposed project would not 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. The implementation of the proposed project would not result in the loss of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, there would be no impact on mineral resources, and no mitigation is necessary.

Impact ME-2: The proposed project would not encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner. (Less than Significant)

Construction of the proposed project would require electricity to operate construction equipment such as hand tools and lighting. Construction vehicles and equipment would primarily use diesel fuel, and construction workers would use gasoline, diesel, and electricity to travel to the site. Energy and fuel use during construction would not be expected to be wasteful, as such use would unnecessarily add to construction costs.

The *San Francisco General Plan* contains objectives and policies aimed at reducing energy consumption that would be implemented for the proposed project, including the requirement for the proposed project to meet basic standards established in the Green Building Ordinance with respect to energy and water use.

Because implementation of the proposed project would meet or exceed current state and local codes concerning energy consumption requirements, and because the proposed project would meet or exceed the standards in the City's Green Building Ordinance (the project sponsor intends to seek Build It Green certification), there would be less-than-significant impacts on energy resources, and no mitigation is necessary.

¹⁷⁴ California Division of Mines and Geology (CDMG), Open File Report 96 03 and Special Report 146 Parts I and II, 1986. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

Cumulative Impacts

Impact C-ME-1: The proposed project, in combination with other past, present or reasonably foreseeable projects in the site vicinity, would not result in a cumulatively considerable contribution to significant impacts related to energy and mineral resources. (Less than Significant)

As discussed in Impact ME-1, above, no known minerals exist at the project site, and therefore the proposed project would not contribute to cumulative impacts on mineral resources.

In December 2002, the City adopted the *Electricity Resource Plan*, which includes implementation steps for strategies to maximize energy efficiency, develop renewable power, and ensure reliable power. In response to the Board of Supervisors’ guidance in its 2009 Ordinance 94-09, San Francisco Public Utilities Commission staff have developed an updated *Electricity Resource Plan*.¹⁷⁵ This update identifies proposed recommendations to work towards achieving the broad policy goals laid out in the 2002 Plan.

These efforts, together with conservation, will be part of the statewide effort to achieve energy self-sufficiency. The project-generated demand for electricity would be negligible in the context of overall demand within San Francisco and the state, and would not in and of itself require a major expansion of power facilities. Therefore, implementation of the proposed project, in combination with past, present or reasonably foreseeable projects in the project site vicinity, would not result in any cumulatively considerable contribution to a significant cumulative impact on mineral and energy resources, either directly or indirectly. No mitigation measures are necessary.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
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17. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

—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"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

¹⁷⁵ San Francisco Public Utilities Commission, *San Francisco’s Updated Electricity Resource Plan*, Draft, March 2011, Executive Summary, pp. 1-20. Available online at <http://sfwater.org/index.aspx?page=700>. Accessed September 19, 2014.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, 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"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact AF-1: The proposed project would not convert farmland or forest land to non-farm or non-forest use, nor would it conflict with existing zoning for agricultural uses or forest land. (No Impact)

The project site is located within a developed and wholly urbanized area of San Francisco. The California Department of Conservation’s Farmland Mapping and Monitoring Program identifies the site and all of San Francisco as “Urban and Built-up Land.”¹⁷⁶ There are no farmlands or forest land identified in San Francisco; thus, the project site has no agriculture and forest resources. Because the project site does not include agricultural uses and is not zoned for such uses, the proposed project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. The proposed project would not conflict with existing zoning for agricultural uses or a Williamson Act contract. Also, the proposed project would not conflict with existing zoning for forest land or timberland (as defined by Public Resources Code Sections 12220(g) and 4526, respectively) or result in the rezoning of forest land or timberland. Further, the proposed project would not involve other changes to the existing environment that could result in conversion of farmland or forest use to non-forest use. Therefore, there would no impacts with respect to agricultural and forest resources, and no mitigation is necessary.

¹⁷⁶ California Department of Conservation, Farmland Mapping and Monitoring Program, San Francisco Bay Area Important Farmland 2010. Available at ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/regional/2010/bay_area_fmmp2010.pdf. Accessed on December 26, 2014.

Cumulative Impacts

Impact C-AF-1: The proposed project, in combination with other past, present and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to a significant cumulative impact on agricultural resources or forest land or timberland. (No Impact)

As discussed above, there are no existing agricultural or forest uses on the project site or in the project vicinity, nor is there any zoning related to agricultural or forest uses, nor are any such uses anticipated. The proposed project would not result in land use conflicts related to agricultural and forest-related land uses. Therefore, there would be no cumulatively considerable contribution to a significant cumulative impact with respect to agricultural or forest resources, and no mitigation is necessary.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
18. MANDATORY FINDINGS OF SIGNIFICANCE— Would the project:					
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that would be individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The EIR will address potential impacts, including cumulative impacts, related to the environmental topics of Transportation and Circulation, and Wind and Shadow. These topics, along with Compatibility with Existing Zoning and Plans and Policies, will be evaluated in an EIR prepared for the proposed project.

F. MITIGATION MEASURES AND IMPROVEMENT MEASURES

The project sponsor has agreed to implement the following mitigation measures which would reduce potentially significant impacts related to archaeological resources, paleontological resources, and hazardous building materials to a less-than-significant level.

Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery, and Reporting.

Based on a reasonable presumption that pre-historic and historic archaeological resources may be present within the project site, the following measures shall be undertaken, consistent with the MO Plan EIR mitigation measures to avoid any potentially significant adverse effect from the proposed project on buried cultural resources.

- a. The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment, and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer.

Predicting the location of potentially significant subsurface archaeological resources is never completely accurate; therefore, the possibility remains that important resources may be encountered in locations that have not been tested, and may become apparent during the course of construction. The Archaeological consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure, or if archaeological resources are encountered during construction.

- b. Due to the potential for intact cultural resources within and beneath the fill layer underlying the existing building and parking lot on the property, the archaeological consultant shall undertake an archaeological testing program prior to and coinciding with mass excavation on the site. The archaeological testing shall include the following measures:
 1. A systematic core-sampling program shall be undertaken prior to excavation activity on the site to address uncertainties about prehistoric-period archaeological sensitivity of the geological strata that underlie the project site. A hydraulic coring device, or "Geoprobe," utilizing a dual-wall system to improve recovery will be used to obtain six core samples extending to the maximum depth of disturbance across the footprint of the area that will be impacted by mass excavation or pile driving (if a pile foundation system is required).
 2. Testing for historic-period resources includes mechanical excavation of test trenches and areal excavations in two specific areas of the project site identified in the ARD/TP that have the most potential to contain intact archaeological deposits and features that would be disturbed by excavation and construction activities.
- c. If potentially significant cultural resources are encountered during the testing program, the archaeological consultant shall determine if redirection of construction excavation is needed, and shall evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with EP and the project sponsor. In consultation with EP, the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, including data recovery, as needed. If data recovery is the preferred mitigation

alternative, the consultant shall develop an Archaeological Data Recovery Plan (ADRP) for submittal to EP for review and approval. Once approved the consultant shall implement the measures in the plan to recover any potentially significant data. The ADRP will reference the prehistoric and historic contexts and research design in the ARD/TP and will provide a detailed data recovery plan. The data recovery plan will include the following procedures:

1. Determination of the structure and stratigraphic integrity, the date of the deposition, and the range and quantity of associated artifacts, if possible;
 2. An appropriate portion of each feature will be excavated manually to assess its content and integrity;
 3. A detailed profile of the feature will be produced, and each layer investigated for contents and temporal affiliation;
 4. The field crew will produce plans to-scale, take digital photographs, and map all features and deposits using WSA's Trimble Geo-XT GPS Data Logger, which provides sub-meter accuracy;
 5. Diagnostic artifacts will be removed, bagged, and catalogued; and
 6. Soil color and texture samples will be recovered and soil profiles will be drawn, if applicable.
- d. Based on the results of the archaeological testing program, if EP, in consultation with the project archaeologist, determines that an archaeological monitoring program shall be implemented, the project archaeologist shall prepare an Archaeological Monitoring Plan (AMP) that will provide guidance to the archaeological monitor and the construction manager as to the procedures that are to be followed in the event that previously unknown or unanticipated buried cultural resources are encountered during excavation. In general, the AMP will include the following guidelines and recommendations:
1. Construction work should be stopped until the project archaeologist has had an opportunity to evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with the construction manager, the archaeological monitor, and EP. At that time, it will also be determined if redirection of construction excavation is needed;
 2. Upon observing what is reasonably believed to be a cultural deposit or feature, the archaeological monitor shall immediately request the equipment operator to stop excavation and shall notify the construction manager, who shall direct that all construction activity stop within 25 ft. of the resource in order to permit an examination of the find. The archaeological monitor is not permitted to direct other movements of earth-moving machinery.
 3. If the archaeological monitor determines that the cultural object or feature is potentially significant, the archaeological monitor must then immediately notify the project archaeological consultant who shall initiate appropriate consultations with the construction manager and EP to determine the appropriate avoidance or mitigation measures. All information needed, including soil color or type, elevation, location, photographs, sketch maps, etc., shall be gathered as quickly as conditions permit to allow a final determination of the significance of the find.
 4. EP and the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, and may include data recovery. If potentially significant cultural resources are identified during construction monitoring and it is decided that

data recovery is the preferred mitigation alternative, the project archaeological consultant shall develop an ADRP per the criteria outlined above in measure 3, for submittal to EP for review and approval, and shall implement the measures in the approved plan to recover any potentially significant data found during construction.

- e. In the unlikely event that human remains are encountered during implementation of archaeological testing, the remains must be treated in accordance with the requirements of CEQA Section 15064.5 and Section 7050.5(b) of the California Health and Safety Code, which states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

1. The county coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the NAHC within 24 hours, who then assigns a Native American Most Likely Descendant (MLD) to the Project. The MLD, or in lieu of the MLD, the NAHC, has responsibility to provide guidance as to the ultimate disposition of any Native American remains.
 2. In the event the remains are determined to be non-Native American, under CEQA Section 15064.5 (a) (4), the City and County of San Francisco, as lead agency, may determine that the remains constitute an historical resource. As such, the remains may have the potential to provide essential information on Gold Rush-era and later 19th-century diet, disease, mortality, and internment practices, among other important research topics.
- f. Upon completion of archaeological testing and monitoring, a draft Final Archaeological Resources Report (FARR) documenting the results of implementing the ARD/TP shall be prepared by the project archaeologist and submitted to EP for review. The content of the FARR shall be consistent with the City of San Francisco Guidelines. A final draft of the FARR shall be produced in response to comments provided by EP.
 - g. Exposure of sub-surface archaeological deposits increases the risks of looting and destruction of valuable and spatially-sensitive archaeological information.¹⁷⁷ Consequently, prior to site preparation and excavation, a security fence shall be erected around the project parcel. Once surface hardscapes have been removed and archaeological testing begins, a security guard shall be employed to provide security during those periods when the site is otherwise unoccupied. It shall be the security guard's responsibility to

¹⁷⁷ William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*.

insure that no unauthorized excavations occur and no cultural material is removed from the site.

- h. Upon the completion of the final report on archaeological investigations, the collection will be transferred to an appropriate facility for permanent curation where it will be available for study by researchers in the future. This facility will meet the standards set forth in *Curation of Federally Owned and Administered Archaeological Collections*. In addition to the artifacts, soil samples, etc., the facility will also receive copies of field notes and drawings, special studies, and the final report. The designated repository for the San Francisco Bay Area is the Archaeological Collections Facility at Sonoma State University.

Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program

The project sponsor shall retain the services of a qualified paleontological consultant having expertise in California paleontology to design and implement a Paleontological Resources Monitoring and Mitigation Program. The PRMMP shall include a description of when and where construction monitoring would be required; emergency discovery procedures; sampling and data recovery procedures; procedure for the preparation, identification, analysis, and curation of fossil specimens and data recovered; preconstruction coordination procedures; and procedures for reporting the results of the monitoring program.

The PRMMP shall be consistent with the Society for Vertebrate Paleontology Standard Guidelines for the mitigation of construction-related adverse impacts to paleontological resources and the requirements of the designated repository for any fossils collected. During construction, earth-moving activities shall be monitored by a qualified paleontological consultant having expertise in California paleontology in the areas where these activities have the potential to disturb previously undisturbed native sediment or sedimentary rocks. Monitoring need not be conducted in areas where the ground has been previously disturbed, in areas of artificial fill, in areas underlain by nonsedimentary rocks, or in areas where exposed sediment would be buried, but otherwise undisturbed.

The consultant's work shall be conducted in accordance with this measure and at the direction of the City's ERO. Plans and reports prepared by the consultant 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. Paleontological monitoring and/or data recovery programs required by this measure could suspend construction of the proposed project for as short a duration as reasonably possible and in no event for more than a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce potential effects on a significant paleontological resource as previously defined to a less-than-significant level.

Mitigation Measure M-NO-2: General Construction Noise Control Measures

To ensure that project noise from construction activities is minimized to the maximum extent feasible, the project sponsor and/or its construction contractors shall undertake the following:

- The project sponsor shall require the general contractor to ensure that equipment and trucks used for project construction utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).
- The project sponsor shall require the general contractor to locate stationary noise sources (such as compressors) as far from adjacent or nearby sensitive receptors as possible, to

muffle such noise sources, and to construct barriers around such sources and/or the construction site, which could reduce construction noise by as much as 5 dBA. To further reduce noise, the contractor shall locate stationary equipment in pit areas or excavated areas, if feasible.

- The project sponsor shall require the general contractor to use impact tools (e.g., jack hammers, pavement breakers, and rock drills) that are hydraulically- or electrically-powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used, along with external noise jackets on the tools, which could reduce noise levels by as much as 10 dBA.
- The project sponsor shall include noise control requirements in specifications provided to construction contractors. Such requirements could include, but not be limited to, performing all work in a manner that minimizes noise to the extent feasible; use of equipment with effective mufflers; undertaking the most noisy activities during times of least disturbance to surrounding residents and occupants, as feasible; and selecting haul routes that avoid residential buildings inasmuch as such routes are otherwise feasible.
- Prior to the issuance of building permits, along with the submission of construction documents, the project sponsor shall submit to the Planning Department and Department of Building Inspection (DBI) a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include (1) a procedure and phone numbers for notifying DBI, the Department of Public Health, and the Police Department (during regular construction hours and off-hours); (2) a sign posted on-site describing noise complaint procedures and a complaint hotline number that shall be answered at all times during construction; (3) designation of an on-site construction complaint and enforcement manager for the project; and (4) notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of extreme noise-generating activities (defined as activities generating noise levels of 90 dBA or greater) about the estimated duration of the activity.

Mitigation Measure M-NO-3: Vibration Attenuation

Prior to submittal of the building permit application, the project sponsor shall hire a qualified acoustical consultant to prepare a detailed site-specific vibration analysis to determine if future sensitive uses will be exposed to excessive vibration levels from Muni rail operations and to evaluate the extent of vibration-reducing design features that may be required to minimize the potential for vibration annoyance to future residents. The vibration analysis shall be submitted to the Department of Building Inspection for review and approval prior to issuance of the building permit, to ensure that necessary acoustical features are included in the final project design.

For the reasons discussed above, the proposed project would not expose the project residents to interior noise levels that are in excess of standards established in the *General Plan* and Title 24, and with implementation of Mitigation Measure M-NO-3 would not expose project residents to excessive vibration. Therefore, this impact would be less than significant. This topic will not be discussed in the EIR.

Mitigation Measure M-AQ-2: Construction Air Quality

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 manufacturer 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 M-AQ-2, below.

Table M-AQ-2: 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*
* Alternative fuels are not a VDECS		

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.

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 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.

M-AQ-4: Best Available Control Technology for Diesel Generators

The project sponsor shall ensure that the backup diesel generator meet or exceed one of the following emission standards for particulate matter: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California Air Resources Board (ARB) Level 3 Verified Diesel Emissions Control Strategy (VDECS). A non-verified diesel emission control strategy may be used if the filter has the same particulate matter reduction as the identical ARB verified model and if the Bay Area Air Quality Management District (BAAQMD) approves of its use. The project sponsor shall submit documentation of compliance with the BAAQMD New Source Review permitting process (Regulation 2, Rule 2, and Regulation 2, Rule 5) and the emission standard requirement of this mitigation measure to the Planning Department for review and approval prior to issuance of a permit for a backup diesel generator from any City agency.

G. PUBLIC NOTICE AND COMMENT

Concurrently with this Initial Study, the San Francisco Planning Department has issued a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the One Oak Street Project. Together, the NOP and this Initial Study are called the NOP/Initial Study. The NOP/Initial Study (or a Notice of Availability of a NOP/Initial Study) is sent to owners of properties within 300 feet of the project site, neighborhood organizations, and other interested parties. Publication of the NOP/Initial Study initiates a 30-day public review and comment period. Comments received on the NOP/Initial Study will be considered in preparation of the EIR analysis.

H. DETERMINATION

On the basis of this Initial Study:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

DATE _____

Sarah B. Jones
Environmental Review Officer
for
John Rahaim
Director of Planning

I. INITIAL STUDY PREPARERS

Initial Study Authors

Planning Department, City and County of San Francisco
Environmental Planning Division

1650 Mission Street, Suite 400
San Francisco, CA 94103

Environmental Review Officer:	Sarah B. Jones
Environmental Coordinator:	Michael Jacinto
Environmental Supervisor:	Rick Cooper

EIR Consultants

Turnstone Consulting, a Division of SWCA
330 Townsend Street, Suite 216
San Francisco, CA 94107

Principal in Charge:	Nancy Cunningham Clark
Project Manager:	Michael Kometani Barbara W. Sahn. Peter Mye Elizabeth Haines

Kelley & VerPlanck Historical Resources Consulting (Historic Resource Evaluation)
2912 Diamond Street, #330
San Francisco, CA 94131

Architectural Historian:	Tim Kelley
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William Self Associates Inc. (Preliminary Archaeological Sensitivity Study)
P.O. Box 2192
61d Avenida de Orinda
Orinda, CA 94564

Preparers:	Aimee Arrigoni Angela Cook
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Brown and Buntin Associates, Inc. (Noise)
406 W. School Avenue
Visalia CA 93291

Langan Treadwell Rollo (Preliminary Geotechnical Study)
555 Montgomery Street, Suite 1300
San Francisco, CA 94111

Senior Project Manager:	Cary E. Ronan, GE
Vice President:	Hadi J. Yap, PhD, GE
Principal:	Cabe C. Silverhame

John Carver Consulting (Phase I Environmental Site Assessment)
670 Vernon Street
Oakland, CA 94610
Civil Engineer: John Carver

Project Sponsors

Build Inc.
315 Linden Street
San Francisco, CA 94102
Principal: Michael Yarne
Vice President, Development: Katie O'Brien
Assistant Project Manager: Carlos Vasquez

Project Sponsor Attorneys

Gibson, Dunn & Crutcher
555 Mission Street, Suite 3000
San Francisco, CA 94105
Mary G. Murphy, Esq.

Project Sponsor Architects

SCB Architects
255 California Street, 3rd Floor
San Francisco, CA 94111

Snøhetta
San Francisco Studio
236 8th Street, Suite 100
San Francisco, CA 94103

PLACE
POSTAGE
HERE

Michael Jacinto
San Francisco Planning Department
Environmental Planning Division
1650 Mission Street, Suite 400
San Francisco, CA 94103

PLEASE CUT ALONG DOTTED LINES

PLEASE RETURN THIS POSTCARD TO REQUEST A COPY OF
THE FINAL ENVIRONMENTAL IMPACT REPORT

(NOTE THAT THE DRAFT EIR PLUS THE RESPONSES TO COMMENTS
DOCUMENT CONSTITUTE THE FINAL EIR)

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

Planning Department Case No. 2009.0159E

One Oak Street Project

Check one box: Please send me a copy of the Final EIR on CD-ROM.
 Please send me a paper copy of the Final EIR.

Signed: _____

Name: _____

Street: _____

City: _____ State: _____ Zip: _____
