



SAN FRANCISCO PLANNING DEPARTMENT

Final Amended Mitigated Negative Declaration

Date: November 21, 2012; amended on January 3, 2013
(Amendments to the PMND are shown as deletions in ~~striketrough~~; additions in double underline.)

Case No.: **2011.0312E**

Project Title: **1321 Mission Street (aka 104 – 9th Street)**

Zoning: C-3-S (Downtown Support)
120-F Height and Bulk District

Block/Lot: 3509/0431

Lot Size: 9,208 square feet

Project Sponsor: Patrick Kennedy, Panoramic Interests
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PROJECT DESCRIPTION:

The project site is a 9,208 square foot (sf) lot located on the southwest corner of Mission and 9th Streets in the South of Market neighborhood. The property contains a 12,860 sf one-story commercial structure with a partial basement built circa 1926, most recently occupied by a furniture store. The project proposes to demolish the existing structure and construct a new 120 foot tall, 11 story mixed-use building with approximately 98,840 gross square feet (gsf), including 3,359 gsf of ground floor commercial space, 77,422 gsf of residential space, 6,128 gsf of common indoor space, 2,185 gsf of bicycle parking, 696 gsf of car share parking, 7,373 gsf of mechanical space, and 4,100 gsf of common outdoor space. Above the ground floor, there would be 10 stories of residential uses with a total of 160 dwelling units. There would be 120 studios and 40 suites, which would be two or three bedroom units. All residential floors would each contain 12 studio units and 4 suites. The project would provide one car-share parking space in a small garage on the ground floor, and basement space for accommodating approximately 240 bicycle parking spaces. There would be no other off-street parking or freight loading spaces.

FINDING:

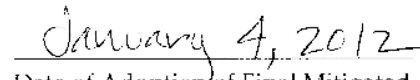
This project could not have a significant effect on the environment. This finding is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15064 (Determining Significant Effect), 15065 (Mandatory Findings of Significance), and 15070 (Decision to prepare a Negative Declaration), and the following reasons as documented in the Initial Evaluation (Initial Study) for the project, which is attached. Mitigation measures are included in this project to avoid potentially significant effects. See pages 162 through 171.

Mitigated Negative Declaration
January, 3 2013

Case No. 2011.0312E
1321 Mission Street (aka 104 – 9th Street)

In the independent judgment of the Planning Department, there is no substantial evidence that the project could have a significant effect on the environment.


BILL WYCKO
Environmental Review Officer


Date of Adoption of Final Mitigated
Negative Declaration

cc: Patrick Kennedy, Panoramic Interests
Will Mollard
Elizabeth Watty, Current Planning
Supervisor Jane Kim, District 6
Master Decision File
Distribution List

INITIAL STUDY TABLE OF CONTENTS

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Planning Department Case No. 2011.0312E

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LIST OF ACRONYMS AND ABBREVIATIONS

ABAG	Association of Bay Area Governments
ADRP	archaeological data recovery plan
AMP	archaeological monitoring program
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BMP	Best Management Practices
C-3-G	Downtown General Commercial
C-3-S	Downtown Support
CARB	California Air Resources Board
CDMG	California Division of Mines and Geology
CEQA	California Environmental Quality Act
City	City and County of San Francisco
CRHR	California Register of Historical Resources
dB	decibel
dBA	A-weighted decibel
DBI	Department of Building Inspection
DPH SAM	San Francisco Department of Public Health, Environmental Health Section-Site Assessment Mitigation
DPW	Department of Public Works
DTSC	Department of Toxic Substances and Control
<u>EDU</u>	<u>efficiency dwelling unit</u>
ERO	Environmental Review Officer
ESA	Environmental Site Assessment
FAR	floor area ratio
FARR	Final Archaeological Resources Report
GHG	greenhouse gases
HRER	Historic Resource Evaluation Report
ISA	International Society of Arboriculture
LOD	Letter of Determination
LOS	Level of Service
LUST	leaking underground storage tanks
MBTA	Migratory Bird Treaty Act
MRZ	Mineral Resource Zone
Muni	San Francisco Municipal Railway
NAHC	Native American Heritage Commission
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NWIC	Northwest Information Center
OPR	Office of Planning and Research

PCB	polychlorinated biphenyls
ppv	peak particle velocity
QSHP	Qualified Student Housing Project
RHND	Regional Housing Needs Determination
RWQCB	Regional Water Quality Control Board
SFCD	San Francisco City Datum
SFCTA	San Francisco County Transportation Authority
SFFD	San Francisco Fire Department
SFGBO	San Francisco Green Building Ordinance
SFPD	San Francisco Police Department
SFPUC	San Francisco Public Utilities Commission
SFUSD	San Francisco Unified School District
TEP	Transit Effectiveness Project
USEPA	US Environmental Protection Agency
UWMP	Urban Water Management Plan

Initial Study
1321 Mission Street (AKA 104 – 9th Street)
Planning Department Case No. 2011.0312E

A. PROJECT DESCRIPTION

Project Location

The project site, 1321 Mission Street is on an approximately 9,208-square foot (sf) lot, Lot 043 of Assessor's Block 3509, spanning from the southwest corner of Mission and 9th Streets to the northwest corner of Mission and Washburn Streets. It is located in the South of Market neighborhood within the Downtown Area Plan and the Downtown Support (C-3-S) zoning district and a 120-F Height and Bulk District (**Figure 1, Project Site Location** and **Figure 2, Existing Project Site View**). The site is on the block bounded by Washburn Street to the west, Mission Street to the north, 9th Street to the east, and Howard Street to the south. Access to the site could occur from any of its three frontages, on Washburn Street, Mission Street, and 9th Street.

The site is currently improved with a 12,860 sf one-story building with a partial basement. The existing building covers the entire area of the lot and was built circa 1926. The building had been vacant prior to acquisition for development by the project sponsor, and is currently occupied by a furniture store.

Project Characteristics

Proposed Land Uses

The proposed project would demolish the existing building on the project site and in its place construct a new residential building with commercial space on the ground floor. The project sponsor is seeking approval of 160 dwelling units, of which 120 of the project's units would be "efficiency dwelling units with reduced square footage" as defined in Planning Code Section 318, this building At a minimum, 80 of the project's units would be operated as a Student Housing project, per the recently approved Student Housing legislation¹ and intends to have with one or more educational institution leasing blocks of residential units to house their students. The remainder of the units would be approved for non-student residential use, but the project sponsor would have the flexibility to change the use to Student Housing at any time prior to issuance of the first Certificate of Occupancy.

¹ Ordinance 188-12, File number 111374, amending the *Planning Code* to create a new definition of Student Housing, was approved by the Board of Supervisors on September 4, 2012 and signed by the Mayor on September 11, 2012.

~~These residential uses would occupy floors two through 11, which would be dedicated to Student Housing.~~ Floor one (ground level) would include a residential lobby, common spaces serving the residential uses,² and neighborhood serving commercial space. The building basement would consist of various mechanical/storage spaces, two art rooms, and a secure bicycle parking area for the use of building residents.

The proposed building would be approximately 120 feet tall and would include a basement and 11-stories above grade as portrayed in **Figure 3, Project Elevations**. The total building area would be approximately 98,840 gross square feet (gsf), including 3,359 gsf of commercial space, 77,422 gsf of residential space, and other spaces as outlined in **Table 1, Proposed Land Uses**, below. Under the *Planning Code*, which provides for certain exemptions to floor area, the building's adjusted gross floor area would be 80,107 gsf.

Table 1
Proposed Land Uses

Proposed Land Use	Space (gsf)
Residential	77,422
Commercial	3,359
Common Indoor Space	6,128
Bicycle Parking	2,185
Car Share Parking	696
Mechanical Space	7,373
Second Floor Courtyard	1,070
Rooftop Common Outdoor Space	4,100

Residential Units

The building's residential entries would be on Mission Street and Washburn Street, and the garage entrance would be accessed from Washburn Street. The ground floor residential area would consist of approximately 2,568 gsf of space for the residential lobby and circulation, 895 gsf of common indoor areas for residents, 696 gsf for car-share parking, and additional space used for building operations (**Figure 4, Ground Level Floor Plan**).³

² Common spaces on the ground floor include a study room and lounge.

³ The study rooms would be common space for tenants.

Above the ground floor, there would be 10 stories of residential uses with a total of 160 dwelling units. As shown in **Table 2, Residential Units by Type**, below, there would be 120 studio units and 40 suites. Suites are proposed with a flexible floor plan that can be used as two- or three-bedroom units.⁴ All residential floors would each contain 12 studio units and four suites as shown in **Figure 5, Typical Residential Level Floor Plan**.

Table 2
Residential Units by Type

Type of Unit	Average Size	Number of Units
Studio	291 sf	120
Suite (2 or 3 bedroom units)	646 sf	40
TOTAL		160

As noted above, the project sponsor is seeking approval of 160 dwelling units, of which a minimum of 80 units (five floors) of this building as a would be Student Housing project, and the remaining 80 units (five floors) would be non-student residential use. The goal of the Student Housing legislation is to encourage the production of new student housing, and protect the existing housing stock. The legislation amends a number of different sections of the *Planning Code* and adds a new Code Section, 102.36, to define Student Housing. The portion of the project that is As-Student Housing, the project is required to be controlled by one or more accredited post-secondary Educational Institutions for housing students, which could take the form of a master lease or other contractual agreement with the project sponsor with at least a five-year term.

~~As a result of its status as a~~ The portion of the project that is Student Housing project, ~~the building would~~ may be exempt from Floor Area Ratio (FAR) limitations (Code Section 124k) with a conditional use, and is not required to provide Inclusionary Housing (below market rate) units (Code Section 415.3) if the educational institution(s) leasing the ~~building units~~ meets certain requirements, including serving a percentage of students receiving need-based financial assistance. The remaining portion of the project would be subject to both FAR limitations and Inclusionary Housing requirements.

~~Additionally, t~~ The Student Housing legislation revises common outdoor open space requirements for dwelling units (both student housing and non-student residential use),

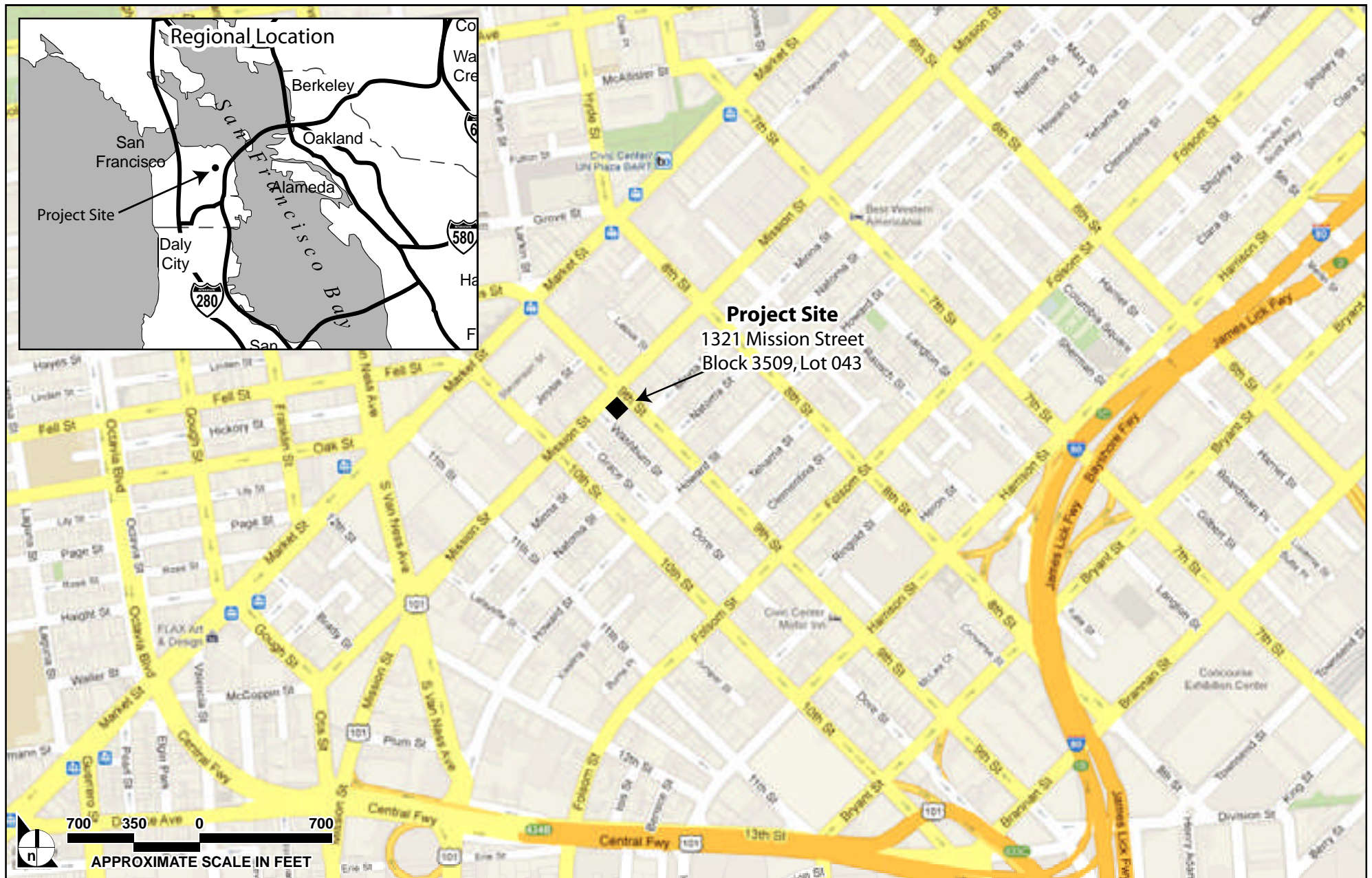
⁴ The third bedroom may be used as a common living space if the unit is used as a two-bedroom unit. The floor plan would remain the same for the two- or three-bedroom units.

reducing the minimum amount required for units under 350 square feet by one-third. As 75 percent of the units in the building are studio units with an average size of 291 sf, the amount of common outdoor open space provided in the common roof deck would be reduced accordingly to meet code requirements.

In the event the proposed Student Housing portion of the project does not qualify as a Student Housing ~~project~~ under the *Planning Code* or the project sponsor is unable to lease all or part of the building to an educational institution, FAR limits and Inclusionary Housing requirements would apply. As proposed, the project sponsor shall provide 12 below market rate units (15 percent of the 80 non-student residential units), of which three would be suites and nine would be studio units. In the event that the project is completely non-student residential use, there would be ~~In the event the project sponsor is required to provide the below market rate units, 24 below market rate units (15 percent) of the total 160 dwelling units~~ would be offered at below market rates, of which six would be suites and 18 would be studio units.

The project proposes that of the total 160 units, up to 120 be considered “efficiency dwelling units with reduced square footage”, or “EDUs”.⁵ Amendments to the San Francisco Building and Planning Codes now allow dwelling units with a minimum living area of 150 sf, exclusive of bathrooms and closets, and a minimum overall size of 220 sf. The Planning Department is authorized to approve up to 375 EDUs under a pilot program. Although some or all of the EDUs in the project could be used for student housing and would not be subject to the 375 unit cap per the Planning Code, the project sponsor is requesting an approval for all 120 units, because the entirety of the project may not be used for Student Housing in perpetuity.

⁵ Student Housing can convert to non-student residential use at any time and Student Housing has no EDU cap.



SOURCE: Google Inc., June 2012

FIGURE 1

Project Location



SOURCE: Impact Sciences, Inc., June 2012

FIGURE 2

Existing Project Site View: Northeast Corner of Ninth and Mission Streets



3D Conceptual Rendering • Corner of Mission and 9th Street



3D Conceptual Rendering • Mission Street



3D Conceptual Rendering • Corner of 9th and Washburn Streets



3D Conceptual Rendering • South Facade as Seen Along 9th Street

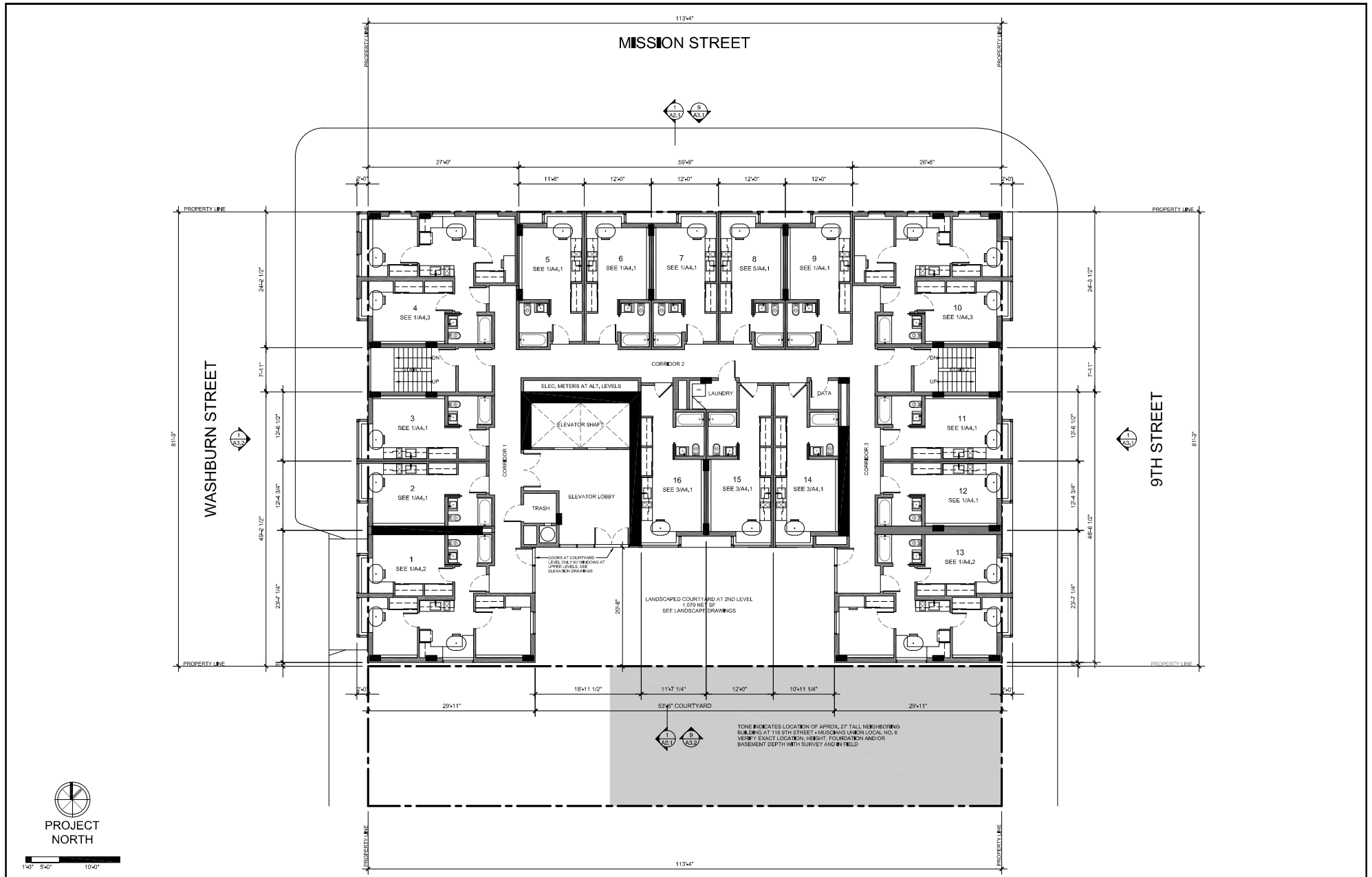
SOURCE: Mike Pitler Architecture, June 2012

FIGURE 3

Project Elevations



Ground Level Floor Plan



SOURCE: Mike Pitler Architecture, October 2012

FIGURE 5

Typical Residential Level Floor Plan

Commercial Space

The building's commercial frontage would be on Mission and 9th Streets. The ground floor commercial area would consist of approximately 3,359 gsf of leasable commercial space. At this time, the specific uses of the commercial space have not been determined.

Vehicle, Bicycle, and Pedestrian Access and Parking

The small, ground floor garage with an entrance on Washburn Street would accommodate one car-share parking space. A bulb-out would be constructed along the east side of Washburn Street from Mission Street to provide a new 18-foot curb-cut, which would provide access to the car-share parking space. There would be no other off-street parking or freight loading spaces.

Passenger loading and unloading would occur at a proposed 44-foot white zone on the south side of Mission Street near the primary residential entrance. A 22-foot green zone with metered parking is proposed on the south side of Mission Street, just west of the white zone, and a metered, commercial parking space for retail deliveries is proposed on the south side of Mission Street. The project would also add 8 new bike racks next to the project entrance on Washburn Street which would provide parking for 16 bicycles.

Figure 6, Basement Level Floor Plan, shows the basement level, which would include various mechanical spaces, two common rooms for use by residents, and approximately 2,185 gsf of space dedicated to bicycle parking that could accommodate approximately 240 bicycle parking spaces with at least 53 of them being Class 1(4) ⁶ bicycle parking spaces. This area would have secured access for the project's residents only.

Open Space

The proposed project would provide approximately 4,100 sf of common landscaped open space shown in **Figure 7, Roof Landscape Plan**, all of which would be located on the building roof deck. Additionally, the building would have an approximately 1,070 sf common landscaped courtyard on the first residential level (Floor 2). The five existing street trees along 9th and Mission Streets would remain and five additional trees and landscaping would be added as part of the streetscape plan for the three frontages of the building as shown in **Figure 8, Streetscape Plan**. Per the requirements of *Planning Code*, the project would provide 72 sf of Public Open Space in a portion of the landscaped bulb-out along Washburn Street.

⁶ According to Section 155.1 of the *Planning Code*, a Class 1 bicycle parking space refers to facilities which protect the entire bicycle, its components, and accessories against theft and inclement weather. The (4) denotes restricted access parking for the Class 1 bicycle parking spaces.

Utilities

The proposed project would be served by the San Francisco Public Utilities Commission (SFPUC) and Pacific Gas & Electric (PG&E). To meet the new San Francisco Green Building requirements for renewable energy, the proposed project may include two arrays of low slope photovoltaic (PV) panels that would be installed in the southern portion of the building roof (see **Figure 7**).

Construction Schedule and Activities

Construction of the proposed building would be preceded by the demolition of the existing building on the project site. Once vacated, demolition of the existing building would generally proceed as follows: (1) the contents of the building would be characterized; (2) any hazards present would be abated, including, but not limited to, asbestos containing materials and lead-based paint; (3) reusable and recyclable materials would be identified and removed; (4) the structure would be demolished and removed; and (5) the foundation slabs and underground utilities would be removed.

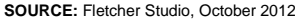
Debris generated from the demolition of the building would be sorted into materials that can be reused or recycled, materials that are contaminated and cannot be reused, and non-hazardous waste materials. Each type of material would be appropriately reused, stored, and/or disposed.

There is currently an approximately 8-foot basement on about half of the site, and the remainder has an approximately 3-foot crawl space. Excavation for the proposed project would be up to approximately 14 feet below grade surface (bgs) to accommodate the basement. The building elevator would require excavation up to approximately 17 feet bgs.

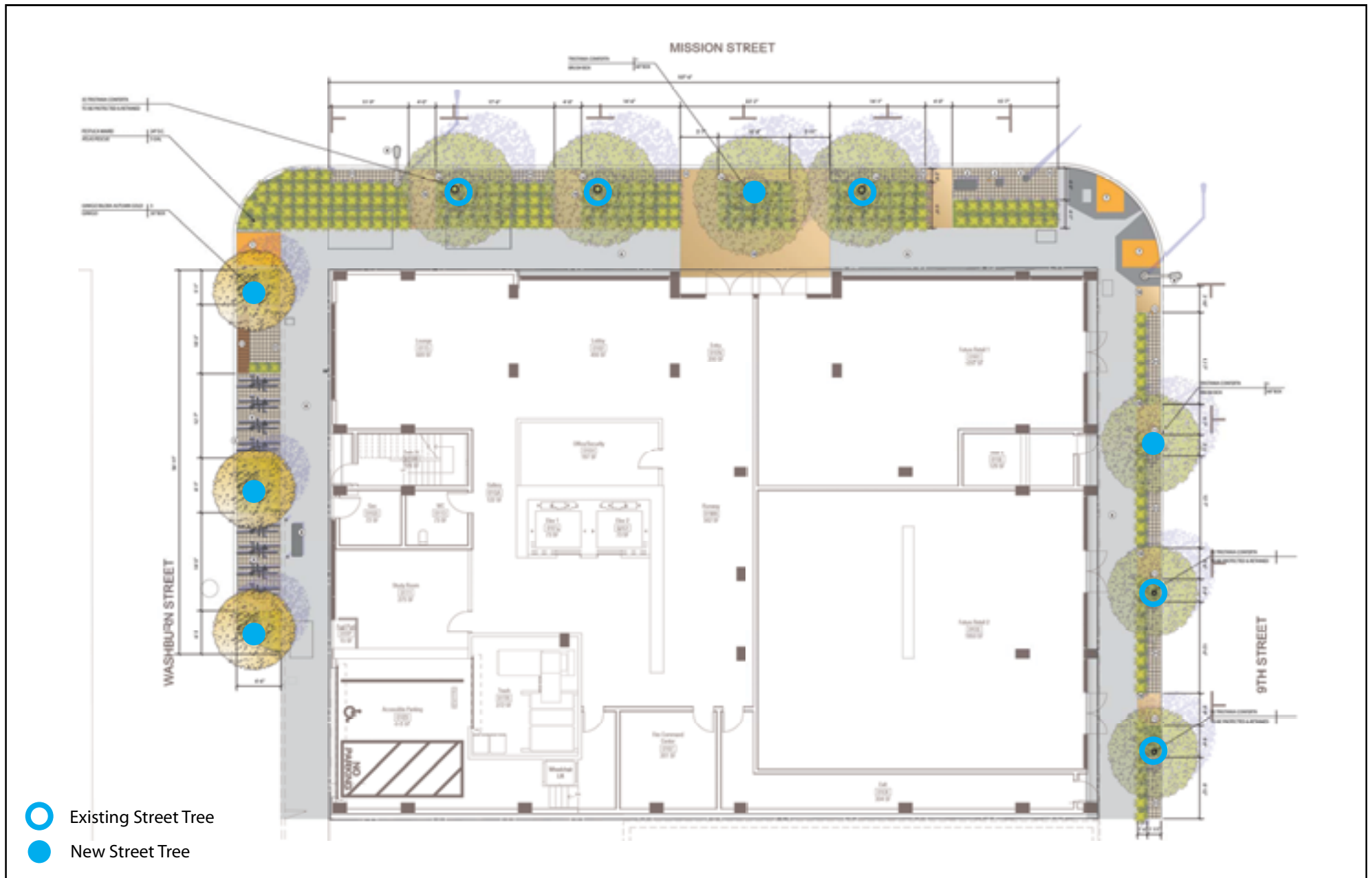
Project construction is estimated to take about 18 months, scheduled to begin early 2013, with building occupancy planned for fall 2014.



Basement Level Floor Plan



Roof Landscape Plan



SOURCE: Fletcher Studio, October 2012

FIGURE 8

Streetscape Plan

B. PROJECT SETTING

The project site comprises a single parcel located at 1321 Mission Street in the Downtown Area Plan and within the Downtown Support (C-3-S) zoning district. The surrounding area consists of a number of zoning districts reflecting the development pattern and mix of uses in the Downtown Area Plan, including SLR (Service/Light Industrial/Residential), C-M (Heavy Commercial), RH-3 (Residential Three-Family), C-3-G (Downtown General), and P (Public). The neighboring Western South of Market Area Plan land uses include SLR (Service/Light Industrial/Residential), C-M (Heavy Commercial), and RED (Residential Enclave).

The area on Mission Street north of the project site is designated C-3-G and is developed with a mix of commercial and residential uses. Commercial uses in the area include a café (98 9th Street), a variety of music, dance, and art studios (1310, 1360, 1385 Mission Street, 116 9th Street), a market and deli (99 9th Street) kitty-corner from the project, and a dance club (1337 Mission Street) to the west. There is a tourist hotel, Rodeway Inn (101 9th Street) to the east and several residential hotels around the project site, including The Washburn (42 Washburn), The Potter (1284 Mission), Ram's (80 9th Street), and the El Dorado (150 9th Street). There are community aid services (1338, 1375, and 1385 Mission Street) to the west and the County Adult Assistance Program (1235 Mission). Numerous multi-family residences and mixed-use developments are located along Mission Street north of the project site and along 9th Street to the south. In addition, there are single and multi-family residential units along the south side of Washburn Street adjacent to the proposed project. Buildings along the west side of Mission Street are generally taller than buildings on the east side of Mission Street. Most are two to four stories, but some are as tall as 25 stories.

The project block is bounded by 9th Street to the northeast, Washburn Street to the southwest, Mission Street to the northwest, and Howard Street to the southeast. Buildings in the area generally cover the entire parcel and are built to the sidewalk; two lots on the project block include surface parking. The buildings on the project block generally span the entire width of the block. Building heights range from two to four stories.

Parks and open spaces in the vicinity of the project site include Civic Center/UN Plaza (two blocks north), Howard and Langton Mini Park (five blocks southeast), Victoria Manalo Draves Park (seven blocks southeast), and Jefferson Square Park (eight blocks northwest).

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 type="checkbox"/>	<input checked="" type="checkbox"/>

San Francisco Planning Code

The San Francisco *Planning Code*, which incorporates the City's Zoning Maps, implements the San Francisco General Plan and governs permitted uses, densities and the configuration of buildings within the City. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless (1) the proposed project conforms to the *Planning Code*, (2) an allowable exception is granted pursuant to provisions of the *Planning Code*, or (3) amendments to the *Planning Code* are included as part of the project.

The project is seeking approval of 160 dwelling units, of which a minimum of 80 units (five floors) would be as a Student Housing project per the Planning Code and the recently approved Student Housing legislation, and the remaining 80 units (five floors) would be non-student residential use. The goal of the Student Housing legislation is to encourage the production of new student housing, and protect the existing housing stock. The legislation amends a number of different sections of the *Planning Code* and adds a new Code Section 102.36 to define Student Housing. The portion of the project that is Student Housing ~~To qualify as a Student Housing project, the project is required~~ to be controlled by one or more accredited post-secondary Educational Institutions for housing students, which could take the form of a master lease or other contractual agreement with the developer with at least a 5-year term.

The portion of the project that is Student Housing projects are ~~may be~~ exempt from Floor Area Ratio (FAR) limitations (Code Section 124k) with a conditional use, and are is not required to provide Inclusionary Housing (below market rate) units (Code Section 415.3) if the educational institution(s) leasing the ~~building units~~ meets certain requirements, including serving a percentage of students receiving need-based financial assistance.

The 80 units that would be non-student residential use would be subject to Inclusionary Housing requirements, resulting in 12 units (15 percent) being below market rate units.

Through a Conditional Use authorization granted under Planning Code Sections 124(f), the Planning Commission may allow building area above the base FAR limit for on-site units affordable to households earning less than 150 percent of median income. In total, the project is seeking a Conditional Use Authorization, pursuant to sections 124(k) and 124(f) to exceed the base FAR by approximately 34,067 gsf.

As discussed above, in the event that the proposed Student Housing portion of the project does not qualify as a Student Housing project under the Planning Code or the project sponsor is unable to lease all or part of the building to an educational institution, FAR limits and Inclusionary Housing requirements would apply. As proposed, the project sponsor shall provide 12 below market rate units (15 percent) of the 80 non-student residential units, of which three would be suites and nine would be studio units. In the event that the project is completely non-student residential use there would be ~~The project sponsor would provide 24 below market rate units (15 percent) of the 160 dwelling units at below market rate, of which six would be suites and 18 would be studio units, are exempt from FAR.~~

The project proposes that of the total 160 units, up to 120 be considered “efficiency dwelling units with reduced square footage”, or “EDUs”. Amendments to the San Francisco Building and Planning Codes now allow dwelling units with a minimum living area of 150 sf, exclusive of bathrooms and closets, and a minimum overall size of 220 sf. The Planning Department is authorized to approve up to 375 EDUs under a pilot program. Although some or all of the EDUs in the project could be used for student housing and would not be subject to the 375 unit cap per the Planning Code, the project sponsor is requesting an approval for all the units, because the entirety of the project may not be used for Student Housing in perpetuity.

Density. The project seeks approval for 120 studio dwelling units and 40 two-bedroom units. *Planning Code* Sections 215(a) and 209.1(l) permit up to 74 dwelling units. The proposed project would require a Conditional Use Authorization for an additional 56 units.⁷

Use. The project site is located in a Downtown Support (C-3-S) District wherein residential and commercial uses are permitted. Areas identified as Downtown Support include a variety of different uses, such as hotels, housing, museums and cultural facilities, retail and offices. The residential and retail uses of the proposed project would be consistent with the Downtown Support uses.

⁷ 120 efficiency units at ¾ of a unit = 90 units. 90 studio units + 40 2 +bedroom units = 130 units. 130 - 74 = 56 units

Height. The proposed project, at 120 feet in height, would comply with the *Planning Code's* 120-F Height and Bulk District, which permits structures up to a height of 120 feet.

Bulk. The project falls under the "F" bulk limitations, as defined in *Planning Code* Section 272, which require a maximum length of 110 feet, 0 inches, and a maximum diagonal dimension of 140 feet, 0 inches. The proposed building would be 113 feet, 4 inches long, with a diagonal dimension of 139 feet, 0 inches. The proposed length exceeds the bulk allowances by 3 feet, 4 inches, thus the project sponsor would seek an exception to the bulk requirements as permitted under a *Planning Code* Section 309 review.

Floor Area Ratio. The floor area ratio (FAR) limit as defined by *Planning Code* Section 124 for the Downtown Support District is 5.0:1. The proposed project has an adjusted building gross floor area of 80,107 gsf and a lot size of 9,208 sf, resulting in a FAR of approximately 8.7:1 or 34,067 gsf above the base FAR limit. Per the recently approved Student Housing legislation, the portion of the building that is Student Housing can may be exempt from exceed the base floor area ratio-FAR limits established in Section 124k by an undefined amount determined by the other envelope limits established through the *Planning Code* (height, bulk, etc.) and by the Planning Commission's Conditional Use findings, through a Conditional Use authorization (CU). As proposed, the remaining portion of the building (the non-student residential use) is subject to FAR limitations. In the event that the proposed Student Housing portion of the project does not qualify as a Student Housing project or the project sponsor is unable to lease all or part of the building to a an educational institution, the additional FAR limitations would apply over the *Planning Code* limit would be accommodated by below market rate units. Below market rate units are exempt from the FAR.

Open Space. Under the current *Planning Code* Section 135 (d)(2), the proposed project would be required to provide at least 3,830 sf of common open space.⁸ The proposed project would provide 4,100 sf of on-site useable open space in a roof deck which would meet the *Planning Code's* open space requirement.

Rear Yard Configuration. *Planning Code* Section 134 requires that a project's minimum rear yard depth be equal to 25 percent of the total depth of the lot on which the building is situated at all residential levels, which the proposed project would not meet. The

⁸ The *Planning Code* Section 135 states that the standard residential open space requirement is 36 sf per dwelling unit if the open space is private and 47.88 sf per dwelling unit if it is common open space. It also states that the requirement for efficiency units is one-third that of regular units. As the proposed project would provide common open space, it is required to provide at least 3,830 sf of common open space for its 160 dwelling units (120 efficiency dwelling units * 15.96 sf/unit = 1,915, and 40 dwelling units * 47.88 sf/unit = 1915, thus 1,915 + 1,915 = 3,830 sf).

project sponsor would need to apply for an exception to the rear yard requirements as allowed in C-3 Districts under a *Planning Code* Section 309 review.

Planning Code Section 140 requires that all dwelling units face directly onto 25 feet of open area (a public street, alley, or side yard) or onto an inner courtyard that is 25 feet in every horizontal direction and that gets larger at each subsequent floor. The proposed project would not meet this requirement for unit numbers 18, 19, and 20 on all residential floors, and would require a variance from the exposure requirements as allowed under *Planning Code* Section 305.

Parking. *Planning Code* Section 151.1 does not require off-street parking for the project. Off-street parking would not be provided for the proposed commercial or residential use. Section 166 requires one car-share space when the project includes between 50 and 200 residential units which would be provided in a garage along Washburn Street. Projects over 50 dwelling units are required under Section 155.5 to have 25 Class 1(4)⁹ bicycle parking spaces plus one space for every four dwelling units over 50 for a total of 53 Class 1(4) bicycle parking spaces. The basement would accommodate approximately 240 bicycle parking spaces with at least 53 of them being type Class 1(4) bicycle parking spaces.

Loading. The project's proposed commercial use does not exceed 10,000 sf, and the residential use does not exceed 100,000 sf. Therefore, the project would not be required to provide an off-street loading space per *Planning Code* Section 152.1 and none is proposed.

Affordable Housing. The proposed project is seeking approval of a minimum of 80 units (five floors) of Student Housing and another 80 units (five floors) of non-student residential use. As proposed, the project sponsor shall provide 12 below market rate units (15 percent) of the 80 non-student residential units, of which three would be suites and nine would be studio units. The is intended to be Student Housing portion, as defined under the *Planning Code* per City Ordinance 0188-12 that went into effect October 11, 2012, ~~and~~ would be exempt from the City's Affordable Housing Program, provided that the housing is owned or master leased by an accredited educational institution and that a certain percentage of the students living in the student housing qualify for income-based financial aid.

In the event that the Student Housing portion of the project does not qualify as a Student Housing ~~project~~, as established under the *Planning Code* the project would be required to

⁹ Section 155.1 A Class 1 bicycle parking space refers to facilities which protect the entire bicycle, its components, and accessories against theft and inclement weather. The (4) denotes restricted access parking for the Class 1 bicycle parking spaces.

provide Inclusionary Housing (BMR) units or pay an in-lieu fee, per *Planning Code* Section 415.3. Pursuant to Code Section 415.6(a)(1)(B), if on-site below-market units are provided, 15 percent of those units would need to be affordable to qualifying households. Since the project has a total of 160 units, it would be required to have 24 affordable housing units, of which ~~6~~six would be suites and 18 would be studios.

Plans and Policies

San Francisco General Plan. The San Francisco *General Plan* provides general policies and objectives to guide land use decisions. Any conflicts between the proposed project and policies that relate to physical environmental issues are discussed in Section E, Evaluation of Environmental Effects. The compatibility of the proposed project with *General Plan* policies that do not relate to physical environmental issues would be considered by decision-makers as part of their decision to approve or disapprove the proposed project. Any potential conflicts identified as part of the process would not alter the physical environmental effects of the proposed project.

Proposition M. In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 102.1 to the *Planning Code* to establish eight Priority Policies. These policies, and the sections of this Environmental Evaluation addressing the environmental issues associated with the policies are: (1) preservation and enhancement of neighborhood-serving retail uses; (2) protection of neighborhood character (Question 1c, Land Use); (3) preservation and enhancement of affordable housing (Question 3b, Population and Housing, with regard to housing supply and displacement issues); (4) discouragement of commuter automobiles (Questions 5a, b, f, and g Transportation and Circulation); (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership (Question 1c, Land Use); (6) maximization of earthquake preparedness (Questions 13a-d, Geology, Soils and Seismicity); (7) landmark and historic building preservation (Question 4a, Cultural Resources); and (8) protection of open space (Questions 8a and b, Wind and Shadow and Questions 9a and c, Recreation).

The City is required to find that the proposed project or legislation is consistent with the Priority Policies. It must do this before issuing a permit for any project that requires an initial study under CEQA, before issuing a permit for any demolition, conversion, or change of use, and before taking any action that requires a finding of consistency with the *General Plan*. As noted above, the consistency of the proposed project with the environmental topics associated with the priority policies is discussed in Section E of this document, Evaluation of Environmental Effects, providing information for use in the case report for the proposed project. The case report and approval motions for the project would contain the San Francisco Planning Department's comprehensive project

analysis and findings regarding the consistency of the proposed project with the Priority Policies.

Downtown Area Plan. The Downtown Area Plan encompasses large portions of Market Street and Mission Street as well as a stretch of Kearny Street. The plan facilitates appropriate growth and development in the area. The proposed project is within the Downtown Area Plan which is designed to allow appropriate growth but maintain the character of the area. The project would provide 160 housing units and a ground floor neighborhood-serving commercial space, which embodies the kind of growth envisioned in the Downtown Area Plan. The provision of ground floor commercial space is consistent with the existing character of commercial space in the area. Similar high-density residential developments were constructed in the last five years in the Downtown Area and near the project site.

The proposed project is within the Downtown Support District (C-3-S). The area immediately surrounding the proposed project includes both commercial and mixed-use (residential and commercial) development. The most prevalent land uses are Service/Light Industrial/Residential and Downtown General. A primary objective of the Downtown Area Plan is to promote housing in and adjacent to the Downtown. The Area Plan promotes incorporation of housing in commercial developments and conversion of underused industrial and commercial areas to residential use. The proposed project would be a residential, infill development in accordance with the objectives of the Downtown Area Plan.

Project Approvals

The project's residential and commercial uses would be allowed by right in the C-3-S use district and the 120-F Height and Bulk District. However, a variety of other facets of the proposed project would require approvals. A Conditional Use authorization (*Planning Code* Section 303) would be required for dwelling unit density (*Planning Code* Sections 215(a) and 209(l)) and for additional square footage above that permitted by the base floor area ratio (FAR) limits (Section 124(k)) and for on-site units affordable to households earning less than 150 percent of median income (Section 124(f)). Variances (*Planning Code* Section 305) would be required for dwelling unit exposure (*Planning Code* Section 140), street frontage active uses and transparency (*Planning Code* Section 145.1), and bay window and cornice projections (Section 136). Exceptions would be required under *Planning Code* Section 309 for rear yard (*Planning Code* Section 134(a)(1)(C)), bulk limitations (*Planning Code* Section 272), and, as described in greater detail later on in this document, for ground-level wind current requirements (*Planning Code* Section 148).

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 checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Biological Resources |
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Geology and Soils |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Wind and Shadow | <input type="checkbox"/> Hydrology and Water Quality |
| <input checked="" type="checkbox"/> Cultural and Paleo. Resources | <input type="checkbox"/> Recreation | <input type="checkbox"/> Hazards/Hazardous Materials |
| <input type="checkbox"/> Transportation and Circulation | <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Mineral/Energy Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Public Services | <input type="checkbox"/> Agricultural and Forest Resources |
| | | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

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 issue. For items that have been checked "Less Than Significant with Mitigation Incorporated," staff has determined that the proposed project would not have a significant adverse environmental effect provided that the project sponsor implements mitigation measures presented in Section G of this document. A discussion is included for most issues checked "Less Than Significant with Mitigation Incorporated," "Less Than Significant Impact," "No Impact," or "Not Applicable." For all of the items 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 Game. For each checklist item, the evaluation has considered the impacts of the project both individually and cumulatively.

<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>
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"/>

The project site is located on the corner of 9th Street, Mission Street, and Washburn Street in San Francisco's South of Market neighborhood within the Downtown Area Plan and the Downtown Support District. The project site is developed with a single-story building currently occupied by a furniture store. Surrounding land uses include mixed use, commercial, single, multi-family residential, and light industrial uses. Nearby uses include residences, a hotel, bar, deli, music and art studios, and restaurants. See **Figures 9a and 9b, Project Vicinity Views**, for views of the project vicinity.

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

Under project conditions, the existing single-story commercial building would be demolished and the site would be redeveloped with an 11-story residential building with a limited amount of neighborhood serving commercial space on the ground floor. The proposed project would not divide the physical arrangement of its block or surrounding area. It would be built within the existing lot boundaries and would be incorporated within the established street plan. As a result, it would not disrupt or divide the physical arrangement of an established community or impede the passage of persons or vehicles, and this impact would be *less than significant*.

Impact LU-2: The proposed project would not conflict with any applicable land use plans, policies, or regulations 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. (Less than Significant)

The proposed project would construct an 11-story residential building over ground floor commercial in an area zoned for a wide variety of uses, including housing and commercial. The project site is zoned Downtown Support (C-3-S). Residential and commercial uses are permitted land uses in the Downtown Support District, and the proposed use of the building would be compatible with the existing variety of residential, commercial office, commercial, and light industrial uses in the project area. Further, while the construction of the proposed project would introduce new residents to the project site where there are currently none, other housing developments exist within the surrounding area. The project would not conflict with applicable plans, policies, and regulations such that an adverse physical change would result. This is further described above under Section C. Therefore, the proposed project would have a *less than significant* effect with regards to existing plans and zoning.

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

Land use impacts are considered to be significant if the proposed project would have a substantial impact on the existing character of the project vicinity. The change in land

use on the site would not be considered a significant impact because the site is within the C-3-S zoning district, where the proposed uses are permitted. The proposed project would result in a different land use than the use that exists on the site at the present time. However, it would not introduce a new or incompatible land use to the area. As discussed in the Project Setting section, the project site is surrounded by a mix of land uses that include commercial, single and multi-family residential, and light industrial.

The proposed project would demolish the existing single-story commercial building and construct an 11-story, 120 foot tall building. The building would comply with the height and bulk limitations for the C-3-S zoning district set forth in the *Planning Code*. The proposed project's density would also be consistent with the density allowed under C-3-S zoning. The C-3-S controls are designed to promote development which is compatible with the surrounding neighborhood. The zoning controls permit mixed-use buildings, permit commercial development at the ground floor, and residential development above the ground floor. Although the project would intensify use of the site, the proposed residential and ground-floor commercial uses would be compatible with the existing mixed-use character of the project vicinity. As such, the project would have a *less than significant* impact on the existing character of the project vicinity.

Impact C-LU-1: The proposed project in combination with past, present, or reasonably foreseeable future projects in the vicinity would result in less than significant cumulative land use impacts. (Less than Significant)

Seven projects have been proposed, approved, or are under development within two blocks of the proposed project. Less than one block northwest of the project site is a proposed residential and commercial development at 55 9th Street, which would construct a 17-story building containing 260 dwellings units on a vacant lot.¹⁰ The Mercy Housing project is a 12-story, 136-unit, residential and commercial development that has been built approximately a block away at 1340-1390 Mission Street.¹¹ A little over a block away is a proposed residential and commercial development at 1415 Mission Street, which would demolish a tire store and construct a 14-story building with ground floor retail and 117 dwelling units.¹² Across the street from 1415 Mission Street is a proposed residential and commercial development at 1400 Mission Street which would construct a 15-story building with ground floor retail and 165 affordable dwelling units and remove the existing parking lot.¹³ Approximately two blocks to the northwest of the project site

¹⁰ Planning Department Case No. 2001.1039E / 2006.1248C / 2011.0089C

¹¹ Planning Department Case No. 2002.0927E

¹² Planning Department Case No. 2005.0540XCVZ

¹³ Planning Department Case No. 2008.0553E / 2011.1043

is a project that proposes to demolish a two-story existing building and construct a 230-dwelling-unit residential and commercial development at 1390 Market Street.¹⁴ Over a block away, to the southwest of the project site, at 1455 Market Street 626 dwelling units would be built on a vacant lot.¹⁵ Two new buildings, including a 180-dwelling-unit residential tower would replace an existing four-story building and parking lot, approximately two blocks to the west, at 1510-1540 Market Street.¹⁶

The cumulative projects include high density residential buildings and ground floor commercial space, consistent with the designated Downtown General Commercial (C-3-G) zoning. The proposed project, combined with the other proposed projects, would result in noticeable physical change to the surrounding area in terms of increasing the number of residential units and adding population density. However, these changes are consistent with land use policies and zoning controls in the area and would not divide an established community, would be consistent with applicable land use plans and policies or regulations, and would not contribute to a substantial impact on the existing character of the site vicinity. For these reasons, the proposed project, in conjunction with other past, present and reasonably foreseeable projects, would not result in a cumulatively considerable land use impact.

Based on the information presented above, the proposed project would result in *less than significant* project-specific and cumulative land use impacts.

¹⁴ Planning Department Case No. 2005.0979E

¹⁵ Planning Department Case No. 2003.0262E/V

¹⁶ Planning Department Case No. 2009.0159E

<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>
2. AESTHETICS—Would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and other features of the built or natural environment which contribute to a scenic public setting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area or which would substantially impact other people or properties?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A visual quality analysis is somewhat subjective and considers the project design in relation to the surrounding visual character, heights, and building types of surrounding uses, its potential to obstruct scenic views or vistas, and its potential for light and glare. The proposed project would have significant aesthetic impacts under CEQA if it were to affect scenic vistas, damage scenic resources, degrade the visual character of the area, or create a new source of substantial light or glare.

Impact AE-1: The proposed project would not result in a substantial adverse impact on scenic views and vistas. (Less than Significant)

The topography of the project site and surrounding area is generally flat. **Figures 9a and 9b** provide views of the streets that flank the project site and while the view down Mission Street provides minimal views of some of San Francisco's hills (**Figure 9a**), no scenic vistas are available from these streets or the project site. Therefore, the proposed project would not block or degrade any existing public scenic vistas. The proposed project would change views currently observed from streets adjacent to the site, such as north-south views on 9th Street and Washburn Street, and the east-west views on Mission Street; however, its mass and height would be consistent with similar sized buildings in the area and it would not eliminate any scenic view or vista available at the present time from public areas, including those from long range viewpoints. By replacing a single-story building with a new 11-story building, the project would at least partially impair or modify existing private views from adjacent buildings and other buildings near the site; such changes for some nearby residents would be an unavoidable consequence of the proposed project and could be undesirable for those

affected individuals. While this loss or change of private views might be of concern to those property owners or tenants, it would not affect a substantial number of people and would not be considered a significant impact pursuant to CEQA in the densely developed urban context of the South of Market neighborhood. Therefore, impacts related to scenic vistas would be *less than significant*.

Impact AE-2: The proposed project would not substantially damage any scenic resources. (Less than Significant)

The project site would not be considered a scenic resource, as its visual attributes are defined by a single-story building that is not characterized as a historic building. There are no scenic highways in the vicinity of the project site. The nearest scenic highway, Highway 280, is south of the site in San Mateo County. The five existing street trees along Mission and 9th Streets would be incorporated into the project and would not be removed. No other scenic resources such as rock outcroppings exist on the project site. Therefore, the impact of the proposed project on scenic resources would be *less than significant*.

Impact AE-3: The proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. (Less than Significant)

The proposed project would result in a visual change to the project site and its surroundings because it would entail construction of an 11-story, 120-foot-tall building on a site that currently is occupied by a single-story building. Although the immediate context is a mixture of two- and three-story commercial properties, and four- to six-story mixed use properties constructed between 1907 and the 1940s with a few contemporary mid-scale apartment buildings, the height of the building is consistent with more modern buildings found in neighboring blocks to the north and east. These include the building at the intersection of 9th Street and Jessie Street (Edith Witt Senior Community) and the building at the intersection of Mission Street and 10th Street (10th and Mission Family Housing). Both buildings are approximately a block away. The skyline to the north and northwest of the project site features additional buildings that are of a similar height or taller than the proposed project (see **Figures 9a** and **9b**). Although the proposed building would be taller than several buildings in the immediate vicinity, the project's proposed height is consistent with the requirements of the 120-F Height and Bulk District and with the heights of several buildings in the area.



View to the South-West down Mission Street



View to the South-West down Mission Street

SOURCE: Garavaglia Architecture, Inc., 2011

FIGURE 9a

Project Vicinity Views



View to the North-West down 9th Street



View to the North-East up Mission Street

SOURCE: Garavaglia Architecture, Inc., 2011

FIGURE **9b**

Project Vicinity Views

Construction of the proposed building would not result in a substantial, demonstrable negative aesthetic effect as it would be constructed in an area that contains a variety of building types constructed from the post-1906 earthquake period to the present. Further, as described above, the flat topography and mixed land-use setting alleviates the potential of the proposed project to block, degrade, or obstruct any scenic view or vista now observed from a public area. Therefore, impacts to visual character or quality would be *less than significant*.

**Impact AE-4: The proposed project would result in a new source of light or glare.
(Less than Significant)**

The project site is occupied by a single, one-story building which is illuminated at night. Illumination from the existing building is similar to that of other commercial uses in the vicinity. The proposed project would replace this building with an 11-story residential building. The proposed project would add exterior lighting to the building which would be restricted to illuminating the building's pedestrian and vehicular access points. In addition, as an 11-story, modern building with a large area of glazing the building would emit more night light than the existing one-story building. However, the additional night lighting associated with the proposed project would be similar to that emitted by other such structures in the area including the modern buildings found in neighboring blocks to the north and east.

The proposed project would not include any reflective glass and would not cause any glare impacts on nearby pedestrians or autos. The proposed project would comply with City Planning Commission Resolution No. 9212, which prohibits the use of mirrored or reflective glass.

As noted in the Project Description, to comply with the City's Green Building Requirements for renewable energy, the proposed project may include an on-site renewable energy source which would be two arrays of photovoltaic panels that would be installed in the southern portion of the building roof (see **Figure 7**). Photovoltaic panels would be dark-colored and would have a glass surface that is textured for the purpose of minimizing glare. They would be mounted at a low angle, and generally not visible from the surrounding areas due to the height of the roof relative to surrounding buildings. For all of these reasons, they would not create substantial new glare.

The environmental effects of light and glare from the proposed project would be *less than significant*.

Impact C-AE-1: The proposed project in combination with past, present, and reasonably foreseeable future development in the project vicinity would result in less than significant impacts to aesthetic resources. (Less than Significant)

As stated above, there are no scenic resources on the project site. Therefore, the proposed project would not contribute to a cumulative impact associated with the loss of scenic resources. Implementation of the proposed project, in combination with the cumulative projects described above in **Section E. 1 Land Use and Land Use Planning**, page 23, would result in a change to the visual character of the project site vicinity. The seven cumulative projects are also predominantly residential buildings with ground floor commercial similar to the proposed project and would be high-rise involving between 12 and 17 stories. Therefore, the cumulative projects would also change the visual character of their respective project sites. However, this change would not result in a significant adverse impact to the existing visual character of the vicinity. The proposed project and other proposed projects would be consistent with the dense, residential and mixed-use character of the project area. As described above, the project would appear similar to a number of existing or planned buildings and would not significantly affect public views. In addition, the proposed project and cumulative projects would generate additional nighttime illumination to the area. However, with compliance of all the projects with the City's regulations regarding light and glare, the additional nighttime light and glare added to the area would not substantially affect views, people, or properties in the area. Therefore, the proposed project, in conjunction with past, present and reasonably foreseeable future projects, would have a *less than significant* cumulative aesthetic impact.

Based on the information presented above, the proposed project would result in *less than significant* project-specific and cumulative impacts on aesthetics in the area.

<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. 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact PH-1: The proposed project would not induce substantial population growth, either directly or indirectly. (Less than Significant)

The Department of Finance estimates the 2012 population for the City of San Francisco to be 812,538 people.¹⁷ The Association of Bay Area Governments (ABAG) population projection for San Francisco is 837,500 people in 2015 and 969,000 people in 2035.¹⁸ According to the 2010 US Census, the population in the proposed project's Census Tract 176.01 was approximately 7,630 residents with an average of 1.44 persons per household.¹⁹ In general, a project would be considered growth inducing if its implementation would result in substantial population increases and/or new development that might not occur if the project were not implemented.

The existing furniture store on the site employs up to 5 people. By removing the existing building, the proposed project would displace these existing jobs. Once constructed and occupied, the ground floor commercial space included in the proposed project would employ approximately 10 people.²⁰

¹⁷ Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012. available at: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>. Accessed May 23, 2012

¹⁸ Association of Bay Area Governments (ABAG). Building Momentum: Projections and Priorities 2009. August 2009.

¹⁹ 2010 US Census Tract 176.01. Available at: <http://2010.census.gov/2010census/popmap/>. Accessed May 23, 2012.

²⁰ The estimated number of commercial employees is based on the project's proposed commercial space (3,359 gsf) divided by 350 employees per square foot, derived from Table C-1 of the Transportation Impact Analysis Guidelines, San Francisco Planning Department, October 2002.

Based on the project's provision of 160 dwelling units, the proposed development is estimated to accommodate approximately 230 residents.²¹ The increase in residential population due to the project would be a 3 percent increase in the census tract population and 0.03 percent increase in the 2012 population of the City of San Francisco, less than 0.2 percent of the growth in the City's population that is projected by ABAG through 2035. The increase in population from the proposed project would be well within and consistent with ABAG population projections for San Francisco. Therefore, the proposed project would not induce a substantial population growth in San Francisco.

While potentially noticeable to immediately adjacent neighbors, 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. Construction of the project would not be expected to generate substantial growth or concentration of population in the project area beyond that expected for the area.

In June 2008, the ABAG projected regional needs in its Regional Housing Needs Determination (RHND) 2007-2014 allocation. The projected need of the City and County of San Francisco from 2007 to 2014 is 31,193 total new dwelling units, or an average annual need of 4,456 net new residential units.²² The project's residential uses would help address the City's broader need for additional housing in a Citywide context in which job growth and in-migration outpace the provision of new housing. The proposed project would add 160 residential units to the City's housing stock, contributing new residential units to meet the RHND allocation.

Based on the above discussion, the proposed project would not directly or indirectly induce substantial population growth in San Francisco nor displace substantial numbers of people or housing units and therefore would result in a *less than significant* population impact.

²¹ The estimated number of residents is based on the project's total unit number multiplied by the average number of persons per household of 1.44.

²² Association of Bay Area Governments, San Francisco Bay Area Housing Needs Plan, 2007-2014, June 2008. For more information see: <http://www.abag.ca.gov/planning/housingneeds/> Accessed March 7, 2012

Impact PH-2: The proposed project would not displace housing units, create demand for additional housing, or displace a substantial number of people necessitating the construction of replacement housing elsewhere. (No Impact)

The project site currently houses no residents, and therefore no residential displacement would result from the project. The project would displace up to 5 employees at the furniture store, while the proposed commercial space would accommodate an estimated 10 new employees. Due to the small number of new employees and the type of commercial space, it is anticipated that the additional employees would likely already be living in the San Francisco area or could be accommodated within the existing housing stock. Consequently, the proposed project would not create demand for additional housing. Thus, the project would have *no impact* related to displacement of residents or employees nor would it create a demand for additional housing.

Impact C-PH-1: The proposed project in combination with past, present, and reasonably foreseeable future development in the project vicinity would result in less than significant cumulative impacts on population and housing. (Less than Significant)

The cumulative projects, described in **Section E. 1 Land Use and Land Use Planning**, page 23, would provide housing to help meet regional housing needs. As discussed above, the proposed project would not displace substantial numbers of people or existing housing units. Similar to the proposed project, the cumulative projects would not displace people or housing units and would add new housing to the City. Based on the average household size in the area (see Impact PH-1 above), the population from the cumulative projects would be approximately 2,468 people in addition to the approximately 230 persons added by the proposed project. This population increase would be within the ABAG growth projections for San Francisco. Although the proposed project and cumulative development would increase the density of development at each project site, compared to existing conditions, this increase would not be considered significant because of the existing high density of population in the vicinity. The proposed project, in conjunction with other cumulative projects would result in *less than significant* cumulative impacts on population and housing.

Based on the analysis above, the project-specific and cumulative impacts to housing or population from the proposed project would be *less than significant*.

<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>
4. CULTURAL AND PALEONTOLOGICAL RESOURCES—Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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"/>

Under the CEQA criteria, a project would have significant impacts on cultural resources if it would cause a substantial adverse change to a historical resource, cause a substantial change to the significance of an archaeological resource, destroy a paleontological resource or unique geologic feature, or disturb any human remains.

Impact CP-1: The proposed project would not result in a significant impact to historic resources. (Less than Significant)

The following information is summarized from a Historic Resource Evaluation Response (HREER) prepared for the proposed project by Planning Department staff as well as the Historic Resource Evaluation Report prepared by Garavaglia Architecture, Inc.^{23,24} The project site is at the southwest corner of 9th and Mission Streets. In the project vicinity there is a mixture of two- and three-story commercial properties, and four- to six-story mixed use properties constructed between 1907 and the 1940s with a few contemporary mid-scale apartment buildings. The project site currently contains two conjoined commercial buildings at 1321 Mission Street and 104 9th Street. Built separately, the buildings are now joined through an opening in the shared wall and currently function as a single building. The building is not currently listed in any local, state, or national

²³ Tam, Tina, *Historic Resource Evaluation Response, 1321 Mission Street and 104 9th Street*, available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

²⁴ Garavaglia Architecture, Inc. *1321 Mission Street/104 9th Street Historic Resource Evaluation Report*, April 3, 2012. available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

historical register, nor has it been evaluated as part of any adopted historic resource survey.

Under *State CEQA Guidelines* Section 15064.5(a), a resource would be determined a historical resource if it meets the criteria for listing on the California Register of Historical Resources (CRHR) (*Public Resources Code*, Section 5024.1, Title 14 CCR, Section 4852). The resource must meet at least one of the four criteria of significance, and sufficient time must have passed to allow a “scholarly perspective on the events or individuals associated with the resource,” for its significance to be eligible for the California Register. In general 50 years is considered a sufficient amount of time.

Criterion 1: *Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.* The 1321 Mission Street building was constructed in 1910 and the 104 9th Street building was constructed in 1926. The South of Market neighborhood was devastated by the 1906 earthquake and fire. The project site was within the burned district. The two buildings were constructed within the first and second waves of rebuilding after the fire. However, neither building was important during the rebuild period, and the building is not eligible for the CRHR under Criterion 1.

Criterion 2: *Is associated with the lives of persons important in our past.* The 104 9th Street building was designed by architect William W. Harper for Frederick J. Klenck. F.J. Klenck was involved in local business and industry but his contributions do not appear to be significantly important within the context. The Seafarer’s International Union used the building as a hiring hall; however historical documents do not indicate that this location was particularly significant to the group’s activities. Records did not indicate that there were persons important to national, state, or local history in association with the building. Therefore, the building does not appear eligible for the CRHR under Criterion 2.

Criterion 3: *Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.* The building has undergone significant alteration over the past few decades and does not exhibit any distinctive characteristics that tie it to a particular point in history. The two buildings were joined in the interior by an opening in the shared wall around 1970. Additional exterior and interior reconfigurations have occurred several times. The building appears to retain little exterior physical integrity from the era of construction and no interior details or features from the building’s former uses. As such, the building does not appear to be eligible for the CRHR under Criterion 3.

Criterion 4: *Has yielded, or may be likely to yield, information important in prehistory or history.* Archival research and physical investigation of the site focused on the above ground resource. Therefore, no informed determination could be made regarding whether the project is eligible for the CRHR under Criterion 4. However, it appears unlikely that the site would yield information important in prehistory or history.

Thus, the building is not eligible for inclusion in the National Register of Historic Places or the California Register of Historical Resources.

The building is located directly adjacent to the boundary of the eligible Western SoMa Light Industrial and Residential Historic District. The building does not contribute to this eligible historic district. Further, the development proposed as part of this project would not appear to impact the integrity of setting of this eligible district, since the project site is located outside of the district boundaries.

For reasons presented above, the proposed project would have a *less than significant* impact on historical resources.

Impact CP-2: The proposed project would have the potential to result in damage to, or destruction of, as-yet unknown archaeological resources, should such resources exist beneath the project site. (Less than Significant with Mitigation)

A preliminary archaeological assessment of the proposed project by the Planning Department archaeology team determined that the proposed project could, in the absence of appropriate mitigation, adversely affect archaeological deposits.²⁵ The known archaeological sites in the vicinity of the project site are primarily prehistoric (CA-SFR-28, -136/H, and -148/H).²⁶ CA-SFR-136H and CA-SFR-148/H are temporary shell middens whereas CA-SFR-28 is a prehistoric site consisting of human remains. The project site is located in an area that was historically characterized by sand dune ridges and troughs. A portion of the project site is underlain by native sand deposits. Prehistoric shell middens have been found associated with native sand dune deposits. Furthermore, because the project site has supported urban land uses since at least the turn of the 20th century, the project site may feature artifact-filled hollows such as wells or privies which may be disturbed by project excavation. However, with

²⁵ Dean, Randall, Lewis, Don. MEA Preliminary Archeological Review: Checklist. October 2011. available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

²⁶ An archaeological site is usually assigned a trinomial by the Regional Information Center. This consists of the state abbreviation (CA), followed by the county abbreviation (SFR), followed by a number. The suffix "H" indicates the resource is historic. The suffix "/H" indicates both historic and prehistoric resources are present.

implementation of **Mitigation Measure M-CP-2**, the proposed project would have a *less than significant* impact.

Mitigation Measure M-CP-2 – Archaeological Monitoring.

The project sponsor shall retain the services of an archaeological consultant from the pool of qualified archaeological consultants maintained by the Planning Department archaeologist. The archaeological consultant shall undertake an archaeological monitoring program. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer (ERO) for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of 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 to a less than significant level potential effects on a significant archaeological resource as defined in *State CEQA Guidelines* Sect. 15064.5 (a)(c).

Archaeological monitoring program

The archaeological monitoring program (AMP) shall, at a minimum, include the following provisions:

The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the project archaeologist shall determine what project activities shall be archaeologically monitored. In most cases, any soils disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the potential risk these activities pose to archaeological resources and to their depositional context;

The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;

The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the ERO until the ERO has, in consultation with the archaeological consultant, determined that

project construction activities could have no effects on significant archaeological deposits;

The archaeological monitor(s) shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;

If an intact archaeological deposit is encountered, all soils disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction crews and heavy equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, present the findings of this assessment to the ERO.

If the ERO in consultation with the archaeological consultant determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

The proposed project shall be redesigned so as to avoid any adverse effect on the significant archaeological resource; or

An archaeological data recovery program shall be implemented, unless the ERO determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

If an archaeological data recovery program is required by the ERO, the archaeological data recovery program shall be conducted in accordance with an archaeological data recovery plan (ADRP). The project archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP. The archaeological consultant shall prepare a draft ADRP that shall be submitted to the ERO for review and approval. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the

expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the ADRP shall include the following elements:

Field Methods and Procedures. Descriptions of proposed field strategies, procedures, and operations.

Cataloguing and Laboratory Analysis. Description of selected cataloguing system and artifact analysis procedures.

Discard and Deaccession Policy. Description of and rationale for field and post-field discard and deaccession policies.

Interpretive Program. Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.

Security Measures. Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.

Final Report. Description of proposed report format and distribution of results.

Curation. Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Final Archaeological Resources Report. The archaeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the draft final report.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning

Department shall receive one bound, one unbound and one unlocked, searchable PDF copy of the FARR on CD along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

Impact CP-3: The proposed project would not result in damage to or destruction of paleontological resources. (Less than Significant)

Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. Paleontological resources include vertebrate, invertebrate, and plant fossils or the trace or imprint of such fossils. The fossil record is the only evidence that life on earth has existed for more than 3.6 billion years. Fossils are considered non-renewable resources because the organisms from which they were derived no longer exist. Thus, once destroyed, a fossil can never be replaced. Paleontological resources are lithologically dependent; that is, deposition and preservation of paleontological resources are related to the lithologic unit in which they occur. If the rock types were formed in a deposition environment not conducive to deposition and preservation of fossils, fossils will not be present. Lithological units which may be fossiliferous include sedimentary and volcanic formations.

There are no known paleontological resources at the project site. As further discussed below under **Section E. 5, Geology and Soils**, page 139, fill material underlies the site to a depth of approximately 10 feet below ground surface with sand deposits below the fill. The underlying fill is not of the type that would typically contain paleontological resources. The proposed project would involve foundation excavation to a depth of up to 14 feet over most of the project site, plus an additional 3 feet for the elevator pit. Because the depth of excavation would not be substantially deeper than the depth of fill material, the proposed project would not be expected to disturb any lithological formations, and the project would have a *less than significant* impact on paleontological resources.

Impact CP-4: The proposed project would potentially result in damage to, or destruction of, as-yet unknown human remains that may exist beneath the project site. (Less than Significant with Mitigation)

There are no known human remains, including those interred outside of formal cemeteries, located in the vicinity of the project site. In addition, given the historical use of the site and the presence of 18 feet of fill on the project site, it is considered highly unlikely that human remains would be encountered at the project site during excavation and grading for the proposed project. However, in the unlikely event that human remains are encountered during construction, any inadvertent damage to human remains would be considered a significant effect. However, with implementation of **Mitigation Measure M-CP-4**, the proposed project would have a *less than significant* impact.

Mitigation Measure M-CP-4 – Treatment of Human Remains

Human Remains, Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal Laws, including immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects.

Impact C-CP-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative impacts to cultural resources. (Less than Significant)

As discussed in Impact CP-1, the existing building on the project site is not considered a historical resource for the purposes of CEQA, and the project site is not within a potential historical district. The project site is located directly adjacent to the boundary of the eligible Western SoMa Light Industrial and Residential Historic District. However,

the existing building does not contribute to this eligible historic district and the proposed building would not adversely impact the integrity of setting of this eligible district, since the project site is located outside of the district boundaries.²⁷ Similarly, the cumulative projects would not remove a historic structure and these projects are also not located within the boundaries of a historic district. Therefore the cumulative projects, including the proposed project, would not result a significant cumulative impact on historic resources.

In addition, as stated above, there are no known archaeological or paleontological resources at the project site, and the underlying fill is unlikely to contain paleontological resources. Furthermore, mitigation measures are proposed to ensure that any archaeological resources encountered during site excavation and grading are duly protected from damage and loss. Therefore, with mitigation, the proposed project would not contribute to a cumulative impact on archaeological and paleontological resources.

The projects considered in the cumulative analysis are within a two block radius of the proposed project. Therefore, similar geologic formations and related archaeological finds, as described under Impact CP-2, would be affected by the cumulative development. Cumulative development in the project vicinity described more fully in **Section E. 1 Land Use and Land Use Planning**, page 23, could potentially impact archaeological resources. However, each project would be required to implement mitigation measures as necessary, reducing their project-specific impacts to less than significant levels. In combination with the proposed project, with mitigation, these cumulative projects would result in a *less than significant* cumulative impact to cultural resources.

For the reasons discussed above, and with implementation of **Mitigation Measures M-CP-2** and **M-CP-4**, the proposed project would have *less than significant* project-specific and cumulative impacts on cultural and paleontological resources.

²⁷ Tam, Tina, *Historic Resource Evaluation Response, 1321 Mission Street and 104 9th Street*, p. 2. available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

<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. TRANSPORTATION AND CIRCULATION— Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project 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 and is not discussed below. This section summarizes and incorporates the results of the *Transportation Impact Study* (TIS) performed for the proposed project and prepared by DKS Associates.²⁸ The TIS describes existing and future 2035 transportation conditions (roadway traffic, transit, pedestrian access, bicycle access, loading, and parking) in the vicinity of the proposed project with and without the proposed project. The following three scenarios were examined: existing, existing plus project, and cumulative conditions in 2035.

²⁸ *1321 Mission Street Project Transportation Impact Analysis*, DKS Associates, June 2012. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

Setting. The proposed project consists of the demolition of the existing commercial building and construction of a new 120-foot tall, 11-story, mixed-used building. The project would include 160 residential units and 3,359 square feet of ground-floor commercial space. Each residential floor would include 12 efficiency dwelling units and 4 two- or three-bedroom units. The project would also include one car-share parking space as well as 4,199 square feet of basement space for bicycle parking which would correspond to 240 bicycle spaces for residents. A bulb-out would be constructed along the east side of Washburn Street from Mission Street to provide a new 18-foot curb-cut which would provide access to one car-share parking space.

The project site is located on the southwest corner of Mission Street and 9th Street. The transportation study area for the proposed project is the area bound by Grove Street, South Van Ness Avenue, Folsom and 8th and 12th Streets.²⁹ The site is currently occupied by a 12,860 square foot commercial building. The commercial space is currently occupied by a furniture store and storage space. There are no off-street parking, loading spaces, or a loading dock on the project site. A small door on the Washburn Street side of the building is used for deliveries and dispatch of materials.

Existing Street Network. The project site fronts Mission Street, 9th Street, and Washburn Street.

Mission Street is a two-way, four-lane, northeast-southwest roadway parallel to Market Street to the north and Howard Street to the south. One travel lane in each direction is dedicated to bus-only traffic between 11th Street and Main Street. On-street metered parking is generally permitted on either side of Mission Street but is prohibited on both sides of the street during the PM Peak Period and on the south side of during the AM Peak Period in the vicinity of the project site. In the San Francisco *General Plan*, Mission Street is designated as a Transit Conflict Street, a Transit Preferential Street (transit-oriented), a Citywide Pedestrian Network Street, and a Neighborhood Commercial Street in the vicinity of the project site.

9th Street is a one-way, four-lane, northwest-southeast roadway parallel to 8th Street to the east and 10th Street to the west and extends between Market Street to the north and Division Street to the south. 9th Street passes in front of the project site. Travel along 9th Street is only permitted in the northwest bound direction. On-street metered parking is generally permitted on either side of 9th Street but is prohibited on both sides between 4:00 PM and 7:00 PM in the vicinity of the project site. 9th Street is designated as a Major Arterial in the San Francisco *General Plan*.

²⁹ 1321 Mission Street Project Transportation Impact Analysis, Figure 1, p. 4. DKS Associates, June 2012. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

Washburn Street is a north-south, one-way southbound-only street running between Mission Street and Howard Street. With one lane of moving traffic, Washburn Street is approximately 20 feet wide curb-to-curb with sidewalks on either side. Parking is generally permitted on either side of the street.

Other major streets in the project vicinity include Howard Street, on the southeast side of the project block; Market Street, one block northwest of Mission Street; and Folsom Street, one block southeast of Howard Street.

Howard Street is a one-way, three-lane, northeast-southwest roadway parallel to Mission Street to the north and Folsom Street to the south. Travel along Howard Street is only permitted in the southwest bound direction with on-street metered parking on both sides. In the San Francisco *General Plan*, Howard Street is designated as a Major Arterial.

Market Street is a major two-way northeast-southwest roadway through downtown San Francisco. In the San Francisco *General Plan*, Market Street is designated as a Transit Conflict Street, a Transit Preferential Street (transit-oriented), a Citywide Pedestrian Network Street, and a Neighborhood Commercial Street.

Folsom Street is a one-way, three-lane, northeast-southwest roadway parallel to Howard Street to the north and Harrison Street to the south. Travel along Folsom Street is only permitted in the northeast bound direction with on-street parking on both sides. Folsom Street is designated as a major Arterial in the San Francisco *General Plan*.

Intersection Operations. Existing operational conditions were evaluated for seven intersections, all of which are signalized. These include Mission Street/8th Street, (2) Mission Street/9th Street, (3) Mission Street/10th Street, (4) Howard Street/9th Street, (5) South Van Ness Avenue/Mission Street, (6) Market Street/10th Street, and (7) Bryant Street/9th Street. The locations of these seven intersections relative to the project site are shown in Figure 5, page 13 of the TIS report.

The operating characteristics of signalized intersections are described by the concept of Level of Service (LOS). LOS is a qualitative description of the performance of an intersection based on the average delay per vehicle. Intersection levels of service range from LOS A, which indicated free flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays. LOS A through D are considered excellent to satisfactory service levels. In San Francisco, LOS E is undesirable and LOS F is considered unacceptable operating conditions for signalized intersections.

As shown in **Table 3 Intersection Levels of Service – Existing Conditions**³⁰ below, during the weekday PM peak hour, all of the study intersections currently operate with acceptable conditions (LOS D or better).

Table 3
Intersection Levels of Service – Existing Conditions

No	Intersection Name	Control	PM Peak Hour	
			Average Delay ^{a,c}	LOS ^{b,c}
1	Mission Street/8 th Street	Signalized	27.3/37.9	C/D
2	Mission Street/9 th Street	Signalized	24.5/36.8	C/D
3	Mission Street/10 th Street	Signalized	28.9/41.2	C/D
4	Howard Street/9 th Street	Signalized	36.9	D
5	South Van Ness Avenue/Mission Street	Signalized	37.4	D
6	Market Street/10 th Street	Signalized	20.7	C
7	Bryant Street/9 th Street	Signalized	37.6	D

Notes:

a. Delay is in seconds per vehicle and is based on average stopped delay.

b. LOS = Level of Service

c. XX/YY for delay and LOS indicate observed operating conditions and transit lane enforcement conditions.

Source: DKS Associates 2012

Transit. The project site is well served by public transit, with local and regional transit service within walking distance. Local service is provided by the San Francisco Municipal Railway (Muni) bus and light rail. Nearby regional service to the East Bay and south of San Francisco is provided by Bay Area Rapid Transit (BART). Service to and from the South Bay/Peninsula is also provided by SamTrans and Caltrain and service to and from the North Bay is provided by Golden Gate Transit buses and ferries. The project site is located approximately 0.25 mile to the east of the Van Ness-Market Street Muni station. The area bounded by Grove Street, Van Ness Avenue, 12th Street, Folsom Street, and 7th Street was considered for the transit analysis.

Muni Service

Muni provides transit service within the City and County of San Francisco. Service options include bus (both diesel and electric trolley), light rail (Muni Metro), cable car,

³⁰ 1321 Mission Street Project Transportation Impact Analysis, Table 1. Pg. 12. DKS Associates, June 2012. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

and electric streetcar lines. The transit study area includes the following Muni service: 6 Parnassus, 9 San Bruno, 9L San Bruno Limited, 12 Folsom-Pacific, 14 Mission, 14L Mission Limited, 19 Polk, 21 Hayes, 47 Van Ness, 71 Haight-Noriega, and 71L Haight-Noriega Limited bus lines, the J Church, K Ingleside, L Taraval, M Ocean View, N Judah, and T Third Street light rail lines and the F Market and Wharves streetcar line operate along Market Street.

Regional Services

Bay Area Rapid Transit (BART): BART operates a regional rail transit system between the East Bay (from Pittsburg/Bay Point, Richmond, Dublin/Pleasanton and Fremont) and San Francisco and between San Mateo County and San Francisco with five lines and 43 stations through San Francisco, Alameda, Contra Costa, and San Mateo Counties. The five lines provide regular service between 4:00 AM and midnight with trains for each line arriving every 15-20 minutes. During the weekday PM peak period, headways are generally 5 to 15 minutes for each line. The nearest station for BART services is the Civic Center Station approximately 0.25 mile from the project site.

Within downtown San Francisco, BART operates underground below Market Street. In the vicinity of the project site, the nearest BART station is the Civic Center station, approximately 0.25 mile northeast of the project site. Between December 2010 and November 2011, the average weekday exits at this station were 18,173 riders. Four lines run through the wheelchair-accessible Civic Center station. Bikes are allowed on BART but only outside of the AM and PM peak-direction commute hours which are approximately between 7:00 AM and 9:00 AM and 4:30 PM and 6:45 PM, respectively.

Alameda-Contra Costa County Transit District (AC Transit): AC Transit operates bus service in western Alameda and Contra Costa Counties, as well as routes to the City of San Francisco and San Mateo County. AC Transit operates 33 “Transbay” bus routes between the East Bay and the Transbay Temporary Terminal, located at Howard Street and Main Street. The Transbay Temporary Terminal is approximately 1.5 miles from the project site and accommodates all Transbay AC Transit buses during the AM and PM commute periods. The Transbay Temporary Terminal is located near many major San Francisco Muni routes either at the terminal or on and near Market Street. Most Transbay service is provided only during commute periods, with headways between buses of approximately 15 to 20 minutes.

San Mateo County Transit District (SamTrans): SamTrans operates bus and rail service in San Mateo County, with select routes providing transit service outside of the County. SamTrans Routes KX, 292, 391, and 397 serve Downtown San Francisco providing connections to San Mateo County destinations. In general, SamTrans service to

downtown San Francisco operates along Mission Street to the Temporary Transbay Terminal at Howard Street and Main Street. SamTrans riders would need to transfer to Muni to access the project site. SamTrans operates bus routes along 9th and 10th Streets near the project site while the nearest bus stop is located at 7th Street and Mission Street.

Peninsula Rail Corridor (Caltrain, Peninsula Corridor Joint Powers Board): Caltrain provides passenger rail service on the Peninsula between Downtown San Francisco and Downtown San Jose with stops at several communities in San Mateo County and Santa Clara County. Limited service is available to communities south of San Jose. Within San Francisco, Caltrain terminates at 4th/King Station in the South of Market neighborhood and is the nearest station to the project site. Caltrain also has a station at 22nd Street in Potrero Hill. Both stations are accessible via Muni routes from the project site. Caltrain service headways during the AM and PM peak periods are between 6 and 23 minutes, depending on the type of train (e.g., local, limited, or express “baby bullet”). Caltrain riders could access the 4th/King Street Station by Muni bus route 47 Van Ness.

Golden Gate Transit: The Golden Gate Bridge, Highway, and Transportation District operates Golden Gate Transit (GGT) and provides bus and ferry service between the North Bay (Marin and Sonoma counties) and San Francisco. Golden Gate Transit operates six basic bus routes serving the Transbay Temporary Terminal, one limited stop service route, 17 routes serve the Financial District, and three routes serve the Civic Center. Bus routes are operated by Golden Gate Transit along 7th Street and 8th Street with the nearest bus stop at 8th Street and Mission Street, approximately 0.1 mile east of the project site. Basic bus routes operate at regular intervals of 15 to 90 minutes depending on time and day of week. Golden Gate Transit also operates ferry service between the Larkspur and Sausalito in the North Bay and the Downtown San Francisco Ferry Building during the morning and evening commute periods.

Muni Screenline Analysis: Muni service capacity and availability were 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 others 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 screenline for each route reflects the maximum load point (MLP) for each Muni line that crosses one of the screenlines. Capacity utilization is used to determine the amount of available space

within each screenline; thus, the number of passengers per transit vehicle is compared to the design capacity of the vehicle.³¹

Muni's established capacity utilization standard for peak period operations is 85 percent, which means all seats are taken and there are many standees. Because each screenline and most subcorridors include multiple lines with multiple vehicles, some individual vehicles may operate at or above 85 percent of capacity and are extremely crowded, while others operate under less crowded conditions. Except for the Metro Rail Lines, which operate at 87 percent, all corridor screenlines operate below the SFMTA 85 percent standard for transit vehicle loads.³²

Parking. The existing parking conditions were examined within a study area generally bounded by Market Street, 11th Street, Folsom Street, and 8th Street. Parking conditions were assessed for the midday peak period (1:00 to 3:30 PM) and the evening peak period (6:30 to 8:00 PM).

The parking study area provides on-street parking supply for both metered and time restricted parking spaces of approximately 1,277 vehicles, comprised mainly of 1-hour and 2-hour metered spaces. Adjacent to the project site, there are approximately 13 on-street parking spaces with 9 metered spaces along the south side of Mission Street and west side of 9th Street and 4 time restricted spaces along the east side of Washburn Street. Based on the on-street parking study, the utilization rate for on-street parking during the mid-day peak is 77 percent and the rate is 33 percent in the evening.

One off-street parking garage at 255 12th Street is located less than half a mile away from the project site which has a capacity of 850 parking spaces. However, at the time of the study only 750 parking spaces were available due to the closure of 100 spaces. The mid-day peak period occupancy is about 90 percent and 14 percent in the evening peak period.

The total parking utilization, including on- and off-street parking, is 82 percent during the midday peak period, and 26 percent during the evening peak period.

Loading. Currently, the project site contains no off-street loading facilities. In terms of on-street loading conditions, no loading zones or commercial parking spaces are located along 9th Street or Mission Street adjacent to the project site. There is one on-street

³¹ The capacity per vehicle includes both seated and standing capacity, where standing capacity is somewhere between 30 to 80 percent of seated capacity (depending upon the specific transit vehicle configuration). For example the capacity of a light rail vehicle is 119 passengers, the capacity of a historic streetcar is 70 passengers, and the capacity of a standard bus is 63 passengers.

³² *1321 Mission Street Project Transportation Impact Analysis*, Table 4. Pg. 24. DKS Associates, June 2012. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

loading dock at the southwest corner of the existing building accessible via Washburn Street and a yellow curb area for approximately 20 feet. However, field observations indicate that the loading zone is not well marked and is often occupied by parked (non-commercial) vehicles. There are additional loading zones in the vicinity of the project site but no other loading zones adjacent to the site.

Emergency Vehicle Access. Emergency vehicle access to the project site is available along the Mission Street 9th Street and Washburn Street curbs, with primary access likely from Mission Street.

Pedestrian Conditions. A qualitative evaluation of pedestrian conditions in the vicinity of the project site was conducted during the weekday midday and PM peak period. Adjacent to the project site on Mission Street, sidewalks are generally 10 to 12 feet wide. Based on field observations, pedestrian volumes were observed to be higher along Mission Street and Market Street where more commercial and mixed uses are present and transit stops are more prevalent. Existing pedestrian volumes in the area of the project site were observed to be moderate.

Bicycle Conditions. There are four bicycle routes within the vicinity of the project site. Bicycle route 20 runs along Market Street and Grove Street, bicycle route 23 runs along 8th Street, bicycle route 25 runs along 10th Street and 11th Street, and bicycle route 30 runs along Howard Street, 11th Street, and Mission Street. As part of the 2009 San Francisco Bicycle Plan, minor changes to the existing facilities, such as markings, and signage, on 10th Street and a striped bicycle lane on Howard Street are proposed. The plan also calls for additional bicycle infrastructure including parking services (i.e., racks, valet) and route expansion.

Significance Criteria

The significance criteria listed below are organized by mode to facilitate the transportation impact 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 - In San Francisco, the threshold for a significant adverse impact on traffic has been established as deterioration in the LOS at a signalized intersection from LOS D or better to LOS E or LOS F, or from LOS E to LOS F. For an intersection that operates at LOS E or LOS F under existing conditions, there may be a significant adverse impact depending on the magnitude of the project's contribution to the worsening of delay. In addition, a project would have a significant adverse impact if it would cause major traffic hazards, or would contribute considerably to the cumulative traffic increases that would cause the

deterioration in LOS to unacceptable levels (i.e., to LOS E or LOS F). The operational impacts on unsignalized intersections are considered potentially significant if project-related traffic causes the level of service at the worst approach to deteriorate from LOS D or better to LOS E or LOS F, and Caltrans signal warrants would be met; or would cause Caltrans signal warrants to be met when the worst approach is already operating at LOS E or LOS F.

Transit - The 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 on transit service levels could result.

Pedestrians - The 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 - The 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 - The 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 the 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-related impacts generally would not be considered significant due to their temporary and limited duration.

Impact TR-1: The proposed project would not 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, nor would the proposed project conflict with an applicable congestion management program,

**including but not limited to level of service standards and travel demand measures.
(Less than Significant)**

Policy 10.4 of the Transportation Element of the San Francisco General Plan states that the City will “Consider the transportation system performance measurements in all decisions for projects that affect the transportation system.” To determine whether the proposed project would conflict with a transportation- or circulation-related plan, ordinance or policy, this section analyzes the proposed project’s effects on intersection operations, parking and freight loading, as well as construction impacts.

Trip Generation. Trip generation rates for the proposed project were developed using the Planning Department’s *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002 (*SF Guidelines*). The *SF Guidelines* provide person trip generation rates, mode split, and vehicle occupancy information for each land use. The residential and retail uses in the proposed project would generate trips made by residents, employees, and visitors to the project site. These trip estimates are based on the number of residential units, and the square footage of retail space.

Person-trip generation is based on daily and weekday PM peak hour (4:00 to 6:00 PM) trip generation rates (number of trips per unit and number of trips per 1,000 gsf of use). As shown in **Table 4, Daily Person Trip Rate and Generation**, the proposed project would generate about 1,843 person-trips (inbound and outbound) on a weekday daily basis, and 273 person-trips (174 inbound and 99 outbound) during the weekday PM peak hour.

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Table 4
Daily Person Trip Rate and Generation³³

Land Use	Size/Units	Trip Rate		Trip Generation		
		Daily Rate ¹	PM Peak Hour ²	Daily Person	PM Peak Hour In ³	PM Peak Hour Out
Retail	3,617 sq. ft.	150	9.0%	543	24	24
Residential (Studio/1-bedroom)	120 units	7.5	17.3%	900	104	52
Residential (2-bedroom)	40 units	10	17.3%	400	46	23
TOTAL				1,843	174	99

Notes:

¹ Daily rate is per square foot or unit depending on land use.

² PM Peak Hour is a percent of the Daily Rate as detailed in the Guidelines.

³ For retail uses, 100% of all work trips during the PM peak hour and 50% of all non-work **trips** during the PM peak hour should be treated as outbound. For residential uses, all PM peak work trips and 33% of all PM peak hour non-work trips should be treated as inbound to the project. For the PM peak hour, the work/non-work split for retail uses is 4%/96% and 50%/50% for residential uses. Detailed in Table C-2 of the Guidelines.

Source: DKS Associates 2012

Mode Split. The people who would travel to or from the proposed project (person-trips) would travel on various modes of transportation, including autos, transit, walking, bicycle, motorcycle, taxi, and additional modes. The proportion of trips using a particular mode is called the mode split. Mode split information for the residential and retail uses was based on information contained in the *SF Guidelines* for employee and visitor trips to San Francisco's downtown (C-3) district. An average vehicle occupancy, as obtained from the US Census data (for residential uses) and the *SF Guidelines* (retail), was applied to the number of auto person trips to determine the number of vehicle trips generated by the proposed project.

It should be noted that the mode split for the residential portion of the proposed project was modified from the residential mode split from Census/ACS data for Census Tract 176.01, where the project site is located. The project description indicates the project will predominately be comprised of efficiency units ~~marketed towards students~~, provide no general parking (one car-share space will be provided), and provide up to 240 bicycle parking spaces. Therefore, because the project would utilize alternative modes of

³³ 1321 Mission Street Project Transportation Impact Analysis, Table 8. Pg.36. DKS Associates, June 2012. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

transportation at a higher rate, the auto mode share has been reduced from 15.7 percent (for typical residential uses) to 5 percent. The remaining auto mode share has been proportionally assigned to transit (47.6 to 53.6 percent), walk (22.5 to 25.4 percent), and other modes (14.2 to 16.0 percent), including by bicycle.

As shown below in **Table 5, PM Peak Hour Trip Generation by Trip Type and Mode Split**, the 273 PM peak trips would be distributed among various modes of transportation, including 25 automobile person trips, 128 public transit trips, 78 walking trips, and 42 by other means that include bicycling and motorcycles.

Table 5
PM Peak Hour Trip Generation by Trip Type and Mode Split³⁴

Land Use	Auto		Transit		Walk		Other		Total Trips	Vehicle Trips ^{2,4}
	%	Trips	%	Trips	%	Trips	%	Trips		
Retail¹	28.4	14	15.1	7	44.6	21	11.9	6	48	8
Residential³	5.0	11	53.6	121	25.4	57	16.0	36	225	10
TOTAL	-	25	-	128	-	78	-	42	273	18

Notes:

Mode splits and vehicle occupancy are obtained from the City and County of San Francisco Transportation Impact Analysis Guidelines and Census data;

¹ Retail modal splits are based on Table E-8: Visitor Trips to C-3 – Retail

² Persons per auto = 1.77 based on Table E-8: Visitor Trips to C-3 – Retail

³ Residential modal splits are based on ACS Census data for Census Tract 176.01

⁴ Residential persons per auto = 1.12 based on ACS data for Census Tract 176.01

Source: DKS Associates 2012

Intersection Impacts. According to the Department's significance criteria, the operational impact on signalized intersections is considered significant if project-related traffic causes the intersection level of service to deteriorate from LOS D or better to LOS E or LOS F, or from LOS E to LOS F.

A proposed project may result in significant adverse impacts at intersections that operate at LOS E or LOS F under existing conditions depending upon the magnitude of the proposed project's contribution to the worsening of the average delay per vehicle. In addition, a proposed project would have a significant adverse impact if it would cause

³⁴ 1321 Mission Street Project Transportation Impact Analysis, Table 10. Pg. 37. DKS Associates, June 2012. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

major traffic hazards or contribute considerably to cumulative traffic increases that would cause deterioration in levels of service to unacceptable levels.

As previously stated, the TIS evaluated the effects of the weekday PM peak-hour vehicle trips at seven intersections in the project vicinity: Mission Street/8th Street, Mission Street/9th Street, Mission Street/10th Street, Howard Street/9th Street, South Van Ness Avenue/Mission Street, Market Street/10th Street, and Bryant Street/9th Street. As noted above, during the PM peak hour all of these intersections currently operate at LOS D or better (acceptable conditions).

Table 6, Intersection Levels of Service – Existing Plus Project and 2035 Cumulative Conditions, shows a comparison of the three scenarios analyzed in the Traffic Impact Study: Existing, Existing Plus Project, and 2035 Cumulative (The 2035 Cumulative delay and LOS is shown in this table, the Cumulative Analysis is described under Impact C-TR-5, p. 56). Under the existing plus project conditions, all seven study intersections would operate at the same LOS as under existing conditions, with relatively small changes to the delays at any of the intersections. Therefore, the project would result in a *less than significant* impact on intersection operations.

Table 6
Intersection Levels of Service – Existing Plus Project and 2035 Cumulative Conditions³⁵

No	Intersection Location	Existing		Existing plus Project		2035 Cumulative	
		Average Delay ^{a,c}	LOS ^{b,c}	Average Delay ^{a,c}	LOS ^{b,c}	Delay ^{a,c}	LOS ^{b,c}
1	Mission Street / 8th Street	27.3/37.9	C/D	27.4/37.9	C/D	42.0/106.7	D/F
2	Mission Street / 9th Street	24.5/36.8	C/D	24.7/37.0	C/D	52.0/99.0	D/F
3	Mission Street / 10th Street	28.9/41.2	C/D	29.1/41.4	C/D	36.7/100.2	D/F
4	Howard Street / 9th Street	36.9	D	37.0	D	75.2	E
5	South Van Ness Avenue / Mission Street	37.4	D	37.4	D	38.5	D
6	Market Street / 10th Street	20.7	C	20.7	C	28.0	C
7	Bryant Street / 9th Street	37.6	D	37.6	D	81.5	F

Notes:

a Delay is in seconds per vehicle and is based on average stopped delay.

b LOS = Level of Service

c XX/YY for delay and LOS indicate observed operating conditions and transit lane enforcement conditions.

Source: DKS Associates

³⁵ 1321 Mission Street Project Transportation Impact Analysis, Tables 14 and 18. Pg. 44 and 58. DKS Associates, June 2012. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

Parking. San Francisco does not consider parking supply as part of the permanent physical environment. Parking conditions are not static, as parking supply and demand vary from day to day, from day to night, from month to month, and so forth. Hence, the availability of parking spaces is not a permanent physical condition but changes over time as people change their modes and patterns of travel.

Parking deficits are considered to be social effects, rather than impacts on the physical environment, as defined by CEQA. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. Environmental documents, should, however, address the secondary physical impacts that could be triggered by a social impact (*State CEQA Guidelines* Section 15131(a)). The social inconvenience of parking deficits is not an environmental impact, but there may be secondary physical environmental impacts, such as increased traffic congestion or changes in modes and patterns of travel. In the experience of San Francisco transportation planners, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles, or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel or change their overall travel habits. Any such resulting shifts to transit service in particular would be in keeping with the City's "Transit First" policy. The Transit First policy in Section 16.102 of the City's Charter provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation."

As noted previously, midday peak period (1:00 to 3:30 PM) and evening (6:30 to 8:00 PM) on-street parking conditions were evaluated for a study area generally bounded by Market Street, 11th Street, Folsom Street, and 8th Street.

The proposed project, including the commercial and residential units, would result in demand for 64 long-term parking spaces and one short-term parking space based on the number of dwelling units and size of retail space. The proposed project would include one car-share space but no additional off-street parking. The project would therefore have an off-street parking demand of 63 spaces that would be unmet by the proposed project.

As described above, under Existing Conditions, there is metered and time restricted on-street parking in the project vicinity, and one nearby parking garage which would provide off-street parking. The total utilization rate under existing conditions plus the proposed project for on- and off-street parking would be 86 percent during the midday peak period, and 30 percent during the evening peak period. During the midday peak period there are 363 on- and off-street parking spaces available for use by the proposed project. During the evening peak period there are 1,495 on- and off-street parking spaces

available for use by the proposed project. Project parking demand of 63 spaces would be accommodated through the existing on-street and off-street parking supply. Potential secondary effects may occur from cars looking for parking spaces in areas near the project site, where there is little available parking and would need to seek parking farther away from the project site if convenient parking is unavailable. However, this secondary effect is typically offset by a reduction in vehicle trips by others who are aware of constrained parking conditions in the project area or any area with limited parking spaces.

Loading Impacts. According to the Department's significance criteria, 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 created potentially hazardous conditions or significant delays affecting traffic, transit, bicycles or pedestrians.

Because the project's proposed commercial use would not exceed 10,000 sf, and the residential use would not exceed 100,000 sf, the project would not be required to provide an off-street loading space per *Planning Code* Section 152.1. However, the project proposes to provide a metered, commercial parking space for retail deliveries on the south side of Mission Street. Passenger loading and unloading would take place near a proposed 44-foot white zone on the south side of Mission Street near the primary residential entrance. A 22-foot green zone with metered parking is proposed on the south side of Mission Street, just west of the white zone. Residents moving in or out of the building could use the proposed commercial loading zone for temporary parking.

Based on the TIS, the proposed project would generate a demand for a maximum of three truck trips per day which would be staged between regular business hours of 9:00 AM to 5:00 PM. The trucks would use the loading zone proposed as part of the project. Therefore, the proposed project would be consistent with the *Planning Code* loading space requirements and have a *less than significant* impact on loading zones.

Construction Impacts. According to the Department's significance criteria, construction-related impacts generally would not be considered significant due to their temporary and limited duration.

Construction of the proposed project could temporarily affect traffic and parking conditions in the vicinity of the proposed project. Construction would take place for 18 months with six different phases; demolition, site preparation, grading, building construction, architectural coating/interior finishing, and street and sidewalk

repair/paving/landscaping. It is not anticipated that any temporary traffic lane, parking lane, or sidewalk closure would be necessary.

There would be a flow of construction related trucks into and out of the project site during the various construction phases. There would be an average of 20 to 25 daily truck trips during construction and a maximum of 40 daily truck trips during the demolition phase. The impact of construction truck traffic would be a temporary decrease in roadway capacity due to the slower movement and larger turning radii of trucks, which may affect both vehicular and transit operations. In addition, the project sponsor and construction contractors would meet with the City's Transportation Advisory Staff Committee (TASC) to determine feasible measures to reduce traffic congestion, including effects on the transit system and pedestrian circulation impacts during construction of the proposed project. TASC consists of representatives from the Traffic Engineering Division of the Department of Parking and Traffic (DPT), the Fire Department, MUNI, and the Planning Department. These construction traffic effects, although a temporary inconvenience to those who live, visit, or work in the area, would result in a *less than significant* change in the capacity of the existing street system. The project sponsor has agreed to incorporate **Improvement Measure I-TR-A** and **Improvement Measure I-TR-B** into the project to further reduce the less than significant traffic impacts during construction.

Improvement Measure I-TR-A – Construction Management

As an improvement measure to minimize the construction disruption of the general traffic flow on adjacent streets during the AM and PM peak periods, truck movements and deliveries will be limited during peak hours (generally 7:00 to 9:00 AM and 4:00 to 6:00 PM, or other times, as determined by SFMTA/TASC).

Improvement Measure I-TR-B – Construction Traffic Control

As an improvement measure to help reduce construction worker parking and general construction disruption, the project sponsor will coordinate the project's construction schedule with SFMTA and DPW in order to minimize construction-related impacts to the transportation network. The project construction traffic control plan (TCP) encourage carpooling and transit use for construction workers, and include informing the public and nearby businesses (generally achieved through written or electronic notices) of construction schedules and activities.

Impact TR-2: The proposed project would not substantially increase traffic hazards due to a design feature or incompatible uses. (Less than Significant)

The proposed project does not include any design features that would substantially increase traffic hazards, such as sharp curves or dangerous intersections, and would not include any incompatible uses. Therefore, it would result in a *less than significant* traffic hazard impact.

Impact TR-3: The proposed project would not result in inadequate emergency access. (Less than Significant)

The proposed project would not be expected to affect emergency response times or access to other sites. Emergency vehicles would be able to reach the project site from multiple locations along the nearby streets, including 9th Street, Mission Street, and Washburn Street. The proposed building is required to meet the standards contained in the Building and Fire Codes, and the San Francisco Building and Fire Departments would review the final building plans to ensure sufficient access and safety. Vehicle access to the small one-car garage would be from Washburn Street. However, there would be minimal traffic disturbances from the occasional vehicle entering the garage. In addition, emergency vehicle access to the site would not be hindered by the additional vehicle trips to and from the site because there is only one car-share space proposed for the project site and minimal on-street metered parking adjacent to the project site. Therefore, the project would have a *less than significant* impact on emergency access to the project site and surrounding properties.

Impact TR-4: The proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such features. (Less than Significant)

Transit. As previously discussed, the proposed project is well served by public transit, with both local and regional service provided nearby. The proposed project is located within walking distance (a little over a quarter mile) of Civic Center Bay Area Rapid Transit (BART) station and the San Francisco Municipal Railway (Muni) station on Market Street that provides transit links to Caltrain, the Transbay Terminal, and the Ferry Building, which are major transit connections. Local service is provided by Muni lines, which can also be used to access regional transit operators such as Golden Gate Transit, SamTrans, and Caltrain.

The San Francisco Municipal Transportation Agency and the City Controller's Office developed the Transit Effectiveness Project (TEP). Initial planning documents and findings were presented in October 2008 and an Implementation Strategy was developed in 2011. The TEP would reroute, discontinue, increase frequency of service, or add additional service to lines depending on demand.

As previously discussed, a proposed project would have a significant effect on transit 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.

The proposed project is estimated to generate 128 peak-hour (84 inbound and 44 outbound) transit trips which would be distributed among the public transit lines providing service to the vicinity of the project site. Overall, the project would increase demand of the Muni lines over existing conditions by 40 riders but maintain the current utilization of 68 percent. The percentage of utilization for public transit in the East Bay, North Bay, and South Bay would remain the same under existing conditions as compared to the project incorporated into the existing conditions.

The proposed project would add vehicle trips to adjacent streets with Muni bus service, including Mission Street, Market Street, 11th Street, and 8th Street. However, these vehicle trips would not affect transit operations as they are small in number (20 for the PM peak hour) and would generally not be in direct conflict with local transit. Additionally, the proposed project would not affect existing bus stop locations including the nearest outbound stop at Mission Street and 9th Street. Therefore, the proposed project would have a *less than significant* impact on transit services.

Pedestrian Impacts. A proposed project would have a significant effect on the pedestrian 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.

The proposed project would generate 78 walking trips during the PM peak hour. Approximately 30 percent of the pedestrian demand would be generated by the commercial use while the remaining 70 percent would be generated by the residences. Existing pedestrian volumes in the area of the project site were observed to be moderate and the added project-related pedestrian traffic could be accommodated by existing pedestrian facilities.

The proposed project includes sidewalk improvements in the form of a bulb-out, to the east side of Washburn Street. A new driveway on the east side of Washburn Street

would be constructed to access the one car-share space and has the potential to conflict with pedestrians along the Washburn Street sidewalk. Audio and visual alerts at the new driveway would be included as an aid to pedestrians.

Vehicles accessing the one car-share space would be required to turn from eastbound Mission Street to southbound Washburn Street resulting in potential vehicle-pedestrian conflicts. However, because only one car-share space is proposed, the vehicle-pedestrian conflicts would be minimal.

The project would not result in an increase in the amount of overcrowding on public sidewalks, interfere with pedestrian circulation and circulation to nearby areas and buildings, or create potentially hazardous conditions for pedestrians. Therefore, the project would have a *less than significant* impact on pedestrian facilities.

Bicycle Impacts. A proposed project would have a significant effect if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.

The proposed project would generate approximately 273 daily bicycle trips, including 42 bicycle trips during the PM peak hour. As noted above, there are four bicycle routes (Routes 20, 23, 25, and 30) within the vicinity of the project site.

Planning Code Section 155.5 requires projects with over 50 dwelling units to have 25 Class 1 bicycle parking spaces plus one space for every four dwelling units over 50. Under the *Planning Code*, the proposed project is required to have 53 Class 1 bicycle parking spaces. The proposed project would exceed the bicycle parking requirements by providing up to as many as 240 Class 1 parking spaces in the basement. The proposed project would also add eight new bike racks to the existing bike rack on Mission Street for a total of nine bike racks.

The proposed project would not conflict with the Transit Effectiveness Project (TEP) which may be implemented along Mission Street in the long term as the project would make no changes to Mission Street nor would it include any garage entrances on that street that could interfere with the TEP. It would also not conflict with the San Francisco Bicycle Plan. A new curb cut for access to the proposed car-share space in the building's ground-level garage on Washburn Street would not interfere with autos or bicycles traveling along that street. Minor improvements to Bike Route 30 along Howard Street and Bike Route 25 along 10th Street are included in the San Francisco Bicycle Plan,³⁶ and implementation of the proposed project would not conflict with these improvements. In addition, the Bicycle Plan calls for additional bicycle infrastructure including parking

³⁶ San Francisco Bicycle Plan, July 2009.

services (i.e., racks, valet) and route expansion. The project would remain consistent with and would not create new conflicts with the San Francisco Bicycle Plan. Thus, the project would have a *less than significant* impact on bicycle facilities and bicycle travel and on adopted policies, plans, and programs regarding public transit, bicycle, or pedestrian facilities.

Impact C-TR-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative transportation impacts. (Less than Significant)

To analyze the cumulative impacts of the proposed project, the 2035 Cumulative Conditions scenario was developed, based on the San Francisco County Transportation Authority (SFCTA) countywide travel demand forecasting model. The SFCTA model takes into account future development planned for the South of Market Area, as well as projected housing and employment for San Francisco and the Bay Area.

Cumulative Intersection Level of Service Impacts. The Level of Service (LOS) for all of the study intersections would change under the 2035 Cumulative Conditions in comparison to the Existing Conditions as shown in **Table 6** above. While five intersections would continue to operate at LOS D or better, the LOS of two study intersections would degrade from LOS D to E at the intersection of Howard Street and 9th Street and from LOS D to F at the intersection of Bryant Street and 9th Street. Therefore, project contributions to the LOS E or F operating conditions at these two intersections were analyzed.

At the intersection of Howard Street and 9th Street, during the PM Peak Hour, zero (0) vehicles would be added by the proposed project to the critical westbound-right movement, which would operate at LOS F. Therefore, the project would not contribute additional traffic to this poorly operating critical movement. At the intersection of Bryant Street and 9th Street, during the PM Peak Hour, zero (0) vehicles would be added to the critical northbound-through movement along 9th Street, which would operate at LOS F. Therefore, the project would not contribute additional traffic to this movement. The project would therefore have a *less than significant* cumulative effect on traffic during operation.

Cumulative Transit Impacts. The difference in hourly ridership demand on Muni between the 2035 Cumulative No Project and 2035 Cumulative Conditions would be minor. The 2035 Cumulative Conditions would not result in a measurable increase in usage of Muni lines except the Northeast Screenline. The project would add 34 riders on the Northeast Screenline which would increase the utilization by 1 percent as compared

to the 2035 Cumulative No Project scenario. There would be an increase of 40 riders on local public transportation which would not alter the total utilization of 88 percent.

The overall demand for regional public transportation such as BART, AC Transit, and ferries would not experience an appreciable increase in ridership under 2035 Cumulative Conditions as compared to the 2035 Cumulative No Project. There would be an increase of four riders on regional public transportation which would not alter the total utilization of 85 percent. As such, the proposed project would have a *less than significant* effect on transit during operation.

Cumulative Construction Conditions. The proposed project's construction timeline may overlap with other projects under construction or implementation at the same time. Examples of the projects included in the SFCTA countywide travel demand forecast model are the TEP which may be implemented along Mission Street in the long term and the Van Ness Avenue Bus Rapid Transit project, although much of that project is focused north of Market Street, the San Francisco Better Market Street would most likely be completed by the start of construction for the proposed project but may slightly overlap. Other projects in the area that may have overlapping construction schedules would include the California Pacific Medical Center at Market Street and Van Ness Avenue, the residential project at 1400 Mission Street, the Central Subway project, and the 5M Project which is a 4-acre mixed use development between 5th Street, Mission Street and Howard Street. While the proposed project's construction may occur concurrently with the above-mentioned projects, it is not expected that the construction schedule of the proposed project would be in conflict with other projects in the area. The impact from construction traffic would be temporary and would not cause a permanent LOS change. Furthermore, the project sponsor and construction contractors would meet with the City's Transportation Advisory Staff Committee (TASC) to determine feasible measures to reduce traffic congestion, including effects on the transit system and pedestrian circulation impacts during construction of the proposed project. And finally, the project would implement **Improvement Measure TR-1a** and **Improvement Measure TR-1b** to further reduce any traffic impacts from construction. Therefore, the construction of the proposed project would have a *less than significant* cumulative impact.

Based on the information presented above, the proposed project would result in *less than significant* project-specific and cumulative environmental impacts related to transportation.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
6. 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"/>
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 an 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 airport or airstrip noise. As such topics 6e and 6f are not applicable and are not discussed further in this section.

Ambient noise levels in the vicinity of the project site are typical of noise levels in the Downtown area of San Francisco, which are dominated by noise produced by vehicular traffic, including trucks, cars, Muni buses, emergency vehicles, noise from land use activities, periodic temporary construction-related noise from nearby development, and street maintenance noise. Based on the citywide modeling of traffic noise volumes conducted by the San Francisco Department of Public Health (DPH),³⁷ the project site

³⁷ Traffic noise map presented on DPH website: <http://www.sfdph.org/dph/EN/Noise>. Assessed by Monica Pereira on 10/16/2012.

has an ambient noise level over 70 dBA (Ldn) along the front of the existing building due to noise from 9th and Mission Streets.

Site-specific noise measurements were conducted by the acoustical engineering firm, Illingworth & Rodkin, Inc for a 48-hour period from midday Wednesday, January 11, 2012 through midday Friday, January 13, 2012. Two short-term³⁸ and two long-term³⁹ noise measurements were taken. The first short-term measurement was taken at approximately 16 feet above grade approximately 40 feet from the center of 9th Street (ST-1). The second measurement (ST-2) was taken at approximately 16 feet above grade, approximately 80 feet from the center of Mission Street, down Washburn Street. The first long-term measurement was taken at approximately 12 feet above grade, approximately 28 feet from the center of Mission Street (LT-1). The second measurement was taken at approximately 16 feet above grade, approximately 80 feet from the center of Mission Street, down Washburn Street (LT-2). Existing noise levels were found to be approximately 77 – 78 dBA (Ldn).^{40, 41}

The analysis below presents noise impacts that could result from the development of the proposed project. Noise impacts evaluated in this section include: (1) impacts on nearby receptors from noise generated by the proposed project's mobile sources (e.g., motor vehicles) and new fixed, stationary sources (e.g., building mechanical systems, including a backup power generator and ventilation equipment); (2) noise and vibration impacts on nearby receptors from the project's construction activities; and (3) impacts on residential receptors on the project site from exposure to elevated ambient noise levels evaluated in terms of compatibility of proposed uses with performance standards in the *General Plan* Land Use Compatibility Guidelines and compliance with Title 24.

Impact NO-1: Operation of the proposed project would not generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies or result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (Less than Significant)

³⁸ 15 minutes in duration

³⁹ Over 24-hours in duration

⁴⁰ 1321 Mission Street Environmental Noise Assessment, Illingworth & Rodkin, Inc, May 23, 2012. This study is available, as part of Case No. 2012.0312E, for review at the San Francisco Planning Department, 1650 Mission Street, 4th Floor, San Francisco, CA.

⁴¹ Ldn is a measure of community noise that is defined as the equivalent noise level for a continuous 24-hour period with a 10-decibel penalty imposed during nighttime and morning hours (10:00 pm to 7:00 am).

The project site has been used for commercial activities since the 1940's. The proposed project would change the current use of the site to an 11-story, 160 unit residential building with ground floor commercial use. Operation of the proposed project would introduce additional noise sources to the area, including additional motor vehicle traffic and new mechanical systems, such as ventilation equipment and a backup generator. The project is expected to generate approximately 219 daily vehicle trips.⁴² Typically, traffic volumes must double to generate a noticeable increase (3 dBA) in noise levels. As described in **Section E. 5, Transportation and Circulation**, the project is not expected to generate a substantial increase in vehicle trips on area roadways, as the project's 219 daily trips would make up a small percentage of overall traffic volumes on Mission and 9th Streets. Vehicular traffic noise levels are not expected to increase measurably above existing levels as a result of the project (less than 1 dBA); therefore the impact from project-generated street traffic noise is *less than significant*.

The proposed project would include new mechanical equipment for utility services and infrastructure such as heating, ventilating, air-conditioning (HVAC) and a backup power generator that would produce operational noise on the project site. The proposed mechanical ventilation equipment would be located on the rooftop in the southernmost portion of the proposed building. The standby generator would be located adjacent to the ventilation equipment. Although emergency generators are intended only to be used in periods of power outages, monthly testing of the generator would be required. At its nearest point, the mechanical equipment would be located approximately 50 feet from the nearest existing residential land uses located at 10 Washburn Street and would be approximately 80 feet from the residences at 1328 Mission Street. Sensitive land uses located 80 feet or further away from the mechanical equipment would not be affected because traffic noise from the local roadways would be the dominant noise source.

Similar to all mechanical equipment that is installed on building rooftops, the project's rooftop-mounted equipment would be shielded by acoustical screens, with additional screening provided by parapet walls. Due to the shielding and the elevation difference between the equipment and the receptors, the nearest residential receptors on Washburn Street (as well as the more distant receptors) would not have a direct line-of-sight to the equipment.⁴³ Therefore, noise from the rooftop equipment would be substantially reduced at the nearby residential receptors.

⁴² 1321 Mission Street Trip Generation Estimates, DKS Associates, February 7, 2012. This study is available, as part of Case No. 2012.0312E, for review at the San Francisco Planning Department, 1650 Mission Street, 4th Floor, San Francisco, CA.

⁴³ Sound from a localized source spreads out as it travels away from the source, attenuating with distance according fundamental geometric relationships. A sound barrier provides additional attenuation over that which is achieved through distance loss alone by causing sound traveling from the source to the receiver to follow a non-direct diffracted path over the barrier. The area where this effect is greatest is called the

Furthermore, the operation of this equipment would be subject to Section 2909 of the City's Noise Ordinance (Article 29 of the San Francisco Police Code). As amended in November 2008, this section establishes a noise limit from mechanical sources, such as building equipment, specified as a certain noise level in excess of the ambient noise level at the property line: for noise generated by residential uses, the limit is 5 dBA in excess of ambient level. In addition, the Noise Ordinance provides for a separate fixed-source noise limit for residential interiors of 45 dBA at night and 55 dBA during the day and evening hours (until 10:00 PM). The project would comply with both limits by installing acoustical shielding around the rooftop equipment.

Occupancy of the proposed building by its residents and their day-to-day activities would also be expected to elevate the noise levels at the project site. However, the resulting noise levels would be typical of residential buildings in urban settings and the noise levels would not be discernible above the ambient noise levels in the project vicinity that are dominated by traffic noise. Additionally, the building manager would be responsible for ensuring that the facility complies with all applicable provisions of Section 2909 of the Noise Ordinance, which sets noise limits for residential property uses. For the reasons discussed above, operational noise from the proposed project would not expose nearby sensitive receptors to noise levels in excess of standards established in the *General Plan* and the Noise Ordinance. Project operation would also not result in a substantial permanent increase in noise levels in the project vicinity and the project's impact would be *less than significant*.

Impact NO-2: During construction, the proposed project would result in a substantial temporary or periodic increase in ambient noise levels and vibration in the project vicinity above levels existing without the project. (Less than Significant with Mitigation)

Demolition, excavation, and project construction would temporarily increase noise in the project vicinity. Construction would take about 18 months. During the majority of construction activity, noise levels would be above existing levels in the project area. Construction noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between noise source and listener, and presence or absence of barriers. **Table 7, Construction Equipment 50-foot Noise Emission Limits**, below, presents the maximum noise levels that would be experienced at 50 feet from where the particular piece of equipment is in use on the project site

'shadow zone' of the barrier and is related to the path length difference between the diffracted path (the distance the sound actually travels over the barrier) and the line-of-sight (direct) path between the source and the receiver.

during construction. Construction generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors. There are residential noise receptors in the vicinity of the project site. The closest noise-sensitive receptors⁴⁴ are approximately 50 feet to the south on Washburn Street and 80 feet to the north of the project site, on the north side of Mission Street.

Table 7
Construction Equipment 50-Foot Noise Emission Limits

Equipment Category	Lmax Level (dBA) ^{1,2}	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor ³	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous

⁴⁴ Noise-sensitive receptors: Hospitals, daycare facilities, hotels, residences, schools.

Equipment Category	Lmax Level (dBA) ^{1,2}	Impact/Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes:

1 Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

2 Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

3 Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

Construction noise is regulated by the San Francisco Noise Ordinance (Article 29 of the Police Code). The ordinance requires that noise levels from individual pieces of construction equipment, other than impact tools, not exceed 80 dBA at a distance of 100 feet from the source. Impact tools, such as jackhammers and impact wrenches, are not subject to the maximum noise limit but are required to have both intake and exhaust muffled to the satisfaction of the Director of Building Inspection (DBI). Section 2908 of the Ordinance prohibits construction work between 8:00 p.m. and 7:00 a.m., if noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special permit is authorized by the Department of Public Works (DPW) or the DBI.

As **Table 7** shows, only impact tools such as pile drivers and hoe rams generate noise levels that exceed or 80 dBA at 100 feet. However, as noted above, impact tools are not subject to the noise limit of 80 dBA at 100 feet. Furthermore, no pile driving or use of hoe rams is proposed for this project. Soldier piles that are placed in pre-drilled holes are proposed for portions of the foundations work. These soldier piles do not require the use of impact tools or vibratory hammers. Furthermore, all impact tools used on the site would be muffled to the satisfaction of DBI and the project would comply with the City's Noise Ordinance.

All other construction equipment with the exception of concrete saws would generate noise levels that would be 80 dBA or less at 100 feet. The project would involve a limited use of concrete saws during demolition and construction, especially on Washburn Street,

and during the time that these saws are in use, they would result in noise levels that exceed 80 dBA at 100 feet. This would represent a significant impact. Mitigation is proposed to reduce this impact. Construction noise is calculated to exceed the ambient noise level by 5 dBA at the property line of the project site. However, in compliance with the City's Noise Ordinance, no construction would take place between the hours of 8:00 p.m. and 7:00 a.m. Therefore the impact would be *less than significant*.

To address the significant construction noise impact associated with the use of concrete saws, **Mitigation Measure M-NO-2** is proposed. With implementation of this mitigation measure, the proposed project would have a *less than significant* impact.

Mitigation Measure MNO-2: Reduction of Construction Noise

The following measures would mitigate construction noise impacts on sensitive receptors:

- Construction equipment shall be properly maintained in accordance with manufacturers' specifications and shall be fitted with the best available noise suppression devices (e.g., mufflers, silencers, wraps). All impact tools shall be shrouded or shielded, and all intake and exhaust ports on power equipment shall be muffled or shielded.
- Construction equipment shall not idle for extended periods of time near noise-sensitive receptors.
- Stationary equipment (compressors, generators, and cement mixers) shall be located as far from sensitive receptors as feasible. Sound enclosures shall be used during noisy operations on-site.
- Temporary barriers (noise blankets or wood paneling) shall be placed around the construction site parcels and, to the extent feasible, they should break the line of sight from noise sensitive receptors to construction activities. For temporary sound blankets, the material shall be weather and abuse resistant, and shall exhibit superior hanging and tear strength with a surface weight of at least 1 pound per square foot. Placement, orientation, size, and density of acoustical barriers shall be reviewed and approved by a qualified acoustical consultant.
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall

identify a procedure for coordination with the adjacent noise sensitive receptors so that construction activities can be scheduled to minimize noise disturbance.

- Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.

Construction activities such as use of jackhammers, and other high-power or vibratory tools and rolling stock equipment such as tracked vehicles may potentially generate substantial vibration in the immediate vicinity of the site. Vibration caused by construction has the potential to damage structures and to interfere with the enjoyment of life.

Human perception of vibration varies depending on the individual, physical setting, and the type of vibration. Studies have shown that the threshold of perception for average persons is in the range of 0.2 to 0.3 mm/sec (0.008 to 0.012 inches/sec), peak particle velocity (ppv).⁴⁵ However, persons exposed to elevated ambient vibration levels such as in an urban environment may tolerate a higher vibration level. There is no consensus regarding what amount of vibration would cause structural damage. Structural damage can range from cosmetic to threatening the integrity of the building.

The proposed project would not involve the types of construction activities that would produce vibration levels that could damage adjacent structures. However, due to the proximity of residential land uses some construction activities may generate groundborne vibration that may be perceptible to the nearest residential receptor. The construction activities on the project site would comply with the City's Noise Ordinance and would not occur from 8:00 p.m. and 7:00 a.m. when the nearby residents are at rest. In addition, vibration-producing activities such as pile driving are not proposed as part of the project. The impact from groundborne vibrations would be *less than significant*.

⁴⁵ NCHRP Synthesis 218, Cliff J. Schexnayder and James Erzen, Transportation Research Board, 1996.

Impact NO-3: The proposed project's new residents would not be exposed to noise levels in excess of standards established in the local general plan. (Less than Significant)

As previously discussed, existing noise levels on the project site were found to be approximately 77 – 78 dBA (Ldn) and future noise levels are expected to remain similar to existing conditions. The proposed project would include the construction of 160 housing units, and therefore would introduce a new residential use to a developed urban neighborhood with elevated ambient noise levels. Vehicular traffic is the primary source of noise at the project site and exterior noise at the project site would continue to result primarily from vehicular traffic along Mission Street and 9th Street. As discussed in **Section E.5, Transportation and Circulation**, traffic on the main streets would not increase substantially in the future and activities at adjacent land uses are not expected to change significantly.

The Environmental Protection Element of the San Francisco General Plan contains Land Use Compatibility Guidelines for Community Noise.⁴⁶ 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 uses, the maximum satisfactory exterior noise level without incorporating noise insulation into a project is 60 dBA (Ldn),⁴⁷ while the guidelines indicate that residential development should be discouraged at exterior noise levels above 70 dBA (Ldn).⁴⁸ According to the City's review procedures, where exterior noise levels exceed 65 dBA (Ldn), a detailed analysis of noise reduction requirements is typically necessary before final review and approval, and new residences must include noise insulation features in their design. The proposed project would also be subject to noise insulation standards in Title 24 of the California Code of Regulations. Where residential units are proposed in areas subject to exterior noise levels greater than 60 dBA (Ldn), Title 24 requires designing the dwelling units to meet the 45 dBA (Ldn) interior noise level.

As noted above, exterior noise levels along the project's 9th Street and Mission Street facades are elevated. Because the exterior levels exceed 65 dBA (Ldn), the residential units nearest Mission Street and 9th Street would not meet the interior noise standard,

⁴⁶ City and County of San Francisco, Planning Department, San Francisco General Plan, Environmental Protection Element, Policy 11.1.

⁴⁷ Sound pressure is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 dB to 140 dB corresponding to the threshold of pain. Because sound pressure can vary by over one trillion times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. Owing to the variation in sensitivity of the human ear to various frequencies, sound is "weighted" to emphasize frequencies to which the ear is more sensitive, in a method known as A-weighting, and is expressed in units of A-weighted decibels (dBA).

⁴⁸ The guidelines are based on maintaining an interior noise level of interior noise standard of 45 dBA, Ldn, as required by the California Noise Insulation Standards in Title 24, Part 2 of the California Code of Regulations.

although the units away from Mission Street and 9th Street would achieve the interior noise standard. To ensure interior noise levels of the new residential use would not exceed Title 24 of the California Code of Regulations and *General Plan* Land Use Compatibility Guidelines threshold recommendations, as part of the design, the proposed project would achieve sufficient exterior-to-interior noise reduction feasible with currently available and commonly used building technology. This would include for example, installing such building materials as sound-rated windows, gypsum board, and batt and blown-in insulation. The DBI Inspection would review project plans for compliance with Title 24 noise standards. Compliance with Title 24 standards and with the City's General Plan would ensure that to project residents would not be exposed to interior noise levels in excess of applicable standards and the project would result in a *less than significant* impact.

The project also includes two areas that would serve as common outdoor use areas for the project's residents. The City of San Francisco considers residential land uses "satisfactory" in exterior noise environments up to 60 dBA (Ldn). The proposed common outdoor areas would be located on the building roof and on the second floor deck which would be in the southeastern portion of the building. The building roof areas would have windscreens that would be in the form of a panelized system, using a combination of cement composite panels and glass panels. Although designed to protect from wind, these panels would muffle sound coming from the street. No windscreen is proposed for the second floor deck. However the deck would be located away from 9th and Missions Streets and the building would surround the deck on three sides—blocking most of the sound from Mission and 9th Streets. Consequently, the noise levels for common outdoor areas are anticipated to be less than 60 dBA (Ldn). Therefore, the proposed outdoor use areas would be compatible with the exterior noise levels expected at the site.

For the reasons discussed above, the proposed project would not expose the project residents to interior or exterior noise levels that are in excess of standards established in the *General Plan* and Title 24. The impact would therefore be *less than significant*.

Impact C-NO-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative noise impacts. (Less than Significant)

As described in the cumulative population analysis on page 33, the proposed project in combination with other cumulative projects would not result in substantial population growth in the project vicinity. Because neither the proposed project nor the other

cumulative impacts in the vicinity are anticipated to result in a doubling of traffic volumes along nearby streets, the project would not contribute considerably to any cumulative traffic-related increases in ambient noise. Moreover, the proposed project's mechanical equipment and occupants would be required to comply with the Noise Ordinance and would therefore not be expected to contribute to any cumulative increases in the ambient noise as a result of the building's mechanical equipment or occupants. Similar to the proposed project, any rooftop mechanical equipment that would be a part of cumulative development would be reviewed by an acoustical specialist and the DBI to ensure that the City's Noise Ordinance standards are met. Therefore, the proposed project would not result in cumulatively considerable noise impacts, and cumulative noise impacts would be *less than significant*.

Of the seven reasonably foreseeable projects identified in **Section E-1 Land Use and Land Use Planning** within 2 blocks of the project site, one has already been constructed. The remaining six projects that may be constructed during the same timeframe as the proposed project include a residential and commercial development at 55 9th Street, a residential and commercial development at 1415 Mission Street, a residential and commercial development at 1400 Mission Street, a residential and commercial development at 1390 Market Street, a residential project at 1455 Market Street, and two new buildings at 1510-1540 Market Street. Construction activities in the vicinity of the project site, such as demolition, excavation, grading, or construction of these buildings in the area, would occur on a temporary and intermittent basis, similar to the project. All of these projects would also be required to comply with the Noise Ordinance which requires each construction project not to result in noise levels that exceed 80 dBA at 100 feet and not increase the ambient noise level by 5 dBA at the property line of the project site, and in the event that it would be exceeded, to comply with the City's Noise Ordinance by limiting construction to take place between the hours of 8:00 p.m. and 7:00 a.m. Project construction-related noise would be regulated by the Noise Ordinance and implementation of **Mitigation Measure M-NO-2**. As such, construction noise effects associated with the proposed project would be temporary and are not anticipated to combine with construction noise from other projects in the area to result in a significant cumulative impact. In addition, the period of the loudest construction activity is generally a small portion of the overall construction period, which reduces the potential for overlap during the noisiest construction. The proposed project, in conjunction with other proposed projects, would result in *less than significant* cumulative construction noise impacts.

Therefore, the proposed project would result in *less than significant* cumulative effects related to operational and construction noise.

Based on the discussion above, with implementation of **Mitigation Measure M-NO-2**, the proposed project would have *less than significant* project-specific and cumulative effects on noise.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
7. 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"/>
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

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 an applicable air quality plan.

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 attainment⁴⁹ or unclassified for most criteria pollutants with the exception of ozone, respirable particulate matter (PM_{2.5}), and fine particulate matter (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.⁵⁰

Land use projects may contribute to regional criteria air pollutants during the construction and operational phases of a project. **Table 8 Air Quality Thresholds of Significance for Criteria Air Pollutants** 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

⁴⁹ "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.

⁵⁰ Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2011, page 2-1.

standard, contribute substantially to an air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants within the SFBAAB.

Table 8
Air Quality Thresholds of Significance for
Criteria Air Pollutants

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82	82	15
PM _{2.5}	54	54	10
Fugitive Dust	Construction Dust Ordinance 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 (PM₁₀ and PM_{2.5}).⁵¹ Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides nitrogen (NO_x). The BAAQMD is the primary regulatory agency in the SFBAAB charged with ensuring that the region attains applicable federal and state ambient air quality standards. The thresholds in the table above for a project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, are based on the state and federal Clean Air Acts (CAA) emissions limits for stationary sources. The federal New Source Review (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. Similarly, 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).⁵² These levels represent emissions at or below which new sources are not

⁵¹ 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.

⁵² BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*. October 2009, p. 17.

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 also produce 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 development 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. Because construction activities are temporary in nature, only the average daily thresholds are applicable to construction-phase emissions.

Particulate Matter (PM₁₀ and PM_{2.5}). The BAAQMD has not established an offset limit for PM_{2.5} and the current federal Prevention of Significant Deterioration (PSD) offset limit of 100 tons per year for PM₁₀ is too high and would not be an appropriate significance threshold for the SFBAAB considering its nonattainment status relative to PM₁₀. However, the emissions limit provided for in the federal NSR for stationary sources that emit criteria air pollutants in areas that are currently designated as nonattainment, is an appropriate significance threshold. For PM₁₀ and PM_{2.5}, the emissions limits under NSR are 15 tons per year (82 lbs. per day) and 10 tons per year (54 lbs. per day), respectively. These emissions limits represent levels at which a source is not expected to have an impact on air quality.⁵³ 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 development project. Those projects that result in emissions below the NSR emissions limits would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in PM₁₀ and PM_{2.5} emissions. Because construction activities are temporary in nature, only the average daily thresholds are applicable to construction-phase emissions.

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 dust.⁵⁴ Individual measures have been

53 BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*. October 2009, p. 16.

54 Western Regional Air Partnership. 2006. WRAP Fugitive Dust Handbook. September 7, 2006. This document is available online at http://www.wrapair.org/forums/dej/f/fdh/content/FDHandbook_Rev_06.pdf, Accessed February 16, 2012.

shown to reduce fugitive dust by anywhere from 30 percent to 90 percent.⁵⁵ The BAAQMD has identified a number of BMPs to control fugitive dust emissions from construction activities.⁵⁶ The City's Construction Dust Control Ordinance 176.08 requires a number of measures to control fugitive dust. The construction dust control ordinance has a mandate for "no visible dust." The BMPs employed in compliance with the City's Construction Dust Control Ordinance is an effective strategy for controlling fugitive dust. A project that implements the BAAQMD-recommended mitigation measures and complies with the City's ordinance will have a less than significant impact related to fugitive dust during construction.

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 of short-term) adverse effects to human health, including carcinogenic effects. A TAC is defined in California Health and Safety Code §39655 as an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. Human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

Unlike criteria air pollutants, TACs do not have ambient air quality standards but are regulated by the BAAQMD using a risk-based approach. This approach uses a health risk assessment 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.⁵⁷

⁵⁵ BAAQMD, Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance, October 2009, p. 27.

⁵⁶ BAAQMD, CEQA Air Quality Guidelines, May 2011. This document is available online at <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>, Accessed February 27, 2012.

⁵⁷ 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.

Vehicle tailpipe emissions contain numerous TACs, including benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, naphthalene, and diesel exhaust.⁵⁸ Engine exhaust, from diesel, gasoline, and other combustion engines, is a complex mixture of particles and gases, with collective and individual toxicological characteristics. While each constituent pollutant in engine exhaust may have a unique toxicological profile, health effects have been associated with proximity, or exposure, to vehicle-related pollutants collectively as a mixture.⁵⁹ 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.⁶⁰ In addition to PM^{2.5}, diesel particulate matter (DPM) is also of concern. The ARB identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans.⁶¹ Mobile sources such as trucks and buses are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled roadways. 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.

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 for other land uses. 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.

In an effort to identify areas of San Francisco most adversely affected by sources of TACs, San Francisco partnered with the BAAQMD to inventory and assess air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed "air pollution hot spots," were identified based on two health-protective criteria: (1) excess cancer risk from the contribution of emissions from all modeled sources greater than 100 per 1 million population, and/or (2) cumulative PM^{2.5} concentrations greater than 10 micrograms per cubic meter (µg/m³).

⁵⁸ San Francisco Department of Public Health (SFDPH), *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008.

⁵⁹ Delfino R.J., 2002, "Epidemiologic evidence for asthma and exposure to air toxics: linkages between occupational, indoor, and community air pollution research," *Environmental Health Perspectives*, 110(S4):573-589.

⁶⁰ SFDPH, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008.

⁶¹ California Air Resources Board (ARB), Fact Sheet, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," October 1998.

Excess Cancer Risk. The above 100 per 1 million persons (100 excess cancer risk) criterion is based on United States Environmental Protection Agency (USEPA) guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.⁶² As described by the BAAQMD, the USEPA considers a cancer risk of 100 per 1 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,⁶³ 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 1 million and (2) limiting to no higher than approximately one in 10 thousand [100 in 1 million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years.” The 100 per 1 million 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.⁶⁴

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 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. Air pollution hot spots for San Francisco are 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 error bounds in emissions modeling programs.

Land use projects within these air pollution hot spots require special consideration to determine whether the project’s activities would expose sensitive receptors to substantial air pollutant concentrations or add emissions to areas already adversely affected by poor air quality.

Project-related air quality impacts fall into two categories: short-term impacts due to construction and long term impacts due to project operation. Both categories of impacts are discussed below.

⁶² BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, page 67.

⁶³ 54 Federal Register 38044, September 14, 1989.

⁶⁴ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, page 67.

Construction Air Quality Impacts

Construction activities (short-term) typically result in emissions of fugitive dust, criteria air pollutants, and DPM. Emissions of criteria pollutants and DPM are primarily a result of the combustion of fuel from on-road and off-road vehicles. However, ROGs are also emitted from activities that involve painting or other types of architectural coatings or asphalt paving activities. The proposed project would demolish an existing single story building and construct an 11-story, mixed-use building. During the project's approximately 18 month construction period, demolition, grading and construction activities would have the potential to result in fugitive dust emissions and criteria air pollutants, and DPM emissions. Impacts from these emissions are discussed below

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)

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 California Air Resources Board, reducing ambient particulate matter from 1998-2000 levels to natural background concentrations in San Francisco would prevent over 200 premature deaths.

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 to add to particulate matter in 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 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.

The following practices to control construction dust on the site or other practices that result in equivalent dust control 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. Reclaimed water must be used if required by Article 21, Section 1100 et seq. of the San Francisco Public Works Code. If not required, reclaimed water should be used whenever possible. Contractors shall provide as much water as necessary to control dust (without creating run-off in any area of land clearing, and/or earth movement). During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 square feet of excavated materials, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10 millimeter (0.01 inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques.

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 8** 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 proposed 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

greenfield⁶⁵ 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. For projects that are mixed-use, infill, and/or proximate to transit service and local services, emissions would be expected to be less than the greenfield-type project that the screening criteria are based upon.

The proposed project includes a total building area of approximately 98,245 gross square feet (gsf), including 160 dwelling units and 3,359 sf of ground floor commercial space. According to the screening table, the threshold for construction would be 249 dwelling units for an apartment, high-rise. The criteria also indicate that a convenience market would have to be over 277,000 sf to exceed the 2010 Guidelines thresholds.⁶⁶ Thus, quantification of construction-related criteria air pollutant emissions is not required, and the proposed project's construction activities would not exceed any of the significance thresholds for criteria air pollutants, and would result in a *less than significant* construction criteria air pollutant impact.

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)

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.⁶⁷ 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.⁶⁸ For example, revised estimates of particulate matter (PM) emissions (of which DPM is a major component) for the SFBAAB for the year 2010 has decreased by 83 percent from estimates of 2010 emissions.⁶⁹

⁶⁵ A greenfield site refers to agricultural or forest land or an undeveloped site proposed for commercial, residential, or industrial projects.

⁶⁶ Bay Area Air Quality Management District (BAAQMD), California Environmental Quality Act Air Quality Guidelines, Table 3-1, p. 3-2, June 2010 updated March 2011.

⁶⁷ 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.

⁶⁸ 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.

⁶⁹ 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.

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.⁷⁰

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.⁷¹ Furthermore, California regulations limit maximum idling times to five minutes, which further reduces public exposure to DPM emissions.⁷²

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."⁷³

Therefore, project-level analyses of construction activities have a tendency to produce overestimated assessments of long-term health risks. However, within air pollution hot spots, as discussed above, additional construction activity may adversely affect populations that are already at a higher risk for adverse long-term health risks from

⁷⁰ 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.

⁷¹ USEPA, "Clean Air Nonroad Diesel Rule: Fact Sheet," May 2004.

⁷² California Code of Regulations, Title 13, Division 3, § 2485.

⁷³ BAAQMD, *CEQA Air Quality Guidelines*, May 2011, page 8-6.

existing sources of air pollution. The proposed project would involve construction activities for the approximate 18-month construction phase, including the use of heavy-duty diesel vehicles and equipment, which emit DPM. Because project construction would generate additional DPM emissions in an area identified by the City as a hot spot, the impact would be considered potentially significant. However, with **Mitigation Measure M-AQ-2** the impact from construction-phase TACs would be less than significant.

Mitigation Measure M-AQ-2 – Construction Emissions Minimization

The project sponsor will be required to comply with the following measures to reduce potential health risks to nearby sensitive receptors during construction:

A. *Construction Emissions Minimization Plan.* Prior to construction, the project sponsor shall submit a Construction Emissions Minimization Plan (Plan) to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist prior to the commencement of construction activities. The Plan shall detail project compliance with the following 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 meet the following requirements:

(a) Where access to alternative sources of power is available, portable diesel engines shall be prohibited;

(b) All off-road equipment shall have:

(i) Engines that meet or exceed either USEPA or ARB Tier 2 off-road emission standards, and

(ii) Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS).⁷⁴

(c) Exceptions:

(i) Exceptions to A(1)(a) *may* be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that an alternative source of power is limited or infeasible

⁷⁴ Equipment with engines meeting Tier 4 Interim or Tier 4 Final emission standards automatically meet this requirement, therefore a VDECS would not be required.

at the project site and that the requirements of this exception provision apply. Under this circumstance, the sponsor shall submit documentation of compliance with A(1)(b) for onsite power generation.

- (ii) Exceptions to A(1)(b)(ii) *may* be granted if the project sponsor has submitted information provide evidence to the satisfaction of the ERO that a particular piece of equipment or vehicle with an ARB Level 3 VDECS is: (1) technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use diesel vehicles or engines that are not retrofitted with an ARB Level 3 VDECS and the sponsor has submitted documentation to the ERO that the requirements of this exception provision apply. If granted an exception to A(1)(b)(ii), the project sponsor must comply with the requirements of A(1)(c)(iii).
- (iii) If an exception is granted pursuant to A(1)(c)(ii),the project sponsor shall provide the next cleanest piece of off-road equipment as provided by the step down schedules in **Table 9** below.

Table 9
Off-Road Equipment Compliance Step Down Schedule*

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

* *How to use the table: For example, if the requirements of (A)(1)(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 2, then Compliance Alternative 3 would need to be met.*

** *Alternative fuels are not a VDECS*

- 2. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than *two* minutes, except as provided in

exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, and Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.

3. The project sponsor shall require that construction operator properly maintain and tune equipment in accordance with manufacturer specifications.
 4. 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. Off-road equipment descriptions and information may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For the VDECS installed: 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, reporting shall indicate the type of alternative fuel being used.
 5. The Plan shall be kept on-site and available for review by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the Plan and a way to request a copy of the Plan. The project sponsor shall provide copies of the Plan as requested.
- B. *Reporting.* Monthly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include actual amount of alternative fuel used.

Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include actual amount of alternative fuel used.

- C. *Certification Statement and On-site Requirements.* Prior to the commencement of construction activities, the project sponsor must certify (1) Compliance with the

Plan, and (2) All applicable requirements of the Plan have been incorporated into contract specifications.

While the emissions reductions from limiting idling, educating workers and the public and properly maintaining equipment is difficult to quantify, other measures, specifically the requirement for equipment with Tier 2 engines and Level 3 VDECSs can reduce construction emissions by 89 to 94 percent compared to equipment with engines meeting no emission standards and without a VDECS. 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 to nearby sensitive receptors to a *less than significant* level.

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 operational air quality impacts of the proposed project are discussed below.

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 160 dwelling units and 3,359 sf of ground floor commercial space. The increase in vehicle trips of 219 vehicles per day. According to the screening table for operational criteria pollutants, the applicable threshold would be 510 dwelling units for *apartment, high-rise*, and 5,000 sf for *convenience market*.⁷⁵ Thus,

⁷⁵ Ibid

quantification of project-generated criteria air pollutant emissions is not required, and the emissions from the operation of the proposed project would not exceed any of the significance thresholds for criteria air pollutants, and the proposed project would result in *less than significant* impact with respect to criteria air pollutants.

Impact AQ-4: The proposed project would expose project site sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)

As discussed above, San Francisco, in partnership with BAAQMD, has modeled and assessed air pollutant impacts from mobile, stationary and area sources within the City. This assessment has resulted in the identification of air pollutant hot spots, or areas within the City that deserve special attention when siting uses that either emit TACs or uses that are considered sensitive to air pollution. The closest sensitive land uses are approximately residences located 50 feet to the south on Washburn Street and 80 feet to the north of the project site, on the north side of Mission Street. There are additional sensitive land uses along Mission Street and 9th Street. The project proposes an 11-story, 160 unit mixed-use building, which would qualify as a sensitive land use.

Sources of Toxic Air Contaminants

Vehicle Trips. Individual projects result in emissions of TACs 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 219 daily vehicle trips would be well below this level, 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.

On-Site Diesel Generator. The proposed project would also include a 750 kilowatt (kW) standby 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 10 per one million population and require any source that would result in an excess cancer risk greater than one per one million population to install Best Available Control Technology for Toxics (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. Therefore, the following mitigation measure would apply to the proposed project.

Mitigation Measure M-AQ-4a. Best Available Control Technology for Diesel Generators

All diesel generators shall have engines that (1) meet Tier 4 Final or Tier 4 Interim emission standards, or (2) meet Tier 2 emission standards and are equipped with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS).

Implementation of **Mitigation Measure M-AQ-4a** would reduce 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, with implementation of **Mitigation Measure M-AQ-4a** the proposed project would result in a *less than significant* impact with respect to exposing sensitive receptors to substantial levels of air pollution.

Siting Sensitive Land Uses

The proposed project would include development of 160 residential dwelling units and is considered a sensitive land use for purposes of air quality evaluation. As discussed above, the project site is located in an area that experiences higher levels of air pollution. The proposed project therefore would have the potential to expose sensitive receptors to substantial concentrations of air pollutants. The following mitigation measure would be applicable to the proposed project and would require the project sponsor install a filtered air supply system capable of removing 80 percent of outdoor particulates from indoor air.

Mitigation Measure M-AQ-4b: Air Filtration and Ventilation Requirements for Sensitive Land Uses

Air Filtration and Ventilation Requirements for Sensitive Land Uses. Prior to receipt of any building permit, the project sponsor shall submit a ventilation plan for the proposed building(s). The ventilation plan shall show that the building ventilation system removes at least 80 percent of the outdoor PM_{2.5} concentrations from habitable areas and be designed by an engineer certified by ASHRAE, who shall provide a written report documenting that the system meets the 80 percent performance standard identified in this measure and offers the

best available technology to minimize outdoor to indoor transmission of air pollution.

Maintenance Plan. Prior to receipt of any building permit, the project sponsor shall present a plan that ensures ongoing maintenance for the ventilation and filtration systems.

Disclosure to buyers and renters. The project sponsor shall also ensure the disclosure to buyers (and renters) that the building is located in an area with existing sources of air pollution and as such, the building includes an air filtration and ventilation system designed to remove 80 percent of outdoor particulate matter and shall inform occupants of the proper use of the installed air filtration system.

With implementation of **Mitigation Measures M-AQ-4a** and **M-AQ-4b**, the proposed project would result in a *less than significant* impact with respect to exposing sensitive receptors to substantial levels of air pollution.

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.

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 would be consistent with energy and climate control measures as discussed in **Section E.8 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 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 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 applicable to the proposed project. By complying with these applicable requirements, the project would include relevant transportation control measures specified by the *2010 Clean Air Plan*.

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 one car-share parking space, and eight bike racks to 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 avoid disrupting or hindering 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. None of these sources are present in the project vicinity. Sources of odors near the project site observed during the site visit include a few cafes and restaurants. However, these would not result in objectionable odors. Therefore the project would not expose the new residents to any objectionable odors. Furthermore, the proposed project is a mixed-use, largely residential building and would not house activities that would subject residents of neighboring buildings to objectionable odors.

During the construction of the proposed project, diesel exhaust from construction equipment would generate some odors. However, construction-related odors would be temporary and would not persist upon project completion. Therefore, the project would not create objectionable odors and the odor impacts would be *less than significant*.

Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development 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.⁷⁶ 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.

Although the project would add 160 new residential units and ground floor commercial, which would result in 219 additional vehicle trips within areas of the City that are already adversely affected by poor air quality, the proposed project would include **Mitigation Measure M-AQ-2**, which could reduce construction period emissions by as much as 94 percent, **Mitigation Measure M-AQ-4a** which requires best available control technology to limit emissions from the project's emergency back-up generator, and **Mitigation Measure M-AQ-4b** which requires that the building be designed to reduce outdoor infiltration of fine particulate matter indoors by 80 percent. Compliance with

⁷⁶ BAAQMD, *CEQA Air Quality Guidelines*, May 2011, page 2-1.

these mitigation measures would ensure that cumulative air quality impacts would be reduced to *less than significant*.

Based on the information presented above, with implementation of **Mitigation Measures M-AQ-4a** and **M-AQ-4b**, the proposed project would result in *less than significant* project-specific and cumulative environmental impacts related to air quality.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
8. 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"/>

Environmental Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs has been implicated as the driving force for global climate change. The primary GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor.

Individual projects contribute to the cumulative effects of climate change by emitting GHGs during demolition, construction, and operational phases. While the presence of the primary GHGs in the atmosphere is naturally occurring, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) are largely emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere. Emissions of carbon dioxide are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Black carbon has recently emerged as a major contributor to global climate change, possibly second only to CO₂. Black carbon is produced naturally and by human activities

as a result of the incomplete combustion of fossil fuels, biofuels and biomass.⁷⁷ N₂O is a byproduct of various industrial processes and has a number of uses, including use as an anesthetic and as an aerosol propellant. Other GHGs include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and are generated in certain industrial processes. GHGs are typically reported in “carbon dioxide-equivalent” measures (CO₂E).⁷⁸

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Many impacts resulting from climate change, including increased fires, floods, severe storms and heat waves, are occurring already and will only become more frequent and more costly.⁷⁹ Secondary effects of climate change are likely to include a global rise in sea level, impacts to agriculture, the state’s electricity system, and native freshwater fish ecosystems, an increase in the vulnerability of levees in the Sacramento-San Joaquin Delta, changes in disease vectors, and changes in habitat and biodiversity.^{80,81}

The California Air Resources Board (ARB) estimated that in 2009 California produced about 457 million gross metric tons of CO₂E (MMTCO₂E).⁸² The ARB found that transportation is the source of 38 percent of the state’s GHG emissions, followed by electricity generation (both in-state generation and imported electricity) at 23 percent and industrial sources at 18 percent. Commercial and residential fuel use (primarily for heating) accounted for 9 percent of GHG emissions.⁸³ In the Bay Area, the transportation (on-road motor vehicles, off-highway mobile sources, and aircraft) and industrial/commercial sectors were the two largest sources of GHG emissions, each accounting for approximately 36 percent of the Bay Area’s 95.8 MMTCO₂E emitted in

⁷⁷ Center for Climate and Energy Solutions. *What is Black Carbon?*, April 2010. Available online at: <http://www.c2es.org/docUploads/what-is-black-carbon.pdf>. Accessed September 27, 2012.

⁷⁸ Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in “carbon dioxide-equivalents,” which present a weighted average based on each gas’s heat absorption (or “global warming”) potential.

⁷⁹ California Climate Change Portal. Available online at: <http://www.climatechange.ca.gov>. Accessed September 25, 2012.

⁸⁰ California Climate Change Portal. Available online at: <http://www.climatechange.ca.gov/>. Accessed September 25, 2012.

⁸¹ California Energy Commission. California Climate Change Center. *Our Changing Climate 2012*. Available online at: <http://www.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf>. Accessed August 21, 2012.

⁸² California Air Resources Board (ARB). *California Greenhouse Gas Inventory for 2000-2009—by Category as Defined in the Scoping Plan*. Available online at: http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-09_2011-10-26.pdf. Accessed August 21, 2012.

⁸³ ARB. *California Greenhouse Gas Inventory for 2000-2009—by Category as Defined in the Scoping Plan*. Available online at: http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-09_2011-10-26.pdf. Accessed August 21, 2012.

2007.⁸⁴ Electricity generation accounts for approximately 16 percent of the Bay Area's GHG emissions followed by residential fuel usage at seven percent, off-road equipment at 3 percent and agriculture at one percent.⁸⁵

Regulatory Setting

In 2005, in recognition of California's vulnerability to the effects of climate change, then-Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 MMTCO₂E); by 2020, reduce emissions to 1990 levels (estimated at 427 MMTCO₂E); and by 2050 reduce statewide GHG emissions to 80 percent below 1990 levels (approximately 85 MMTCO₂E).

In response, the California legislature passed Assembly Bill No. 32 in 2006 (California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires ARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction from forecast emission levels).⁸⁶

Pursuant to AB 32, ARB adopted a Scoping Plan in December 2008, outlining measures to meet the 2020 GHG reduction limits. The Scoping Plan is the State's overarching plan for addressing climate change. In order to meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business as usual emissions levels, or about 15 percent from 2008 levels.⁸⁷ The Scoping Plan estimates a reduction of 174 million metric tons of CO₂E (MMTCO₂E) (about 191 million US tons) from the transportation, energy, agriculture, forestry, and high global warming potential sectors, see **Table 10, GHG Reductions from the AB 32 Scoping Plan Sectors**, below. ARB has

⁸⁴ Bay Area Air Quality Management District (BAAQMD). *Source Inventory of Bay Area Greenhouse Gas Emissions: Base Year 2007*, February 2010. Available online at: http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/Emission%20Inventory/regionalinventory2007_2_10.ashx. Accessed August 21, 2012.

⁸⁵ BAAQMD. *Source Inventory of Bay Area Greenhouse Gas Emissions: Base Year 2007*, Updated: February 2010. Available online at: http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/Emission%20Inventory/regionalinventory2007_2_10.ashx. Accessed August 21, 2012.

⁸⁶ Governor's Office of Planning and Research (OPR). Technical Advisory - CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, June 19, 2008. Available online at: <http://opr.ca.gov/docs/june08-ceqa.pdf>. Accessed August 21, 2012.

⁸⁷ ARB. California's Climate Plan: Fact Sheet. Available online at: http://www.arb.ca.gov/cc/facts/scoping_plan_fs.pdf. Accessed August 21, 2012.

identified an implementation timeline for the GHG reduction strategies in the Scoping Plan.⁸⁸

Table 10
GHG Reductions from the AB 32 Scoping Plan Sectors^{89,90}

GHG Reduction Measures by Sector		GHG Reductions (MMTCO ₂ E)
Transportation Sector		62.3
Electricity and Natural Gas		49.7
Industry		1.4
Landfill Methane Control Measure (Discrete Early Action)		1.0
Forestry		5.0
High Global Warming Potential GHGs		20.2
Additional Reductions Needed to Achieve the GHG Cap		34.4
Total		174.0
Other Recommended Measures		
Government Operations		1.0 - 2.0
Methane Capture at Large Dairies		1.0
Water		4.8
Green Buildings		26.0
High Recycling/Zero Waste		9.0
<ul style="list-style-type: none"> • Commercial Recycling • Composting • Anaerobic Digestion • Extended Producer Responsibility • Environmentally Preferable Purchasing 		
Total		41.8 - 42.8

The AB 32 Scoping Plan recommendations are intended to curb projected business-as-usual growth in GHG emissions and reduce those emissions to 1990 levels. Therefore, meeting AB 32 GHG reduction goals would result in an overall annual net decrease in GHGs as compared to current levels and accounts for projected increases in emissions resulting from anticipated growth.

⁸⁸ ARB. Assembly Bill 32: Global Warming Solutions Act. Available online at: <http://www.arb.ca.gov/cc/ab32/ab32.htm/>. Accessed August 21, 2012.

⁸⁹ ARB. Climate Change Scoping Plan, December 2008. Available online at: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed August 21, 2012.

⁹⁰ ARB. California's Climate Plan: Fact Sheet. Available online at: http://www.arb.ca.gov/cc/facts/scoping_plan_fs.pdf. Accessed August 21, 2012.

The Scoping Plan also relies on the requirements of Senate Bill 375 (SB 375) to implement the carbon emission reductions anticipated from land use decisions. SB 375 was enacted to align local land use and transportation planning to further achieve the state's GHG reduction goals. SB 375 requires regional transportation plans, developed by Metropolitan Planning Organizations (MPOs), to incorporate a "sustainable communities strategy" in their regional transportation plans (RTPs) that would achieve GHG emission reduction targets set by ARB. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. SB 375 would be implemented over the next several years and the Bay Area Metropolitan Transportation Commission's 2013 RTP, Plan Bay Area, would be its first plan subject to SB 375.

AB 32 further anticipates that local government actions will result in reduced GHG emissions. ARB has identified a GHG reduction target of 15 percent from current levels for local governments themselves and noted that successful implementation of the Scoping Plan relies on local governments' land use planning and urban growth decisions because local governments have the primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions.⁹¹ The BAAQMD has conducted an analysis of the effectiveness of the region in meeting AB 32 goals from the actions outlined in the Scoping Plan and determined that in order for the Bay Area to meet AB 32 GHG reduction goals, the Bay Area would need to achieve an additional 2.3 percent reduction in GHG emissions from the land use driven sector.⁹²

Senate Bill 97 (SB 97) required the Office of Planning and Research (OPR) to amend the *State CEQA Guidelines* to address the feasible mitigation of GHG emissions or the effects of GHGs. In response, OPR amended the *State CEQA Guidelines* to provide guidance for analyzing GHG emissions. Among other changes to the *State CEQA Guidelines*, the amendments added a new section to the CEQA Checklist (*State CEQA Guidelines* Appendix G) to address questions regarding the project's potential to emit GHGs.

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine county San Francisco Bay Area Air Basin (SFBAAB). The BAAQMD recommends that local agencies adopt a Greenhouse Gas Reduction Strategy consistent with AB 32 goals and that subsequent projects be reviewed to determine the significance of their GHG emissions based on the degree to

⁹¹ ARB. Climate Change Scoping Plan. December 2008. Available online at: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed August 21, 2012.

⁹² BAAQMD. *California Environmental Quality Act Guidelines Update, Proposed Thresholds of Significance*, December 2009. Available online at: <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Proposed%20Thresholds%20of%20Significance%20Dec%207%202009.ashx>. Accessed September 25, 2012.

which that project complies with a Greenhouse Gas Reduction Strategy.⁹³ As described below, this recommendation is consistent with the approach to analyzing GHG emissions outlined in the *State CEQA Guidelines*.

At a local level, the City has developed a number of plans and programs to reduce the City's contribution to global climate change. San Francisco's GHG reduction goals, as outlined in the 2008 Greenhouse Gas Reduction ordinance are as follows: by 2008, determine the City's GHG emissions for the year 1990, the baseline level with reference to which target reductions are set; by 2017, reduce GHG emissions by 25 percent below 1990 levels; by 2025, reduce GHG emissions by 40 percent below 1990 levels; and finally by 2050, reduce GHG emissions by 80 percent below 1990 levels. San Francisco's Greenhouse Gas Reduction Strategy documents the City's actions to pursue cleaner energy, energy conservation, alternative transportation and solid waste policies. As identified in the Greenhouse Gas Reduction Strategy, the City has implemented a number of mandatory requirements and incentives that have measurably reduced GHG emissions including, but not limited to, increasing the energy efficiency of new and existing buildings, installation of solar panels on building roofs, implementation of a green building strategy, adoption of a zero waste strategy, a construction and demolition debris recovery ordinance, a solar energy generation subsidy, incorporation of alternative fuel vehicles in the City's transportation fleet (including buses), and a mandatory recycling and composting ordinance. The strategy also identified 42 new species regulations for new development that would reduce a project's GHG emissions.

The Greenhouse Gas Reduction Strategy concludes that San Francisco's policies and programs have resulted in a reduction in GHG emissions below 1990 levels, exceeding statewide AB 32 GHG reduction goals. As reported, San Francisco's communitywide 1990 GHG emissions were approximately 6.15 MMTCO₂E. A recent third-party verification of the City's 2010 communitywide and municipal emissions inventory has confirmed that San Francisco has reduced its GHG emissions to 5.26 MMTCO₂E, representing a 14.5 percent reduction in GHG emissions below 1990 levels.^{94,95}

Approach to Analysis

⁹³ BAAQMD. *California Environmental Quality Act Air Quality Guidelines*, May 2012. Available online at: http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en. Accessed September 25, 2012.

⁹⁴ ICF International. "Technical Review of the 2010 Community-wide GHG Inventory for City and County of San Francisco." *Memorandum from ICF International to San Francisco Department of the Environment*, April 10, 2012. Available online at: <http://www.sfenvironment.org/download/community-greenhouse-gas-inventory-3rd-party-verification-memo>. Accessed September 27, 2012.

⁹⁵ ICF International. "Technical Review of San Francisco's 2010 Municipal GHG Inventory." *Memorandum from ICF International to San Francisco Department of the Environment*, May 8, 2012. Available online at: <http://www.sfenvironment.org/download/third-party-verification-of-san-franciscos-2010-municipal-ghg-inventory>. Accessed September 27, 2012.

In compliance with SB 97, OPR amended the *State CEQA Guidelines* to address the feasible mitigation of GHG emissions or the effects of GHGs. Among other changes to the *State CEQA Guidelines*, the amendments added a new section to the CEQA Checklist (*State CEQA Guidelines* Appendix G) to address questions regarding the project's potential to emit GHGs. The potential for a project to result in significant GHG emissions which contribute to the cumulative effects global climate change is based on the *State CEQA Guidelines* and CEQA Checklist, as amended by SB 97, and is determined by an assessment of the project's compliance with local and state plans, policies and regulations adopted for the purpose of reducing the cumulative effects of climate change. GHG emissions are analyzed in the context of their contribution to the cumulative effects of climate change because a single land use project could not generate enough GHG emissions to noticeably change the global average temperature. *State CEQA Guidelines* Sections 15064.4 and 15183.5 address the analysis and determination of significant impacts from a proposed project's GHG emissions. *State 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 greenhouse gases and describes the required contents of such a plan. As discussed above, San Francisco has prepared its own Greenhouse Gas Reduction Strategy, demonstrating that San Francisco's policies and programs have collectively reduced communitywide GHG emissions to below 1990 levels, meeting GHG reduction goals outlined in AB 32. The City is also well on its way to meeting the long-term GHG reduction goal of reducing emissions 80 percent below 1990 levels by 2050. Chapter 1 of the City's *Strategies to Address Greenhouse Gas Emission* (the Greenhouse Gas Reduction Strategy) describes how the strategy meets the requirements of *State CEQA Guidelines* Section 15183.5. The BAAQMD has reviewed San Francisco's Greenhouse Gas Reduction Strategy, concluding that "Aggressive GHG reduction targets and comprehensive strategies like San Francisco's help the Bay Area move toward reaching the state's AB 32 goals, and also serve as a model from which other communities can learn."⁹⁶

With respect to *State CEQA Guidelines* Section 15064.4(b), the factors to be considered in making a significance determination include: (1) the extent to which GHG emissions would increase or decrease as a result of the proposed project; (2) whether or not a proposed project exceeds a threshold that the lead agency determines applies to the project; and finally (3) demonstrating compliance with plans and regulations adopted for the purpose of reducing or mitigating GHG emissions.

The GHG analysis provided below includes a qualitative assessment of GHG emissions that would result from a proposed project, including emissions from an increase in

⁹⁶ BAAQMD. *Letter from J. Roggenkamp, BAAQMD, to B. Wycko, San Francisco Planning Department*, October 28, 2010. Available online at: http://www.sf-planning.org/ftp/files/MEA/GHG-Reduction_Letter.pdf. Accessed September 24, 2012.

vehicle trips, natural gas combustion, and/or electricity use among other things. Consistent with the *State CEQA Guidelines* and BAAQMD recommendations for analyzing GHG emissions, the significance standard applied to GHG emissions generated during project construction and operational phases is based on whether the project complies with a plan for the reduction of GHG emissions. The City's Greenhouse Gas Reduction Strategy is the City's overarching plan documenting the policies, programs and regulations that the City implements towards reducing municipal and communitywide GHG emissions. In particular, San Francisco implements 42 specific regulations that reduce GHG emissions which are applied to projects within the City. Projects that comply with the Greenhouse Gas Reduction Strategy would not result in a substantial increase in GHGs, since the City has shown that overall communitywide GHGs have decreased and that the City has met AB 32 GHG reduction targets. Individual project compliance with the City's Greenhouse Gas Reduction Strategy is demonstrated by completion of the Compliance Checklist for Greenhouse Gas Analysis.

In summary, the two applicable greenhouse gas reduction plans, the AB 32 Scoping Plan and the City's Greenhouse Gas Reduction Strategy, are intended to reduce GHG emissions below current levels. Given that the City's local GHG reduction targets are more aggressive than the state'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 AB 32. Therefore, proposed projects that are consistent with the City's Greenhouse Gas Reduction Strategy would be consistent with the goals of AB 32, would not conflict with either plan, and would therefore not exceed San Francisco's applicable GHG threshold of significance. Furthermore, a locally compliant project would not result in a substantial increase in GHGs.

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 in 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)

The most common GHGs resulting from human activity associated with land use decisions are CO₂, black carbon, CH₄, and N₂O.⁹⁷ 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 landfill operations.

The proposed project would increase the activity on-site by demolishing the existing single-story building, and constructing a 160 dwelling unit, mixed-use 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.

As discussed above, projects that are consistent with San Francisco's *Strategies to Address Greenhouse Gas Emissions* would result in a less than significant GHG impact. Based on an assessment of the proposed project's compliance with San Francisco's *Strategies to Address Greenhouse Gas Emissions*, the proposed project would be required to comply with the following ordinances that reduce greenhouse gas emissions, see **Table 11, Regulations Applicable to the Proposed Project**.

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⁹⁷ OPR. Technical Advisory- CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, June 19, 2008. Available at the Office of Planning and Research website at: <http://www.opr.ca.gov/ceqapdfs/june08-ceqa.pdf>. Accessed March 3, 2010.

Table 11
Regulations Applicable to the Proposed Project⁹⁸

Regulation	Requirements	Project Compliance	Discussion
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 421)	<p>All employers of 20 or more employees must provide at least one of the following benefit programs:</p> <p>1. A Pre-Tax Election consistent with 26 USC. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or</p> <p>(2) Employer Paid Benefit whereby the employer supplies a transit pass for the public transit system requested by each Covered Employee or reimbursement for equivalent vanpool charges at least equal in value to the purchase price of the appropriate benefit, or</p> <p>(3) Employer Provided Transit furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply with the Commuter Benefits Ordinance (Environment Code, Section 421) by requiring that all employers of 20 or more employees provide at least one of the three benefits programs listed.
Emergency Ride Home Program	All persons employed in San Francisco are eligible for the emergency ride home program.	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by requiring that all persons employed at the proposed project site be eligible for the emergency ride home program.

⁹⁸ Will Mollard. Greenhouse Gas Compliance Checklist for Private Development Projects. 2012. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

Regulation	Requirements	Project Compliance	Discussion
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.5)	(A) For projects up to 50 dwelling units, one Class 1 space for every 2 dwelling units. (B) For projects over 50 dwelling units, 25 Class 1 spaces plus one Class 1 space for every 4 dwelling units over 50.	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by including at least 53 Class 1 bicycle parking spaces in the building's basement (based on the proposed 160 dwelling units).
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by providing one car share parking space.
Energy Efficiency Sector			
San Francisco Green Building Requirements for Energy Efficiency (LEED EA3, San Francisco Building Code, Chapter 13C.5.410.2)	For New Large Commercial Buildings - Requires Enhanced Commissioning of Building Energy Systems For new large buildings greater than 10,000 square feet, commissioning shall be included in the design and construction to verify that the components meet the owner's or owner representative's project requirements.	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	Project sponsor shall engage a qualified consultant to conduct the commissioning in the design and construction of the project.
Commissioning of Building Energy Systems (LEED prerequisite, EAp1)	Requires Fundamental Commissioning for New High-rise Residential, Commercial Interior, Commercial and Residential Alteration projects	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	Project sponsor shall engage a qualified consultant to conduct the commissioning in the design and construction of the project.

Regulation	Requirements	Project Compliance	Discussion
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Building Code, Chapter 13C)	Under the Green Point Rated system and in compliance with the Green Building Ordinance, all new residential buildings will be required to be at a minimum 15% more energy efficient than Title 24 energy efficiency requirements.	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project would be at a minimum 15% more energy efficient than Title 24 energy efficiency requirements. Title 24 analysis that will be submitted to DBI will demonstrate how the building's heating and electrical systems have been designed to meet the energy efficiency requirements.
San Francisco Green Building Requirements for Stormwater Management (San Francisco Building Code, Chapter 13C) Or San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	Requires all new development or redevelopment disturbing more than 5,000 square feet of ground surface to manage stormwater on-site using low impact design. Projects subject to the Green Building Ordinance Requirements must comply with either LEED® Sustainable Sites Credits 6.1 and 6.2, or with the City's Stormwater Management Ordinance and stormwater design guidelines.	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project would comply by having its civil engineer prepare a Stormwater Control Plan for review and approval by SFPUC.

Regulation	Requirements	Project Compliance	Discussion
Indoor Water Efficiency (San Francisco Building Code, Chapter 13C sections 13C.5.103.1.2, 13C.4.103.2.2, 13C.303.2.)	<p>If meeting a LEED Standard;</p> <p>Reduce overall use of potable water within the building by a specified percentage – for showerheads, lavatories, kitchen faucets, wash fountains, water closets and urinals.</p> <p>New large commercial and New high rise residential buildings must achieve a 30% reduction.</p> <p>Commercial interior, commercial alternation and residential alteration should achive a 20% reduction below UPC/IPC 2006, et al.</p> <p>If meeting a GreenPoint Rated Standard:</p> <p>Reduce overall use of potable water within the building by 20% for showerheads, lavatories, kitchen faucets, wash fountains, water closets and urinals.</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	<p>The proposed project would comply by reducing overall use of potable water within the building by 20% for showerheads, lavatories, kitchen faucets, wash fountains, water closets and urinals.</p>

Regulation	Requirements	Project Compliance	Discussion
San Francisco Water Efficient Irrigation Ordinance	<p>Projects that include 1,000 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption.</p> <p>Tier 1: 1,000 sf <= project landscape < 2,500 sf</p> <p>Tier 2: Project landscape area is greater than or equal to 2,500 sf. Note; Tier 2 compliance requires the services of landscape professionals.</p> <p>See the SFPUC Web site for information regarding exemptions to this requirement. www.sfwater.org/landscape</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	<p>The proposed project would comply by having its landscaping be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC.</p>

Regulation	Requirements	Project Compliance	Discussion
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	<p>Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards:</p> <ol style="list-style-type: none"> 1. All showerheads have a maximum flow of 2.5 gallons per minute (gpm) 2. All showers have no more than one showerhead per valve 3. All faucets and faucet aerators have a maximum flow rate of 2.2 gpm 4. All Water Closets (toilets) have a maximum rated water consumption of 1.6 gallons per flush (gpf) 5. All urinals have a maximum flow rate of 1.0 gpf 6. All water leaks have been repaired. <p>Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by building all residential units to at least the listed minimum standards.

Regulation	Requirements	Project Compliance	Discussion
Residential Energy Conservation Ordinance (San Francisco Building Code, San Francisco Housing Code, Chapter 12)	<p>Requires all residential properties to provide, prior to sale of property, certain energy and water conservation measures for their buildings: attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; insulating accessible heating and cooling ducts; installing low-flow water-tap aerators; and installing or retrofitting toilets to make them low-flush. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner.</p> <p>Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply with the listed energy and water conservation measures: attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; insulating accessible heating and cooling ducts; installing low-flow water-tap aerators; and installing or retrofitting toilets to make them low-flush.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19) and San Francisco Green Building Requirements for solid waste (San Francisco Building Code, Chapter 13C)	<p>All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse.</p> <p>Pursuant to Section 1304C.0.4 of the Green Building Ordinance, all new construction, renovation and alterations subject to the ordinance are required to provide recycling, composting and trash storage, collection, and loading that is convenient for all users of the building.</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by offering separate containers designated for recycling, composting and trash. The project shall also make the storage, collection, and loading of recycling, composting and trash convenient for all users of the building.

Regulation	Requirements	Project Compliance	Discussion
San Francisco Green Building Requirements for construction and demolition debris recycling (San Francisco Building Code, Chapter 13C)	Projects proposing demolition are required to divert at least 75% of the project's construction and demolition debris to recycling.	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will, to the maximum extent feasible, reuse and recycle 75% of the project's construction and demolition debris.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14)	Requires that a person conducting full demolition of an existing structure to submit a waste diversion plan to the Director of the Environment which provides for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by submitting a waste diversion plan to the Director of the Environment which provides for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Planning Code Section 138.1)	Planning Code Section 138.1 requires new construction, significant alterations or relocation of buildings within many of San Francisco's zoning districts to plant one 24-inch box tree for every 20 feet along the property street frontage.	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by ensuring that there is a required tree every 20 feet along the property street frontage or by paying the in-lieu fee. The project will retain 5 existing street trees, plant 5 new 24-inch box trees, and either pay the in-lieu fee for 4 trees or provide alternative planting as required by Planning.

Regulation	Requirements	Project Compliance	Discussion
<p>Construction Site Runoff Pollution Prevention for New Construction</p> <p>(San Francisco Building Code, Chapter 13C)</p>	<p>Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems.</p> <p>Projects meeting a LEED® standard must prepare an erosion and sediment control plan (LEED® prerequisite SSP1).</p> <p>Other local requirements may apply regardless of whether or not LEED® is applied such as a stormwater soil loss prevention plan or a Stormwater Pollution Prevention Plan (SWPPP).</p> <p>See the SFPUC Web site for more information: www.sfwater.org/CleanWater</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>	<p>The project will comply by having its civil engineer prepare a Stormwater Management plan as required by the SFPUC.</p>
<p>Low-emitting Adhesives, Sealants, and Caulks (San Francisco Building Code, Chapters 13C.5.103.1.9, 13C.5.103.4.2, 13C.5.103.3.2, 13C.5.103.2.2, 13C.504.2.1)</p>	<p>If meeting a LEED Standard:</p> <p>Adhesives and sealants (VOCs) must meet SCAQMD Rule 1168 and aerosol adhesives must meet Green Seal standard GS-36.</p> <p>(Not applicable for New High Rise residential)</p> <p>If meeting a GreenPoint Rated Standard:</p> <p>Adhesives and sealants (VOCs) must meet SCAQMD Rule 1168.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>	<p>The proposed project will comply by meeting the SCAQMD Rule 1168 for Adhesives and sealants (VOCs).</p>

Regulation	Requirements	Project Compliance	Discussion
Low-emitting materials (San Francisco Building Code, Chapters 13C.4. 103.2.2,	<p>For Small and Medium-sized Residential Buildings - Effective January 1, 2011 meet GreenPoint Rated designation with a minimum of 75 points.</p> <p>For New High-Rise Residential Buildings - Effective January 1, 2011 meet LEED Silver Rating or GreenPoint Rated designation with a minimum of 75 points.</p> <p>For Alterations to residential buildings submit documentation regarding the use of low-emitting materials.</p> <p>If meeting a LEED Standard:</p> <p>For adhesives and sealants (LEED credit EQ4.1), paints and coatings (LEED credit EQ4.2), and carpet systems (LEED credit EQ4.3), where applicable.</p> <p>If meeting a GreenPoint Rated Standard:</p> <p>Meet the GreenPoint Rated Multifamily New Home Measures for low-emitting adhesives and sealants, paints and coatings, and carpet systems.</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by meeting the GPR Multifamily New Home Measures for low-emitting adhesives and sealants, paints and coatings, and carpet systems.

Regulation	Requirements	Project Compliance	Discussion
Low-emitting Paints and Coatings (San Francisco Building Code, Chapters 13C.5.103.1.9, 13C.5.103.4.2, 13C.5.103.3.2, 13C.5.103.2.2, 13C.504.2.2 through 2.4)	<p>If meeting a LEED Standard:</p> <p>Architectural paints and coatings must meet Green Seal standard GS-11, anti-corrosive paints meet GC-03, and other coatings meet SCAQMD Rule 1113.</p> <p>(Not applicable for New High Rise residential)</p> <p>If meeting a GreenPoint Rated Standard:</p> <p>Interior wall and ceiling paints must meet <50 grams per liter VOCs regardless of sheen. VOC Coatings must meet SCAQMD Rule 1113.</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by meeting the <50 grams per liter VOCs standard for interior wall and ceiling paints, and meeting SCAQMD Rule 1113 for VOC Coatings.
Low-emitting Flooring, including carpet (San Francisco Building Code, Chapters 13C.5.103.1.9, 13C.5.103.4.2, 13C.5.103.3.2, 13C.5.103.2.2, 13C.504.3 and 13C.4.504.4)	<p>If meeting a LEED Standard:</p> <p>Hard surface flooring (vinyl, linoleum, laminate, wood, ceramic, and/or rubber) must be Resilient Floor Covering Institute FloorScore certified; carpet must meet the Carpet and Rug Institute (CRI) Green Label Plus; Carpet cushion must meet CRI Green Label; carpet adhesive must meet LEED EQc4.1.</p> <p>(Not applicable for New High Rise residential)</p> <p>If meeting a GreenPoint Rated Standard:</p> <p>All carpet systems, carpet cushions, carpet adhesives, and at least 50% of resilient flooring must be low-emitting.</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by ensuring that all carpet systems, carpet cushions, carpet adhesives, and at least 50% of resilient flooring are low-emitting.

Regulation	Requirements	Project Compliance	Discussion
Low-emitting Composite Wood (San Francisco Building Code, Chapters 13C.5.103.1.9, 13C.5.103.4.2, 13C.5.103.3.2, 13C.5.103.2.2 and 13C.4.504.5)	<p>If meeting a LEED Standard:</p> <p>Composite wood and agrifiber must not contain added urea-formaldehyde resins and must meet applicable CARB Air Toxics Control Measure.</p> <p>If meeting a GreenPoint Rated Standard:</p> <p>Must meet applicable CARB Air Toxics Control Measure formaldehyde limits for composite wood.</p>	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by meeting applicable CARB Air Toxics Control Measure formaldehyde limits for composite wood.
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3102.8)	<p>Bans the installation of wood burning fire places except for the following:</p> <ul style="list-style-type: none"> • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District 	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by not including wood burning fire places.
Regulation of Diesel Backup Generators (San Francisco Health Code, Article 30)	<p>Requires (among other things):</p> <ul style="list-style-type: none"> • All diesel generators to be registered with the Department of Public Health • All new diesel generators must be equipped with the best available air emissions control technology. 	<input checked="" type="checkbox"/> Project Complies <input type="checkbox"/> Not Applicable <input type="checkbox"/> Project Does Not Comply	The proposed project will comply by registering the diesel generator with the Department of Public Health and equipping it with the best available air emissions control technology.

Depending on a proposed project's size, use, and location, a variety of controls are in place to ensure that a proposed project would not impair the State's ability to meet statewide GHG reduction targets outlined in AB 32, or impact the City's ability to meet San Francisco's local GHG reduction targets. Given that: (1) San Francisco has implemented regulations to reduce GHG emissions specific to new construction and renovations of private developments and municipal projects; (2) San Francisco's sustainable policies have resulted in the measured reduction of annual GHG emissions; (3) San Francisco has met and exceeds AB 32 GHG reduction goals for the year 2020 and is on track towards meeting long-term GHG reduction goals; (4) current and probable

future state and local GHG reduction measures will continue to reduce a project's contribution to climate change; and (5) San Francisco's *Strategies to Address Greenhouse Gas Emissions* meet the CEQA and BAAQMD requirements for a Greenhouse Gas Reduction Strategy, projects that are consistent with San Francisco's regulations would not contribute significantly to global climate change. The proposed project would be required to comply with the requirements listed above, and was determined to be consistent with San Francisco's *Strategies to Address Greenhouse Gas Emissions*.⁹⁹ As such, the proposed project would result in a *less than significant* impact with respect to GHG emissions. No mitigation measures are necessary.

Based on the discussion above, the proposed project would result in *less than significant* project-specific and cumulative impacts with respect to GHG emissions.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
9. WIND AND SHADOW—Would the project:					
a) Alter wind in a manner that substantially affects public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

Tall buildings and structures can strongly affect the wind environment for pedestrians. Groups of structures tend to slow the winds near ground level, due to the friction and drag of the structures themselves on winds. Buildings that are much taller than their surrounding buildings intercept and redirect winds that might otherwise flow overhead, and bring them down the vertical face of the building to ground level, where they create ground-level wind and turbulence. These redirected winds can be relatively strong and also relatively turbulent, and can be incompatible with the intended uses of nearby ground-level spaces. In addition, building designs that present tall flat surfaces square to strong winds can create ground-level winds that can prove to be hazardous to pedestrians in the vicinity.

⁹⁹ San Francisco Planning Department. Compliance Checklist Table for Greenhouse Gas Analysis: Table 1. Private Development Projects. Revised September 21, 2012. Available online: http://sfmea.sfplanning.org/GHG_Checklist_T1.doc

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. With velocity from 4 to 8 mph, wind is felt on the face. Winds from 8 to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole, while winds from 13 to 19 mph will raise loose paper, dust and dry soil, and will disarrange hair. For wind velocities from 19 to 26 mph, the force of the wind will be felt on the body. At 26 to 34 mph, umbrellas are used with difficulty; hair is blown straight; there is difficulty in walking steadily; and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance and gusts can blow people over.

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. Section 148 of the *Planning Code* specifically outlines these criteria for the Downtown Commercial (C-3) Districts, including the project site. 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.¹⁰⁰ 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 Section 309, if the building or 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, and it is concluded that the exceedance(s) of the criteria would be insubstantial “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.”

Section 148 also establishes a hazard criterion, which is a 26 mph equivalent wind speed for a single full hour, or approximately 0.0114 percent of the time. Under Section 148, new buildings and additions may not cause wind speeds that meet or exceed this hazard

¹⁰⁰ The *Planning Code* specifies the hours of 7:00 a.m. to 6:00 p.m. In contrast, the available weather data, as aggregated, cover the hours of 6:00 a.m. to 8:00 p.m. Thus, observations from two additional evening hours and one additional morning hour are included in the wind speed distribution data.

criterion.¹⁰¹ Under Section 148, no exception may be granted for buildings that result in winds that exceed the hazard criterion.

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; when stated on the same basis as the comfort criteria wind speeds, the hazard criterion wind speed is a one-minute average of 36 mph, the value used in the tables.

To assess the proposed project's wind impacts, a wind tunnel analysis was completed in June 2012 by Environmental Science Associates (ESA).¹⁰² ESA conducted a wind tunnel test of the proposed project using a 1-inch to 50-foot scale model of the blocks in the project vicinity to simulate wind patterns. A total of 20 test point locations along sidewalk areas adjacent to and near the project site, were selected as shown in **Figure 10, Wind Test Point Locations**. Wind tunnel tests were conducted for the project site and vicinity using the following three different scenarios:

- 1- Existing Conditions
- 2- Existing Conditions plus Proposed Project
- 3- Proposed Project plus Cumulative

Existing Wind Conditions

The project site is in an area that is characterized by very strong and turbulent winds. Wind hazards are known to occur along Mission, Ninth and Tenth Streets, as well as on Market Street and beyond.

Comfort Criterion Conditions. Under existing conditions all test locations exceeded the *Planning Code's* pedestrian comfort level of 11 mph (more than 10 percent of the time), as shown in **Table 12, Comfort Criterion Results**, below. The average wind speed for the 20 sidewalk test point locations is approximately 14.2 mph.¹⁰³ The highest wind speed in

¹⁰¹ Because the hazard criterion is stated in terms of 1 hour of exceedance, it is most appropriate to report exceedances of this criterion in terms of the number of hours per year that the excess occurs, rather than the accompanying wind speeds. Thus, for each wind analysis, the number of locations and the total sum of the durations of exceedances of the hazard criterion are important measures of effect. This differs from reporting of both comfort criteria, for which wind speeds exceeded ten percent of the time are examined and presented, but statistics other than the number of locations are not detailed.

¹⁰² Bennett, Charles. Environmental Science Associates. 2012. Technical Memorandum. June 1. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

¹⁰³ "Wind speed" refers to equivalent wind speed (including the effects of turbulence) that is exceeded 10 percent of the time.

the vicinity is 20 mph and occurs near the northwest side of 9th Street, near Market Street.

Hazard Conditions. As shown in **Table 13, Wind Hazard Criterion Results**, under existing conditions, four locations (O9, O12, O13 and O17), all of which are on 9th Street, exceeded the wind hazard criterion (speeds reaching or exceeding the hazard level of 26 mph, as averaged for a single full hour of the year) for a total of 40 hours. The location with the largest wind hazard occurs near the east side of 9th Street, near Market Street (O9), which has 29 hours per year of exceedance.

Significance Criteria

A project would normally have a significant impact if it would:

- Cause the 26-miles-per-hour wind hazard criterion to be exceeded for more than one hour per year.

Impact WS-1: The proposed project would not alter wind in a manner that would substantially affect public areas. (Less than Significant)

As described above, ESA prepared a wind study to analyze the effects of the proposed project on wind speeds in the area. The changes in wind speeds could cause exceedances of the comfort criterion, or wind hazard criterion.

Comfort Criterion Analysis. As shown in **Table 12**, with development of the proposed project, the wind speed for all 20 sidewalk test point locations would average about 14.3 mph, a 0.1 mph increase from the existing average of 14.2 mph. The range of wind speeds with development of the project would be similar to existing conditions, with wind speeds in sidewalk pedestrian areas ranging from 11 mph to 20 mph, compared with a range of 12 to 20 mph under existing conditions. With implementation of the proposed project, there would be localized changes throughout the project vicinity; however, the overall wind conditions would remain substantially the same.

Wind speeds would remain unchanged at 15 locations and change by 1 mph or less at 5 locations. The project would eliminate one existing exceedance of the pedestrian comfort criterion (at point O18 located on the north side of Mission Street) for a total of 19 exceedances. The proposed project would further increase the wind speeds by 1 mph along the south side of Mission Street and would decrease the wind speeds by 1 mph at the northeast corner of Mission and 9th Street. Exceeding the seating or pedestrian comfort criteria is not a significant wind impact under CEQA; however, the project would require a *Planning Code* Section 309 exception.



Symbol	Test Location
1	Y1, Y2, Y3, Y4, Y5
17	B17, B18, B20, B21
9	O9, O12, O13, O17, O18, O19, O20, O21, O22, O23, O24

SOURCE: ESA, 2012

FIGURE 10

Test Point Location Map

Table 12
Comfort Criterion Results

References		Existing			Project				Cumulative			
Test Location Number	Wind Comfort Criterion Speed, miles/hour	Equivalent Wind Speed Exceeded 10% of Time, miles/hour	Percent of Time Wind Speed Exceeds Criterion	S O U R C E	Equivalent Wind Speed Exceeded 10% of Time, miles/hour	Percent of Time Wind Speed Exceeds Criterion	Speed Change Relative to Existing, miles/hour	S O U R C E	Equivalent Wind Speed Exceeded 10% of Time, miles/hour	Percent of Time Wind Speed Exceeds Criterion	Speed Change Relative to Project, miles/hour	S O U R C E
Y1	11	12	13	e	12	12		e	12	11		e
Y2	11	15	18	e	15	18		e	15	28	1	e
Y3	11	14	16	e	14	16		e	15	20	1	e
Y4	11	12	13	e	13	14		e	10	8	-3	-
Y5	11	12	11	e	13	15	1	e	13	13		e
B17	11	14	21	e	14	21		e	13	20	-1	e
B18	11	12	12	e	13	15	1	e	13	14		e
B20	11	14	24	e	14	24		e	16	30	2	e
B21	11	14	23	e	14	23		e	16	30	2	e
O9	11	20	35	e	20	36		e	18	31	-1	e
O12	11	17	24	e	17	23		e	16	19	-1	e
O13	11	17	20	e	16	19		e	17	28	1	e
O17	11	16	20	e	16	21		e	17	22	1	e
O18	11	12	11	e	11	11		-	11	9	-1	-
O19	11	16	21	e	15	20	-1	e	15	19	-1	e
O20	11	14	17	e	16	21	1	e	15	19	-1	e
O21	11	13	14	e	13	14		e	13	14		e
O22	11	13	15	e	13	14		e	13	14		e
O23	11	13	15	e	14	18	1	e	15	18		e
O24	11	13	14	e	13	14		e	13	13		e
Ave. of 10%		14.2 mph			14.3 mph		0.1 mph		14.2 mph		0 mph	
Percent:		18%			18%				19%			
Total Exceedances:		Total		20	Total		19		Total		18	
Subtotals by type:		Existing		20	Existing		19	e	Existing or Project		18	e/p
					New, due to Project		0	p	New, due to Cumulative		0	s
					New, at new location		0	n	New, at new location		0	n
					Eliminated by Project		1	-	Eliminated by Cumulative		1	-

Notes: e = Existing exceedence; p = Exceedence due to Project; s = Exceedence due to Cumulative
Wind speeds and durations are rounded, so column totals and row differences may not add.

Wind Hazard Criterion Analysis. As previously discussed, the *Planning Code* Section 148 wind hazard criterion is currently exceeded at four test locations on Ninth Street, between Mission and Market Streets. As shown in **Table 13 Wind Hazard Criterion Results**, adding the project would not change the number of wind hazards, but would increase the duration of one hazard (#O12) by one hour and would decrease the duration of another hazard (#O17) by two hours. Hazards would continue to occur at all three points on the east side of Ninth (#O9, #O13, #O17) and one (#O12) mid-block on the west side of Ninth Street. The annual durations of these wind hazards would be: #O9 – 20 hours; #O12 – 4 hours, #O13 – 3 hours, and #O17 – 3 hours, for a total of 39 hours, a decrease of one in the total number of hours.

With implementation of the project, the average wind speed for all 20 sidewalk test point locations would be about 31 mph, which is the same as existing conditions. Also,

with development of the project, the range of wind speeds would be the same as under existing conditions, with wind speeds in sidewalk pedestrian areas ranging from 25 mph to 43 mph.

The four test locations that exceed the wind hazard criterion under existing conditions would continue to do so with implementation of the proposed project, with a reduction of 1 hour, for a total of 39 hours.¹⁰⁴ As discussed above, the project would reduce the exceedance of the wind hazard criterion by 1 hour compared to existing conditions. Therefore, the proposed project would have a *less than significant* impact related to local wind hazards.

Table 13
Wind Hazard Criterion Results

References		Existing			Project				Cumulative			
Test Location Number	Wind Hazard Criterion Speed, miles/hour	1-hour/year Equivalent Wind Speed, miles/hour	Wind Hazard Criterion Exceeded, hours/year	S O U R C E	1-hour/year Equivalent Wind Speed, miles/hour	Wind Hazard Criterion Exceeded, hours/year	Hazard Hours Change Relative to Existing	S O U R C E	1-hour/year Equivalent Wind Speed, miles/hour	Wind Hazard Criterion Exceeded, hours/year	Hazard Hours Change Relative to Project	S O U R C E
Y1	36	26			26				24			
Y2	36	32			32				33			
Y3	36	30			30				33			
Y4	36	27			28				22			
Y5	36	25			27				28			
B17	36	28			28				25			
B18	36	27			29				29			
B20	36	27			27				29			
B21	36	33			32				30			
O9	36	43	29	e	43	29		e	41	14	-15	p
O12	36	37	3	e	38	4	1	p	35		-4	-
O13	36	38	3	e	38	3		e	37	2	-1	p
O17	36	39	5	e	38	3	-2	e	39	4	1	s
O18	36	27			25				23			
O19	36	36			32				31			
O20	36	32			34				34			
O21	36	31			29				30			
O22	36	32			30				29			
O23	36	32			32				33			
O24	36	27			27				26			
Ave. 1-hr:		31 mph			31 mph				30 mph			
Total hrs:			40 hr			39 hr	-1 hr			20 hr	-19 hr	
Total Exceedances:		Total	4		Total	4			Total	3		
Subtotals by type:		Existing	4	e	Existing	3	e		Existing or Project	2	e/p	
					New or increased time	1	p		New or increased time	1	s	
					New, at new location	0	n		New, at new location	0	n	
					Eliminated by Project	0	-		Eliminated by Cumulative	1	-	

SOURCE: Environmental Science Associates

Notes: e = Existing exceedence; p = Exceedance due to Project; s = Exceedance due to Cumulative
Wind speeds and durations are rounded, so column totals and row differences may not add.

¹⁰⁴ Environmental Science Associates. 2012. Technical Memorandum. June 1. This study is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

Impact WS-2: The proposed project would result in new shadows, but not in a manner that would substantially affect outdoor recreation facilities or other public areas. (Less than Significant)

Section 295 of the *Planning Code* was adopted in response to Proposition K (passed November 1984) to protect certain public open spaces from shadowing by new structures from one hour after sunrise to one hour before sunset, annually. Section 295 restricts new shadows on public spaces under the jurisdiction of the Recreation and Park Department by any structure exceeding 40 feet, unless the City Planning Commission finds the impact to be insignificant. Under *Planning Code* Section 295 and the joint Planning Commission and Recreation and Park Commission criteria, any new shadow beyond the absolute cumulative limit is considered “significant” in the way that term is used in *Planning Code* Section 295. In contrast, the significance threshold for environmental review addresses a broader array of shadow-related considerations that may include not only quantitative criteria, but also open space usage, time of day and/or time of year, 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 and enjoyment of the park or public space would be substantially and adversely affected, then the impact is “significant” in the way that term is used in CEQA. As a result, there are situations under which new shadow that is considered significant under *Planning Code* Section 295, would not have a significant environmental impact under CEQA. There are also situations under which new shadow that is a significant environmental impact under CEQA would not be considered significant under *Planning Code* Section 295.

There are no recreation or open spaces near the proposed project. The nearest open space is the Civic Center/UN Plaza located approximately a quarter mile away. In order to determine whether this project would conform to Section 295, a preliminary shadow fan was prepared by the Planning Department staff. The analysis determined that the project shadow would not shade public areas subject to Section 295.¹⁰⁵ Because of the height of the proposed building and the configuration of existing buildings in the vicinity, the new shading which would result from the project’s construction would not affect parks or open spaces protected by Section 295. The project would replace a one-story building with an 11-story structure and, therefore, result in new shadows on sidewalks and pedestrian areas adjacent to the site. Increased shading would be experienced by pedestrians in the area. However the project’s shadow effects would be limited in scope and would not increase the total amount of shading above levels that

¹⁰⁵ A copy of the shadow fan analysis is available for public review by appointment in Case File 2011.0312E at the San Francisco Planning Department, 1650 Mission Street, 4th Floor.

are commonly and generally accepted in urban areas. Based on the information presented above, the proposed project would have a *less than significant* effect related to shadowing of public open spaces.

Impact C-WS-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative wind and shadow impacts. (Less than Significant)

Wind. The wind study conducted for this project also evaluated the cumulative effect of the proposed project in conjunction with other completed, approved and pending projects on the wind conditions in the project vicinity. The study noted that a few of the nearby projects may have a greater impact due to their size and proximity upwind of the proposed project. The most influential projects are at 55 9th Street, the Fox Plaza building (adding a tower), 1415 Mission Street, 1400 Mission Street, and 1540 Market Street. Under the cumulative scenario, one existing exceedance of the pedestrian-comfort criterion in addition to the one eliminated by the project would be eliminated, resulting in a total of 18 exceedances among the 20 test points, as noted in **Table 12**. Under the cumulative scenario one wind hazard exceedance location would be eliminated and the total hours of exceedance would decline to 20 hours, as noted in **Table 13**. Overall, the cumulative wind analysis indicates that the proposed project would generally reduce comfort criteria and wind hazard exceedances. Therefore, the cumulative impact of the proposed project in conjunction with other past, present and reasonably foreseeable future projects would be *less than significant*.

Shadow. As previously discussed, the proposed project would not cast new shadows on public open spaces, as none exist in the project's vicinity. The projects under construction, approved, or proposed in the surrounding area would cast new shadows in the vicinity; however, all projects would be subject to controls to avoid substantial new shading on public open spaces. Potential future development could add shade to streets and sidewalks in the vicinity. However, it is anticipated that the design of these developments would limit such shading. This would not be considered a significant impact. Thus the proposed project, in combination with cumulative projects considered in this analysis, would not be expected to contribute considerably to significant adverse shadow effects under cumulative conditions, and cumulative shadow impacts would be considered *less than significant*.

The project-specific and cumulative impacts from the proposed project related to wind and shadow would be *less than significant*.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
10. 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 type="checkbox"/>	<input checked="" 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"/>

Impact RE-1: The proposed project would not result in a substantial increase in the use of existing parks and recreational facilities such that substantial deterioration of such facilities would occur or be accelerated. The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities, nor would it substantially, physically degrade existing recreational resources. (Less than Significant)

The proposed project would provide on-site open space for passive recreational use for project residents through the common rooftop courtyard space totaling 4,355 gsf. A variety of nearby parks would provide residents with places to participate in active recreation. The following open space and recreational facilities are located within the project site vicinity: Civic Center/UN Plaza (two blocks north of the project site), Howard and Langton Mini Park (five blocks southeast), and Jefferson Square Park (eight blocks northwest of the project site).

In 1998, the City of San Francisco initiated the Great Parks for a Great City Assessment Project to determine the condition of the park system as well as to determine future needs. In August of 2004, the San Francisco Recreation and Park Department published a Recreation Assessment Report that evaluates the recreation needs of San Francisco residents.¹⁰⁶ Nine service area maps were developed for the Recreation Assessment Report. The service area maps were intended to help Recreation and Park Department staff and key leadership assess where services are offered, how equitable the service delivery is across the City and how effective the service is as it applies to participating levels overlaid against the demographics of where the service is provided. A review and

¹⁰⁶ San Francisco Recreation and Park Department, Recreation Assessment Report, August 2004

interpretation of the data on the service area maps revealed that Census Tract 176.01, in which the project site is located, is a high need area for recreation and open space improvements, based on the high density of residents, seniors, and children per net acre and low household income relative to the City median. However, as mentioned above, the project site is served by several existing recreation facilities.

With the projected addition of 230 new residents to the area, the proposed project would be expected to generate a small addition in demand for the above-described recreational facilities. The additional use of the recreational facilities would be relatively minor compared with the existing use and therefore, the proposed project would not be expected to result in substantial physical deterioration of existing recreational resources or require the construction or expansion of recreation facilities that might have an adverse physical effect on the environment. The impact on recreational facilities and resources would be *less than significant*.

Impact C-RE-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative impacts on recreational facilities and parks. (Less than Significant)

As stated above, the area in which the project is located has a high need for recreation and open space improvements. The proposed project and the cumulative projects described fully in **Section E. 1 Land Use and Land Use Planning**, page 23, would include high-density residential buildings which would increase the use of existing recreational resources. The use of recreational facilities in the vicinity of the project site is not expected to noticeably increase as a result of the proposed project. As mentioned above, the proposed project, which would construct 160 new residential units, would provide an approximately 4,100 sf of rooftop common area, and 1,070 sf common landscaped court yard on the first residential level to serve the recreational space needs of the project's residents. Furthermore, the City requires that each project provide a certain amount of open space for the residents to use, and all of the cumulative projects would provide open space for each project's residents. Consequently, although each project would increase use of recreational facilities and parks, but the increase would not be significant compared to the existing demand. The cumulative impact from the proposed project and other reasonably foreseeable future projects would be *less than significant*.

The proposed project's project-specific and cumulative impacts on recreational facilities and resources would be *less than significant*.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
11. 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: The proposed project would not exceed the wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB), require or result in the construction of new, or expansion of existing water, wastewater treatment facilities, or stormwater drainage facilities and the proposed project would be adequately served by the City's wastewater treatment provider. (Less than Significant)

The project site is located within an area that is served by existing utilities and service systems including solid waste disposal, wastewater, and stormwater collection and treatment, power, water, and communication facilities. The minor increase in population

at the project site would incrementally increase the demand for wastewater treatment; however, it would not cause the collection treatment capacity to be exceeded or require the wastewater treatment facilities to be expanded or a sewer line to be extended.

The project site is currently covered entirely with impervious surfaces and the proposed project would not create any additional impervious surfaces, thus resulting in no increase in the total stormwater volume discharged to the combined sewer system. In addition, the San Francisco Stormwater Design Guidelines, which were adopted by the San Francisco Public Utilities Commission (SFPUC) on January 12, 2010 (Ordinance No. 83-10), require project applicants proposing development or redevelopment projects disturbing more than 5,000 sf of ground to manage stormwater on-site. The proposed project would disturb 9,208 sf and would therefore be required to comply with the Stormwater Design Guidelines. The Stormwater Design Guidelines would require landscape features and structural elements such as swales, rain gardens, and green roofs to be incorporated as part of site design to reduce runoff and improve water quality. The implementation of these guidelines would reduce stormwater discharge volumes from the project site.

A stormwater plan has been developed for the project. The plan entails the use of several elements: 1) approximately 1,050 square feet of flow-through planters located on the second floor deck; 2) approximately 383 square feet of permeable planters and approximately 972 square feet of planting located at street level; and 3) approximately 1,000 square feet of hardscape on the roof level draining to an infiltration trench of roughly 125 square feet located at the building entrance on Mission Street. With the implementation of the proposed stormwater plan, the proposed project would comply with the requirements of the ordinance.

Project-related wastewater and stormwater would continue to flow to the City's combined stormwater and sewer system and would be treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant prior to discharge into the Bay. Because the NPDES standards are set and regulated by the Bay Area Regional Water Quality Control Board (RWQCB), the project would not conflict with the RWQCB requirements. Therefore, impacts related to exceedance of wastewater treatment requirements or construction of a new water or wastewater/stormwater facility or infrastructure would be *less than significant*.

Impact UT-2: The proposed project would increase the amount of water used on the site, but would be adequately served by existing entitlements and water resources. (Less than Significant)

The proposed project would include residential use (comprising 160 dwelling units), and approximately 3,359 square feet of commercial space that could employ up to 10 employees and would not exceed any of the criteria established by Senate Bill 610 for a Water Supply Assessment (WSA) and therefore, a WSA is not required for the proposed project.

The proposed project would increase the amount of water required to serve the proposed uses. However, the proposed project would not result in a population increase beyond that assumed for planning purposes by the San Francisco Public Utilities Commission's (SFPUC). In June 2011, the SFPUC adopted a resolution finding that the SFPUC's *Urban Water Management Plan* (UWMP) adequately fulfills the requirements of the water assessment for water quality and wastewater treatment and capacity as long as a project is covered by the demand projections identified in the UWMP¹⁰⁷, which includes all known or expected development projects and projected development in San Francisco at that time through 2035. The UWMP utilizes ABAG projections in determining projected growth for the area, and as discussed above in Population and Housing, the project would be within the projected population growth for the City of San Francisco. Therefore, the project would not exceed the UWMP's water supply projections.

The proposed project, with an estimated 230 residents, would require approximately 11,500 gallons of water per day.¹⁰⁸ The project's commercial use would result in an estimated demand for 593 gallons per day.¹⁰⁹ In sum, the proposed project's overall estimated water demand would be about 12,093 gallons per day. Additionally, as required by the San Francisco Green Building Ordinance, adopted May 6, 2008, the project would be required to implement a 20 percent reduction in potable water (requiring installation of low-flow fixtures).¹¹⁰ Although the project would increase the amount of water required on site, the estimated increase would be accommodated within the City's anticipated water use projections and would be accommodated by existing and planned water supply anticipated under the SFPUC's UWMP. Also the proposed project would include water conservation devices, it would not result in a substantial increase in water use, and could be served from existing water supply

¹⁰⁷ City and County of San Francisco, Public Utilities Commission, Resolution No. 02-0084, May 14, 2002.

¹⁰⁸ Based on current residential use in San Francisco of 50 gallons per capita per day (SFPUC, 2010 Urban Water Management Plan for the City and County of San Francisco, 2010, p. 34). Available for viewing at <http://sfwater.org/Modules/ShowDocument.aspx?documentID=1055>, Accessed for this report on March 7, 2012.

¹⁰⁹ Based on current employee use in San Francisco of 53.9 gallons per employee-day. (SFPUC, 2011 Retail Water Conservation Plan. June 2011. p. 28) Available for viewing at <http://www.sfwater.org/modules/showdocument.aspx?documentid=188>, Accessed for this report on October 5, 2012.

¹¹⁰ *City of San Francisco Building Coder, Chapter 13-C. Green Building Administrative Bulletin AB-093* Available for viewing at <http://sfdbi.org/Modules/ShowDocument.aspx?documentid=308>

entitlements and resources. Considering all of the above, the proposed project would result in *less than significant* water impacts.

Impact UT-3: The proposed project would increase the amount of solid waste generated on the project site, but would be adequately served by the City's landfill and would comply with federal, state, and local statutes and regulations related to solid waste. (Less than Significant)

Solid waste generated in San Francisco is transported to and disposed of at the Altamont Landfill in Alameda County, which is required to meet federal, state, and local regulations for disposal of non-hazardous waste. The total permitted capacity of the landfill is 62 million cubic yards; the remaining capacity is approximately 45.7 million cubic yards. This landfill has a permitted peak maximum disposal capacity of 11,500 tons per day and is operating well below that capacity, at approximately 4,000 to 5,000 tons per day. In addition, the landfill has an annual solid waste capacity of 2,226,500 tons from the City and County of San Francisco. However, the landfill is well below its allowed capacity, as it received approximately 1.29 million tons of solid waste from the City and County of San Francisco in 2007, the most recent year for which data are available.

Recycling, composting, and waste reduction are expected to increasingly divert waste from the landfill, per California and local requirements. The City was required by the State's Integrated Waste Management Act (AB 939) to divert 50 percent of its waste stream from landfill disposal by 2000. The City met this threshold in 2003 and has since increased it to 69 percent in 2005 and 70 percent in 2006. In addition, the Board of Supervisors adopted a plan in 2002 to recycle 75 percent of annual wastes generated by 2010, which the City met in 2008. In 2003, the Board of Supervisors adopted a resolution to achieve zero waste to landfills by 2020.

The proposed project would be in compliance with City Ordinance 100-09, the Mandatory Recycling and Composting Ordinance which requires everyone in San Francisco to separate their refuse into recyclables, compostables, and trash. The proposed project would participate in the City's recycling and composting programs and other efforts to reduce the solid waste disposal stream. The Altamont Landfill is expected to remain operational until at least 2029 and has plans to increase capacity by 250 additional acres. With the City's increase in recycling and the potential Altamont Landfill expansion, the City's solid waste disposal demand could be met through at least 2029. Given the existing and anticipated increase in solid waste recycling and the proposed landfill expansion, the project would have a *less than significant* impact on solid waste facilities.

Impact C-UT-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative impacts on public utilities and service systems. (Less than Significant)

The proposed project would not significantly affect water supply, wastewater facilities, or solid waste services. Existing service provision plans address anticipated growth in the region. The proposed project and cumulative projects, described in **Section E. 1 Land Use and Land Use Planning**, page 23, would not exceed growth projections for San Francisco as discussed further under **Section E. 3 Population and Housing**, page 31. In addition, the SFPUC took into account San Francisco growth projections when preparing the 2010 UWMP to ensure water demand is met. Therefore, the proposed project and cumulative development would not have a significant cumulative effect on utilities and service systems. For the reasons discussed above, utilities and service systems would not be cumulatively affected by the project, and therefore impacts on utilities and service systems would be *less than significant*.

For the reasons stated above, the project-specific and cumulative impacts of the proposed project on utilities and service systems would be *less than significant*.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact	Not Applicable
12. 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"/>

The project site is already served by public services, including police and fire protection, schools, and parks. Under CEQA criteria, a project would have significant impacts on public services if it were to substantially affect the service ratios or response times of any public service, which would result in the need for new or expanded governmental facilities, the construction of which could cause significant environmental effects.

Impact PS-1: The proposed project would not result in substantial adverse physical impacts associated with new or altered government facilities in order to maintain acceptable performance objectives for any public services such as police, fire protection, schools, and parks. (Less than Significant)

Police Services

The existing building on the project site currently receives police services from the San Francisco Police Department (SFPD). The nearest police station is the Southern Station located at 850 Bryant Street, which is about six and a half blocks southeast of the project site. The proposed project would increase development intensity on the site and would increase the demand for, and use of, police services, but not in excess amounts expected and provided for the area. Given the nature of the proposed project, it would not necessitate the construction of a new police station and would have a *less than significant* effect on police services.

Fire Protection Services

The project site currently receives fire protection services from the San Francisco Fire Department (SFFD). The nearest fire station is Station 36, located at 676 Howard Street, which is about four blocks to the west. The proposed project would demolish the existing single-story commercial building and construct a new mixed-use building with 160 residential units and approximately 3,359 gsf of ground floor commercial space. The project would add approximately 230 new residents to the area and the number of calls for services from the project site is expected to increase. However, the project-related increase in residential population is within the growth projections for the area and the incremental demand for fire and emergency medical services by the new residents would be within the capacity of SFFD. Meeting this additional service demand would not require the construction of new fire prevention facilities. Thus, the project would have a *less than significant* effect on fire services.

Schools

The San Francisco Unified School District (SFUSD) provides public primary and secondary education in the City and County of San Francisco. The nearest schools to the project site include: Tenderloin Elementary School (627 Turk Street); Carmichael, Bessie Elementary and Middle School/Filipino Education Center (45 Cleveland Street); and

O'Connell High School (2355 Folsom Street).¹¹¹ No new schools are planned near the project site.

In the last decade, overall the San Francisco Unified School District (SFUSD) enrollment has gradually declined. The decline stopped in the fall of 2008, when kindergarten enrollments began to increase, reflecting a growth in birth rates five years earlier. SFUSD projections indicate that elementary enrollment will continue to grow.¹¹² The number of elementary school students will eventually rise from 25,000 students in 2008 to 27,600 in 2013, representing an 11 percent increase in five years. After a slight decline in 2009 and 2010, middle school enrollment will increase again. However, in 2013 it will still stand below current enrollment (at 11,640 compared with 11,816 in 2008). High school enrollment will experience a continuous decline over the next five years, from 19,696 students in 2008 to 18,396 in 2013. District-wide enrollment as of Fall 2008 was 55,272. SFUSD is adopting a new student assignment policy to manage the projected growth in students.

~~A portion of the units applied by the proposed project would be student housing. The proposed project is planned as a student housing project to serve institutions of higher education in this part of San Francisco. Therefore, the project is not expected to house families with school-age children that would require SFUSD school services.~~
~~However~~The non-student households in the event that the proposed housing is occupied by non-student households, given the type of housing proposed (120 studios units and 40 two or three bedroom units), it would generate a small number of school-age children given the type of housing proposed (120 studios units and 40 two or three bedroom units). An increase in school-age children associated with the proposed project would not substantially change the demand for schools, and no new facilities are expected to be needed to accommodate the students. The project would also be required to pay school impact fees in accordance with Senate Bill 50.

Parks

The project's impact on parks is discussed above under Impact RE-1 and was determined to be less than significant.

Based on the above, the proposed project would result in a *less than significant* impact related to public services.

¹¹¹ San Francisco Unified School District website, <http://www.sfpublicschools.org/php/lookup.php>, Accessed March 8, 2012.

¹¹² San Francisco Unified School District, Capital Plan FY 2010-2019, September 2009. Available at <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/capital-plan-final-2010-2019.pdf>, Accessed February 11, 2010.

Impact C-PS-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative impacts on public services. (Less than Significant)

As discussed above, the project would have a less than significant effect on schools as it is expected to add a negligible number of school-age children to the project area schools. Cumulative projects discussed in **Section E. 1 Land Use and Land Use Planning**, page 23, would also be required to pay fees in accordance with Senate Bill 50.¹¹³ Therefore with payment of impact fees pursuant to Senate Bill 50, the cumulative impact on schools would be less than significant. With respect to other public services which include police and fire, while demand for police and fire would increase as a result of cumulative development, including the demand associated with the proposed project, and expansion of these facilities could be required under the cumulative scenario, the incremental expansion of police and fire facilities would not be expected to result in significant environmental impacts. Therefore, the cumulative impacts on public services would be *less than significant*.

The project-specific and cumulative impacts of the proposed project on public services would be *less than significant*.

¹¹³ Senate Bill 50 went into effect in 1999 and governs how much developers are required to pay per square foot for development of new projects in California.

<i>Topics:</i>	<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>
13. BIOLOGICAL RESOURCES— Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US 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 type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plans. As such, topic 13f is not discussed below.

Impact BI-1: The proposed project would not modify habitats in ways that would substantially and adversely affect special status species, riparian, wetland, sensitive natural communities, or protected wetlands, or otherwise conflict with an adopted conservation plan. (Less than Significant)

The project site is within a developed area of the City. It is currently occupied by a one-story commercial building. There are no riparian or wetland areas on the project site. The site does not support or provide habitat for any rare or endangered wildlife or plant species. There are no special-status bird species known to nest in the area. Only common bird species are likely to nest in the area. The project would not substantially affect any rare or endangered animal or plant species or the habitat of such species, nor substantially diminish habitat for fish, wildlife or plants, or substantially interfere with the movement of migratory fish or wildlife species. There are no adopted habitat conservation plans applicable to the project site. Therefore, the proposed project would have a *less than significant* impact on biological resources.

Impact BI-2: The proposed project would not conflict with the City's local tree ordinance. (Less than Significant)

The San Francisco Planning Department, Department of Building Inspection (DBI), and Department of Public Works (DPW) have established guidelines to ensure that legislation adopted by the Board of Supervisors governing the protection of trees is implemented. The DPW Code Section 8.02-8.11 requires disclosure and protection of Landmark, Significant, and Street trees, collectively "protected trees" located on private and public property. A Landmark Tree has the highest level of protection and must meet certain criteria for age, size, shape, species, location, historical association, visual quality, or other contribution to the city's character and have been found worthy of Landmark status after public hearings at both the Urban Forestry Council and the Board of Supervisors. A Significant tree is either on property under the jurisdiction of the DPW, or on privately owned land within 10 feet of the public-right-of-way, that is greater than 20 feet in height or which meets other criteria.

The San Francisco Board of Supervisors adopted legislation that amended the City's Urban Forestry Ordinance, DPW Code Sections 801 et seq., to require a permit from the Department of Public Works to remove any protected trees.¹¹⁴ Protected trees include landmark trees, significant trees, or street trees located on private or public property anywhere within the limits of the City and County of San Francisco.

A Tree Disclosure Statement prepared for the project in October 2012 noted that there are no landmark or significant trees on the project site.¹¹⁵ Although there are five existing street trees along 9th Street and Mission Street, these trees would not be

¹¹⁴ Board of Supervisors, Ordinance No. 17-06, amending Public Works Code Sections 801, et seq.

¹¹⁵ Feasibility of Tree Planting or Removal. October 1, 2012. This document is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

removed by the project. The Tree Disclosure Affidavit identifies ordinances regarding protected trees and requirements for existing or new trees. The DPW Code Section 8.02-8.11 requires disclosure and protection of the five existing trees and indicates they must be shown on approved site plans. A tree protection plan would be prepared by an International Society of Arboriculture (ISA) Certified Arborist and implemented during construction to address construction activity that may occur within the dripline of the existing trees. In addition, *Planning Code* Section 138.1 requires planting of new street trees for each 20 feet of frontage of the newly constructed property along each street or alley. The ordinance would require a total of 14 street trees for the project. As shown on **Figure 8**, the proposed project would retain the five existing street trees at the site and plant five new street trees. It is infeasible to plant the remaining four required street trees due to Department of Public Works restrictions, so the project sponsor requested a waiver from the Planning Department. The Zoning Administrator issued a waiver allowing the project sponsor to plant landscaping instead of the four required street trees.¹¹⁶ The new trees and landscaping would be planted in accordance with the DPW Code, and the proposed project would result in a *less than significant* impact on landmark, significant, and street trees.

Impact BI-3: The proposed project would not have a potentially significant impact on migratory species. (Less than Significant)

The proposed project would not remove any street trees and there are no other trees or landscaping on the project site. Migratory and non-migratory birds may nest in ornamental and/or street trees in urban environments. The street trees may be used by nesting birds and could be disturbed by project construction. Nesting birds and their nests and eggs are fully protected by Fish and Game Code Sections 3503 and 3503.5 and the federal Migratory Bird Treaty Act (MBTA) which makes it unlawful to harm migratory birds and their nests, including disrupting trees which may be used by migratory bird species. In addition, the street trees are located on a busy, urban street. Therefore, any birds that would nest in the trees would likely not be disturbed by the noise generated during the construction of the project or operational noise added by the project. In view of the above, the proposed project would have a *less than significant* impact on nesting birds.

The San Francisco Planning Commission adopted Standards for Bird-Safe Buildings, and Section 139 of the *Planning Code*, to reduce risk from new structures to birds, which became effective on November 6, 2011. “Bird-hazards” are considered to be project

¹¹⁶ Feasibility of Tree Planting or Removal. October 1, 2012. This document is available for review, by appointment in Case File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

characteristics that present the greatest risk to birds. Buildings pose a greater risk to birds if they are located within or adjacent to an Urban Bird Refuge. Urban Bird Refuges are open spaces of more than two acres, open water, or inland water bodies of more than two acres. The project is not located within a 300-foot flying distance of an Urban Bird Refuge. Another type of bird hazard is called a “bird trap,” which is a particular feature of a building that creates a hazard for birds in flight. Bird traps include large unbroken glazed segments, transparent building corners, or other features that might trick a bird into thinking it could fly through the building. The proposed project does not have any features that would pose as a bird trap. The project would conform to the *Planning Code* and the standards for Bird-Safe Buildings and would have a *less than significant* effect on birds.

Impact C-BI-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative impacts on biological resources. (Less than Significant)

All development in the vicinity of the proposed project, including the proposed project, would be required to comply with the City’s tree ordinance, the City’s Standards for Bird-Safe buildings, the MBTA, and State Fish and Game codes. Given the urban setting and with the compliance with applicable ordinances and codes, the project and other cumulative development in the area would result in a *less than significant* effect on biological resources.

Based on the discussion above, the proposed project would result in *less than significant* project-specific and cumulative impacts on biological resources.

<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>
14. 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:					

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>

The project site is not located on expansive soil, and septic tanks and/or alternative waste water disposal systems would not be required. As such, topics 14d and 14e are not applicable and not discussed in detail below.

The final geotechnical report was prepared for the project by a California-licensed geotechnical engineer.¹¹⁷ The document includes a site reconnaissance, two subsurface test borings, laboratory testing of soil samples, and a geologic and seismic hazard evaluation of the site. The purpose of the study was to evaluate subsurface conditions at the site and present geotechnical conclusions and recommendations for the proposed project. The proposed project's final building plans would be reviewed by the

¹¹⁷ Rockridge Geotechnical. Final Report Geotechnical Investigation Proposed Residential Building 1321 Mission Street. San Francisco, California. Prepared for Panoramic Interests. 1 September 2011. A copy of the report is available for review by appointment in Project File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

Department of Building Inspection (DBI), and the geotechnical investigation would be available for use by the DBI during its review.

Impact GE-1: The proposed project would not expose persons or structures to substantial, adverse seismic and geologic hazards. (Less than Significant)

The project site is located in an area that is subject to seismic activity from various fault lines. Three major faults include the San Andreas, Hayward, and Calaveras fault lines. The San Andreas Fault, at its nearest point, is 7 miles away, the Hayward Fault is 11 miles away, and the Calaveras Fault is 22 miles away. The US Geological Survey has determined that the San Francisco Bay Region has a 63 percent probability of a 6.7 or greater earthquake occurring in the next 30 years. There are no active faults on the project site itself and thus the potential for surface fault rupture is low.

Based on the San Andreas and Northern Hayward Shaking Intensity maps in the San Francisco General Plan Community Safety Element, the project site is within an area of nonstructural damage.¹¹⁸ It is anticipated that strong to very strong ground shaking would occur during a large earthquake.

Groundshaking associated with an earthquake on one of the regional faults around the project site may result in ground failure, such as that associated with soil liquefaction,¹¹⁹ lateral spreading, and differential compaction. The project site is within the designated liquefaction hazard zones shown in the Community Safety Element of the General Plan (Map 4, titled "Seismic Hazard Zones San Francisco, 2012").¹²⁰ According to an analysis performed by Rockridge Geotechnical, the loose clayey sand layer found at 39 to 45 feet below ground surface (bgs) may be susceptible to liquefaction during a moderate to large earthquake. The differential building settlement associated with liquefaction after a major earthquake would be up to ¾ inch for every 30 feet to a maximum of 2 inches of settlement overall.¹²¹

Landslides are not expected to occur on the project site or in the vicinity based on the maps in the Community Safety Element.

¹¹⁸ San Francisco Planning Department. April 2012. San Francisco General Plan: Community Safety Element. Available: http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed: 9 May 2012.

¹¹⁹ Liquefaction is a phenomenon where loose, saturated, cohesionless soil experiences temporary reduction in strength during cyclic loading such as that produced by earthquakes.

¹²⁰ City and County of San Francisco, Community Safety Element, *General Plan*, October 2012

¹²¹ Rockridge Geotechnical. Final Report Geotechnical Investigation Proposed Residential Building 1321 Mission Street. San Francisco, California. p. 8. Prepared for Panoramic Interests. 1 September 2011. A copy of the report is available for review by appointment in Project File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

The DBI would review the geotechnical report and buildings plans for the proposed project to verify compliance with the San Francisco Building Code. The potential damage to the proposed structures from geologic hazards, including liquefaction and differential settlement, would be mitigated by the implementation of the recommendations included in the geotechnical report.¹²² Any additional requirements from DBI to reduce damage to the building from geologic hazards would be incorporated into the project. With the implementation of geotechnical report recommendations, discussed in Impact GE-2 below, and DBI requirements, the impact to the proposed project from seismic ground shaking and liquefaction would be *less than significant*.

Impact GE-2: The proposed project would not result in substantial soil erosion or instability. (Less than Significant)

The soil borings conducted for the geotechnical study indicated that the top 5 to 10 feet of soil underlying the site is loose and dry sandy fill material. Below the fill is medium dense sand and sand with silt that extends 25 to 30 feet below the existing ground surface (bgs). The soil boring from location B-1 indicated that the medium dense sand is underlain by dense sand that extends to a depth of 39 feet bgs except for a thin silty clay layer between 33.5 and 35 feet. The boring from location B-2 indicated that the medium dense sand is underlain by dense to very dense sand that extends to a depth of approximately 45 feet bgs except for a thin peat layer at a depth of 32 feet.

Ground settlement on the project site could occur from excavation, shoring installation, and vibration from construction equipment and activities. Excavation for the foundation would extend 11 feet bgs to expose medium dense sand. The report recommends a mat foundation to be used to support the proposed structure. The mat foundation would be constructed on compacted native soil. The total settlement of the mat foundation designed for the project would be 1 to 2 inches. According to the geotechnical report, excavated sand from the project site would be appropriate for use as fill material if needed.

The basement wall designs are recommended to resist lateral spreading due to normal conditions or from earthquakes. During excavation, temporary shoring would be done with soldier piles with lagging and one row of tiebacks. An alternative would be to use

¹²² Rockridge Geotechnical. Final Report Geotechnical Investigation Proposed Residential Building 1321 Mission Street. San Francisco, California. Prepared for Panoramic Interests. 1 September 2011. A copy of the report is available for review by appointment in Project File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

cantilevered soldier piles. If the excavation for the proposed building is below the elevation of the adjacent building's basement slab, then the adjacent building would be underpinned.

Survey points would be established prior to excavation, which would be used to monitor the vertical and horizontal movements of the shoring and surrounding facilities during excavation. Buildings within 25 feet of the excavation would have a crack survey performed prior to beginning construction. The geotechnical report recommends that prior to construction, the project plans and specifications should be reviewed to confirm that they have properly followed the recommendations. A field engineer would be on site to compare actual with anticipated soil conditions as well as ensure that the work is performed in conformance with the geotechnical aspects of the plans and specifications.

The geotechnical report did not indicate the need for any dewatering. This is due to the depth of the groundwater at the project site. In the event on-site dewatering is necessary, the groundwater must meet specified water quality standards before it may be discharged into the sewer system as specified in Ordinance No. 199.77. The Bureau of Systems Planning, Environment, and Compliance of the San Francisco Public Utilities Commission must be notified of projects necessitating dewatering, and may require water analysis before discharge. If dewatering were necessary, the project sponsor and its contractor would comply with Ordinance No. 199.77 and would follow the geotechnical engineers' recommendations regarding dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering.

The geotechnical report concluded that the site was suitable for the proposed project. With incorporation of the geotechnical study recommendations, the proposed project would have a *less than significant* effect on soil erosion or instability.

Impact GE-3: The proposed project would not change substantially the topography or any unique geologic or physical features of the site. (No Impact)

The project would not substantially change the topography of the site as the site is currently developed with a single-story structure, and the site does not contain unique geologic or physical features. Therefore, the proposed project would have *no impact* on unique geologic features.

Impact C-GE-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative impacts related to geology, seismicity, or soils. (Less than Significant)

Geology impacts are generally site-specific and do not have cumulative effects in combination with other projects. The proposed project would not impact topographical features, or result in loss of topsoil and erosion, and thus would not have a cumulative effect related to soil erosion in conjunction with other cumulative projects described in **Section E. 1 Land Use and Land Use Planning**, page 23. All cumulative projects would be subject to the same design review and safety measures as described above for the proposed project. The DBI would review the geotechnical reports and buildings plans for each project to verify compliance with the San Francisco Building Code, which is focused on avoiding and minimizing damage to structures from geologic hazards, including liquefaction, differential settlement and lateral spreading. These projects would incorporate appropriate, standard engineering practices to ensure seismic stability, and would thus not be expected to result in cumulative impacts. Therefore, the cumulative impacts to geology, soils, and seismicity would be *less than significant*.

The proposed project would have *less than significant* project-specific and cumulative impacts related to geology, seismicity, or soils.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact	Not Applicable
15. 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"/>

<i>Topics:</i>	<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>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located within a 100-year flood hazard area. The project site is not located within an area that would be inundated during a tsunami or seiche. In addition, the area is not prone to landslides, indicating that mudflows would not occur in the area. As such, topics 15g, 15h, and 15j are not applicable and therefore not discussed in detail below.

Impact HY-1: The proposed project would not violate any water quality standards or waste discharge requirements and would result in less than significant impacts to water quality. (Less than Significant)

The project site is currently entirely covered with impervious surfaces associated with the single-story building that occupies the site. The project would replace the existing building with an 11-story residential building which would occupy the entire project parcel. Consequently, the proposed project's footprint would not result in an increase in impervious surfaces and no additional stormwater runoff would be generated.

Furthermore, as described in Impact UT-1, the project would implement a Stormwater Control Plan that would reduce the total stormwater runoff volume and peak runoff rate before it is discharged into the City's combined stormwater and sewer system. All sanitary wastewater from the proposed building and stormwater runoff from the project site would continue to flow into the City's combined stormwater and sewer system, to be treated at the Southeast Water Pollution Control Plant prior to discharge into San Francisco Bay. Treatment would be provided pursuant to the effluent discharge limitations set by the 2008 Bayside Permit National Pollutant Discharge Elimination System (NPDES) permit (NPDS Permit No. CA0037664). The project is also required to implement construction Best Management Practices (BMPs) listed on the Stormwater Pollution and Prevention Program "Checklist for Construction Management Requirements." The BMP erosion and sedimentation control measures, in coordination with City and County of San Francisco Construction Site Water Pollution Prevention Program requirements, would reduce short-term construction-related runoff impacts. The project would have a *less than significant* impact on water quality.

Impact HY-2: The proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge, or otherwise substantially alter the existing drainage pattern of the site resulting in erosion or flooding on- or off-site. (Less than Significant)

As explained above, the proposed project would not result in an increase in impervious surfaces and, therefore, would not alter the existing drainage pattern of the site. The project site is located within the Downtown San Francisco Groundwater Basin.¹²³ Groundwater is not used as a drinking water supply in the City and County of San Francisco. Groundwater was found during the boring test on the project site. The geotechnical report indicates that the groundwater level was encountered at a depth of 22 feet bgs at the time the samples were taken which corresponds to an elevation of 17.5 feet above San Francisco City Datum.¹²⁴ The elevation of groundwater found on the site is consistent with groundwater levels measured in the area. Depending on rainfall, the groundwater level may fluctuate 1 to 3 feet.

The proposed project would excavate to approximately 14 feet bgs across most of the site to accommodate the basement, and approximately 17 feet bgs in the area of the

¹²³ San Francisco Bay Regional Water Quality Control Board. 31 December 2011. Basin Plan. Available: http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml. Accessed: 9 May 2012.

¹²⁴ Rockridge Geotechnical. Final Report Geotechnical Investigation Proposed Residential Building 1321 Mission Street. San Francisco, California. Prepared for Panoramic Interests. 1 September 2011. A copy of the report is available for review by appointment in Project File No. 2011.0312E at the Planning Department, 1650 Mission Street, 4th Floor.

building elevator. The excavation would not reach the depth at which groundwater occurs on the project site (between 19 and 22 feet bgs taking into account seasonal fluctuations).

Although groundwater is not anticipated to be encountered during project construction, nonetheless, any groundwater that is encountered during construction of the proposed project would be subject to the requirements of the City's Industrial Waste Ordinance (Ordinance Number 199 77), requiring that groundwater meet specified water quality standards before it may be discharged into the sewer system. The Bureau of Systems Planning, Environment, and Compliance of the SFPUC must be notified of projects requiring dewatering, and may require water analysis before discharge. If dewatering is necessary, the final soils report required for the project would address the potential settlement and subsidence associated with the dewatering. The report would contain a determination as to whether or not a lateral movement and settlement survey should be prepared to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring surface is recommended, the Department of Public Works (DPW) would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Based on the above, the proposed project would not substantially alter existing groundwater or surface flow conditions, and impacts on groundwater and site runoff would be *less than significant*.

Impact HY-3: The proposed project would not expose people, housing, or structure, to substantial risk of loss due to flooding. (Less than Significant)

Flood risk assessment and some flood protection projects are conducted by federal agencies, including the Federal Emergency Management Agency (FEMA) and the US 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.

On August 5, 2008, the San Francisco Board of Supervisors adopted legislation to enact a Floodplain Management Ordinance to govern construction and substantial improvements in flood prone areas of San Francisco and to authorize City participation in NFIP on passage of the ordinance.¹²⁵ On March 23, 2010 the ordinance was amended to include additional construction standards and language regarding floodplain and

¹²⁵ Ordinance 188-08. File Number 080823. Floodplain Management Program. Amending the *Planning Code* to provide requirements for designating floodplains and for construction and development in floodplains. Passed by the Board of Supervisors on August 5, 2008.

flood prone area maps.¹²⁶ The Floodplain Management Ordinance provides standards for construction in floodplains.

FEMA is preparing Flood Insurance Rate Maps (FIRMs) for the City and County of San Francisco for the first time. FIRMs identify areas that are subject to inundation during a flood having a one 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”). In September 2007 FEMA published Preliminary FIRMs. FEMA has tentatively identified SFHAs along the City’s shoreline in and along the San Francisco Bay consisting of Zone A (in areas subject to inundation by tidal surge) and Zone V (areas of coastal flooding subject to wave hazards), as shown in the Preliminary FIRMs.¹²⁷

In July 2008, the Department of Public Works prepared Interim Floodplain Maps to support the implementation of the Floodplain Management Ordinance. 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. The project site is not within a flood hazard area as indicated by the Preliminary FIRM and the City’s Interim Floodplain Maps. The ground surface elevation is between 39 feet San Francisco City Datum (SFCD) at the southwest corner and 42 feet at the northeast corner. The elevation of the project site indicates a low chance for flooding. However, to ensure that flooding does not pose a hazard, the SFPUC would review the building permit application to determine the potential for flooding during wet weather. The SFPUC may require, if necessary, the inclusion of a pump station, raised elevation of entryways, and other flood control measures into the proposed project.

The project site is not within the tsunami inundation boundary, as defined on the California Emergency Management Agency Tsunami Inundation Map for Emergency Planning, San Francisco Bay Area;¹²⁸ therefore, no identified significant tsunami hazard exists at the site. A seiche is an oscillation of a water body, such as a bay, which may cause local flooding. A seiche could occur on San Francisco Bay due to seismic or atmospheric activity. However, seiches are rare and due to the site elevation, any impacts to the proposed project from a seiche are highly unlikely. The site is not susceptible to mudslides because the site and its vicinity are fully developed and are not

¹²⁶ Ordinance 56-10. File Number 100136. Floodplain Management Program. amending the Floodplain Management Ordinance. Passed by the Board of Supervisors on March 23, 2010.

¹²⁷ City and County of San Francisco, Office of the City Administrator, National Flood Insurance Program Flood Sheet. Available at: <http://www.sfgsa.org/index.aspx?page=828>. Accessed on September 5, 2012.

¹²⁸ California Emergency Management Agency, Tsunami Inundation Map for Emergency Planning, San Francisco Bay Area. Available at: http://www.consrv.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/Documents/Tsunami_Inundation_SanFranciscoBayArea300.pdf. Accessed on September 5, 2012.

in an area of erosion-prone slopes or related natural hazards. In addition, the project site does not fall within a dam failure inundation area. The proposed project would not expose the residents of the building to risk of flooding. The impact would be *less than significant*.

Impact C-HY-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative hydrology and water quality impacts. (Less than Significant)

The proposed project would result in less than significant impacts to groundwater levels and existing drainage patterns, and thus would not contribute substantially to hydrology and water quality impacts. The proposed project, as well as the cumulative development projects, on 9th Street and Mission Street fall outside the floodplain designated on the City's interim floodplain maps. Therefore, cumulative impacts related to flooding would be less than significant. In addition, the projects cumulatively could result in intensified uses and a cumulative increase in wastewater generation. The SFPUC, which provides wastewater treatment for the City, has accounted for such growth in its service projections. The cumulative development projects would be required to comply with construction-phase stormwater pollution control and dewatering water quality regulations, if necessary, similar to the proposed project. Therefore, cumulative hydrology and water quality impacts would be *less than significant*.

Based on the discussion above, the proposed project would have *less than significant* project-specific and cumulative water quality, groundwater, flooding, or erosion impacts; and would not be at risk from dam or levee failure, or from seiche, tsunami, or mudflow inundation.

<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. 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"/>

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
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"/>
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 airport land use plan area or in the vicinity of a public or private airstrip. As such, topics 16d, 16e, and 16f do not apply and therefore are not discussed in detail below.

A Phase I Environmental Site Assessment (ESA) was conducted for the project site by John Carver Consulting in March 2011.¹²⁹ The Phase I ESA was conducted to identify possible environmental concerns regarding potential on-site sources of hazardous materials and potential off-site sources that might affect soil and/or groundwater quality at the site. The San Francisco Department of Public Health, Environmental Health Section-Site Assessment Mitigation (DPH SAM) reviewed the ESA as well as the Soil Characterization Work Plan and Voluntary Remedial Action Program Soil Sampling

¹²⁹ John Carver Consulting. *Phase I Environmental Site Assessment of 104 9th Street* prepared for Patrick Kennedy Panoramic Interests, March 30, 2011. This report is available for review by appointment in Case File No. 2011.0312E at the Planning Department, Suite 400, 1650 Mission Street, San Francisco.

Report, in accordance with California Health and Safety Code, Sections 101480-101490.¹³⁰ DPH SAM has determined that no further action is required for the project site under the Voluntary Remedial Action Program. In the event site conditions change, DPH SAM may withdraw the no further action designation.

The Voluntary Remedial Action Program dictates that dust control measures shall be enforced during site construction and construction workers shall follow the site specific health and safety plan. Soil excavated during construction activities shall be characterized for disposal. The project records should include transportation and disposal records for removed soil such as manifest or bills of lading. Should an underground tank be encountered, it shall be removed under permit from the San Francisco Department of Public Health Hazardous Materials Unified Program Agency and San Francisco Fire Department.

Impact HZ-1: The proposed project would not create a significant hazard through routine transport, use, disposal, handling, or emissions of hazardous materials. (Less than Significant)

The project site, located at 1321 Mission Street, is currently occupied by a single-story commercial building. The proposed project would demolish the existing building and construct a mixed-use building with 160 dwelling units and 3,359 square feet of commercial use. Impacts related to the demolition of the existing building are discussed in Impact HZ-2 below. With respect to hazards associated with the occupancy and operation of the new building, the proposed project is a residential project with a small amount of ground floor commercial space and would involve the routine use of relatively small quantities of hazardous materials typical of these uses. The tenants and businesses in the new building would likely handle common types of hazardous materials, such as cleaners and disinfectants. These products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Most of these materials are consumed through use, resulting in relatively little waste. Businesses are required by law to ensure employee safety by identifying hazardous materials in the workplace, providing safety information to workers who handle hazardous materials, and adequately training workers. For these reasons, hazardous materials used during project operation would not pose any substantial public health or safety hazards related to hazardous materials. Thus, there would be *less than significant* impacts related to routine hazardous materials use, with development of the proposed project.

¹³⁰ San Francisco Department of Public Health, Environmental Health Section-Site Assessment Mitigation. March 8, 2012. This letter is available for review by appointment in Case File No. 2011.0312E at the Planning Department, Suite 400, 1650 Mission Street, San Francisco.

Impact HZ-2: The proposed residential and commercial project would not create a significant hazard to the public or the environment through the release of hazardous materials into the environment due to past soil and groundwater contamination. (No Impact)

Based on the Phase 1 ESA conducted for the project, a governmental database search indicated that there are no active leaking underground storage tanks (LUST) cases within 0.5 mile of the site.¹³¹ The database search listed a Historical Cleaners at 108 9th Street, which is within the historic boundaries of the site. The site was occupied in 1935 by Futterman Jacob Clothes Cleaner and in 1940 by Futterman Jacob, Tailor. The information indicates that the site was a tailor shop and no significant cleaning occurred. A historical Auto station was also located at 1299 Mission Street. The absence of any other listing for the site indicates that there are no hazardous materials related concerns regarding the property. The National Priorities List (NPL) Recovery Database, US Environmental Protection Agency (US EPA) Liens Database, and the Department of Toxic Substances and Control (DTSC) Liens Database, and the DTSC Deed Database were reviewed to determine the presence of any environmental associated liens. No liens were found in regards to the subject property. No hazardous materials sites were found on the proposed project site.

During site reconnaissance performed in the course of the Phase I ESA, John Carver Consulting observed no indication of the presence of underground storage tanks, pits, lagoons, wells, or septic tanks. There was no indication of historic or recent hazardous materials use on the project site.

According to the Phase 1 ESA, there was no evidence or documentation of chemical or hazardous material disposal on the site. However, the existing building was constructed in the 1940s. In the past, asbestos, lead, and polychlorinated biphenyls (PCBs) were commonly present in such materials as fire proofing, floor tiles, roofing tar, electrical transformers, fluorescent light ballasts, and paint. Mercury was commonly present in electrical switches and fluorescent light bulbs. According to the Phase 1 ESA, there were no PCB-containing items observed on the property. However, lead-based paint and asbestos containing materials may be present on the site. These are discussed below.

Asbestos. Due to the age of the building at the project site, there is a potential for asbestos-containing materials (ACM) to be present. ACM contain greater than 1.0

¹³¹ Environmental Data Resources Inc. 2011. 3006793.2s. March 7. Included in the *Phase I Environmental Site Assessment of 104 9th Street* prepared by John Carver Consulting for Patrick Kennedy Panoramic Interests, March 30, 2011. This report is available for review by appointment in Case File No. 2011.0312E at the Planning Department, Suite 400, 1650 Mission Street, San Francisco.

percent asbestos. Trace ACM contains less than 1.0 percent but greater than 0.1 percent asbestos. These materials may be construction debris (in which case they fall under Comprehensive Environmental Response, Compensation, and Liability Act regulatory requirements), as materials in intact buildings (in which case they fall under the Toxic Substances Control Act and National Emissions Standards for Hazardous Air Pollutants requirements), or as geological deposits, in which case they are typically regulated by local air pollution control district standards.

Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The California Legislature has vested the BAAQMD with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement. BAAQMD is to be notified 10 days in advance of any proposed demolition or abatement work. Notification includes the names and addresses of operations and persons responsible; a description and location of the structure to be demolished or altered, including size, age, and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be used; procedures to be used to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. The BAAQMD randomly inspects asbestos removal operations and would inspect any removal operation for which it has received a complaint.

The local office of the Occupational Safety and Health Administration must be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow state regulations contained in 8CCR1529 and 8CCR341.6 through 341.14, where there is asbestos-related work involving 100 square feet or more of ACM. Asbestos removal contractors must be certified as such by the Contractors State License Board. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento. The contractor and hauler of the material are required to file a hazardous waste manifest that details the hauling of the material from the project site and the disposal of it. Pursuant to California law, the San Francisco DBI would not issue the required permit until the applicant has complied with the above notice requirements. Compliance with these regulations and procedures, already established as a part of the permit review process, would ensure that potential impacts of demolition due to asbestos would be reduced to a *less than significant* level.

Lead-Based Paint (LBP). Based on the age of the building lead may be present in the interior and exterior surfaces of the existing building including paint and glazing on ceramic tiles.

Demolition of the existing structure as part of the proposed project would comply with Chapter 34, Section 3407, of the San Francisco Building Code, Work Practices for Lead-Based Paint on Pre-1979 Buildings and Steel Structures. Chapter 34 requires specific notification and work standards and identifies prohibited work methods and penalties. This would apply where there is any work that may disturb or remove lead based paint (LBP) on any building built on or before December 31, 1978, or on any steel structures where LBP would be disturbed or removed and where exterior work would disturb more than 100 square feet or 100 linear feet of LBP.

Section 3407 applies to buildings or steel structures built before 1979, which are assumed to have LBP on their surfaces unless a certified lead inspector assessor tests surfaces for lead and determines it is not present, according to the definitions of Section 3407. The ordinance contains performance standards, including establishment of containment barriers at least as effective at protecting human health and the environment as those in the Department of Housing and Urban Development Guidelines (the most recent guidelines for evaluation and control of LBP hazards). The ordinance also identifies prohibited practices that may not be used when disturbing or removing LBP. Any person performing work subject to the ordinance should, to the maximum extent possible, protect the ground from contamination during exterior work, should protect floors and other horizontal surfaces from work debris during interior work and should make all reasonable efforts to prevent migration of lead-paint contaminants beyond containment barriers during the course of the work. Cleanup standards require the removal of visible work debris, including the use of a high efficiency particulate air filter vacuum following interior work.

Chapter 34, Section 3407, also includes notification requirements, information the notice should contain, and requirements for signs. Notification includes notifying project construction contractors of any paint-inspection reports that verify the presence or absence of LBP in the regulated area of the proposed project. Before work, the responsible party must provide written notice to the Director of the DBI of the following:

- Location of the project;
- The nature and approximate square footage of the painted surface being disturbed or removed;
- Anticipated job start and completion dates for the work;

- Whether the responsible party has reason to know or presume that LBP is present;
- Whether the building is residential or nonresidential, owner-occupied or rental property, approximate number of dwelling units, if any;
- The dates that the responsible party has or would fulfill any tenant or adjacent property notification requirements; and
- The name, address, telephone number, and pager number of the party who would perform the work.

Further noticing requirements include posting signs when containment is required, the landlord notifying tenants of the impending work, the availability of a pamphlet about lead in the home, notice by contractor of the early commencement of work, and notice of lead-contaminated dust or soil, if applicable. The ordinance contains provisions regarding inspection and sampling for compliance by the DBI and enforcement and describes penalties for noncompliance.

The regulations and procedures established by the San Francisco Building Code would ensure that potential impacts from LBP disturbance during construction would be reduced to a *less than significant* level. The demolition of the building and disturbance of project site soils during the construction of the proposed project would not create a significant hazard to the public or the environment. There would be a *less than significant* impact.

Impact HZ-3: The project site is located within one-quarter mile of a school but would not emit hazardous emissions or handle hazardous material within the vicinity of the school. (Less than Significant)

The proposed project is an 11-story residential building, ~~intended as student housing,~~ with ground floor commercial space. As explained in Impact HZ-1, the commercial and residential building would not involve routine use of hazardous materials. As such hazardous material would not be transported to and from the site. Several schools and day care centers are located within 0.25 mile of the project site, including Marin Day School, Presidio Knolls School, and Love and Learn Nursery School. However, these schools and day care centers would not be subject to release of hazardous emissions due to the fact that the project would not emit or handle any hazardous materials. With respect to the handling of LBP and asbestos containing materials during the demolition of the existing building, as described in Impact HZ-2 above, the project would comply with state, BAAQMD, and City regulations governing the handling and disposal of these materials and emissions would not be generated that could adversely affect the

nearby schools or the public for the reasons discussed above. The proposed project would have a *less than significant* effect on the public, schools, and day care centers in the area related to the routine transport, use, disposal, handling, or emissions of hazardous materials.

Impact HZ-4: The proposed project would not impair or interfere with an adopted emergency response or evacuation plan. (Less than Significant)

The project is not expected to interfere with the City and County of San Francisco Emergency Response Plan. Although occupants of the proposed building would contribute to congestion if an emergency evacuation of the Downtown area was required, the project sponsor would develop an evacuation and emergency response plan in consultation with the Mayor's Office of Emergency Services to ensure coordination between San Francisco's emergency planning activities and the project sponsor's plan to provide for building occupants in the event of an emergency. The project sponsor's plan would be reviewed by the Office of Emergency Services and implemented before the Department of Building Inspection issued final building permits. For reasons discussed above, the project would have a *less than significant* effect related to emergency responses.

Impact HZ-5: The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving fires. (Less than Significant)

The proposed project does not contain any features that would result in additional exposure of people or structures to a significant risk of loss, injury, or death involving fires. San Francisco ensures fire safety primarily through provisions of the Building Code and the Fire Code. The project is required to submit the final building plans to the San Francisco Fire Department (as well as the DBI) for review, to ensure conformance with the provisions. The proposed project would conform to these standards, including development of an emergency procedure manual and an exit drill plan. In this way potential fire hazards (including those associated with hydrant water pressure and emergency access) would be addressed during the permit review process. Therefore, the proposed project would have a *less than significant* impact related to fire safety.

Impact C-HZ-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than

significant cumulative hazards and hazardous materials impacts. (Less than Significant)

In general, impacts from hazardous materials are site-specific and are unlikely to result in cumulative impacts. Overall, the project would not contribute considerably to cumulative effects related to hazardous materials. Cumulative development projects detailed in **Section E. 1 Land Use and Land Use Planning**, page 23, would be required to follow applicable regulations for hazardous materials disposal during demolition, construction, and implement site remediation mitigations where appropriate.

Furthermore, the occupancy and operations of the cumulative projects would involve substantially similar amounts and types of hazardous materials as the proposed project. Therefore, cumulative development would result in a *less than significant* hazards and hazardous materials impact.

Based on the analysis above, project-specific and cumulative impacts related to hazards from or on the proposed project would be *less than significant*.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
17. 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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All land in San Francisco, including the project site, is designated Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology (CDMG) under the Surface Mining and Reclamation Act of 1975 (CDMG, Open File Report 96-03 and Special Report 146 Parts I and II). This designation indicates that there is inadequate information available for assignment to any other MRZ and thus the site is not a designated area of significant mineral deposits. Since the project site is already developed, future evaluation or designation of the site would not affect or be affected by

the proposed project. There are no operational mineral resource recovery sites in the project area whose operations or accessibility would be affected by the construction or operation of the proposed project. Therefore, topics 17a and 17b are not applicable to the proposed project and are not further discussed in this section.

Impact ME-1: The proposed project would consume additional energy, but not in large amounts or in a wasteful manner. (Less than Significant)

The proposed project's commercial and residential uses would not consume large amounts of fuel, water, or energy. Electricity would be used to provide lighting and to operate the mechanical systems in the proposed building. Natural gas would be used in the building boilers to provide hot water as well as in the kitchens of the 160 dwelling units and in the ground floor commercial space. As discussed under **Section 8, Greenhouse Gas Emissions**, new buildings in San Francisco are required to conform to energy conservation standards specified by the San Francisco Green Building Ordinance (SFGBO), which would require the project to exceed energy and water efficiency standards above and beyond Title 24 of the California Building Code. Documentation showing compliance with these standards is submitted with the application for the building permit. The SFGBO and Title 24 are enforced by the DBI. Therefore, the proposed project would not cause a wasteful use of energy and water, and the effects related to energy consumption would be *less than significant*.

Impact C-ME-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the vicinity would result in less than significant cumulative impacts to mineral and energy resources. (Less than Significant)

There are no known minerals that exist at the project site, and the proposed project would not entail excavating or grading that could disturb underlying mineral resources. Therefore, the proposed project would not contribute to any cumulative impact on mineral resources. The project-generated demand for electricity would be negligible in the context of overall demand within San Francisco, the greater Bay Area, and the State, and would not in and of itself require any expansion of power facilities. The City plans to reduce greenhouse gas emissions (GHGs) to 25 percent below 1990 levels by the year 2017 and ultimately reduce GHGs to 80 percent below 1990 levels by 2050 which would

be achieved by implementation of energy efficiency strategies.¹³² Therefore, the energy demand associated with the project would result in a less than significant impact and would not substantially contribute to a cumulative impact on existing or proposed energy supplies or resources. Overall, the proposed project would result in *less than significant* cumulative impacts on minerals and energy resources.

For the reasons discussed above, the proposed project would result in *less than significant* project-specific and cumulative impacts on mineral and energy resources.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
18. 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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined by Public Resources Code Section 4526)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

¹³² San Francisco Environment Code. Chapter 9 Greenhouse Gas Emissions Targets and Departmental Action Plans. May 13, 2008.

The project site is located in the City of San Francisco, an urban area, and therefore not agricultural in nature. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies the site as Urban and Built-Up Land. The site is not under a Williamson Act contract or zoned as forest land or timberland. Therefore, the proposed project would not convert any prime farmland, unique farmland, or Farmland of Statewide Importance to non-agricultural use, would not conflict with agricultural zoning or Williamson Act contracts, and would not lead to loss or conversion of forest land. As the project would not result in the loss of forest land or conversion of forest land to non-forest use, it would not conflict with any of the policies of the San Francisco Urban Forestry Ordinance.¹³³ Therefore, topics 18a through 18e are not applicable to the proposed project.

<i>Topics:</i>	<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>
19. 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As with any project that involves ground disturbance, construction activities associated with the proposed project have the potential to result in significant impacts to any below ground archaeological resources. Any potential adverse effect to archaeological resources resulting from soils disturbance would be reduced to less than significant by implementation of the proposed mitigation measures, which address the accidental

¹³³ San Francisco Public Works Code, Article 16 Urban Forestry Ordinance. May 19, 1995.

discovery of archaeological resources. Therefore, the proposed project would not result in a significant impact to archaeological resources through the elimination of important examples of major periods of California history or prehistory.

The proposed project has the potential to result in significant air quality impacts to sensitive receptors on and off site. Any potential adverse air quality effects to sensitive receptors from the proposed project would be reduced to less than significant by implementation of the proposed mitigation measures, which address diesel generator emissions and ventilation within the proposed building. Therefore, the proposed project would not result in a significant impact to air quality.

Both long-term and short-term environmental effects associated with the proposed project would be less than significant, as discussed under each environmental topic.

Each environmental topic area includes an analysis of cumulative impacts based on land use projections, compliance with adopted plans, statutes, and ordinances, and currently proposed projects. No significant cumulative impacts from the proposed project have been identified.

F. MITIGATION MEASURES AND IMPROVEMENT MEASURES

The following mitigation measures and improvement measures have been identified to reduce potentially significant environmental impacts resulting from the proposed project to less than significant levels. Accordingly, the project sponsor has agreed to implement all mitigation measures described below.

Mitigation Measure M-CP-2 – Archaeological Monitoring

The project sponsor shall retain the services of an archaeological consultant from the pool of qualified archaeological consultants maintained by the Planning Department archaeologist. The archaeological consultant shall undertake an archaeological monitoring program. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer (ERO) for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of 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 to a less than significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).

Archaeological monitoring program (AMP)

The archaeological monitoring program (AMP) shall, at a minimum, include the following provisions:

The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the project archaeologist shall determine what project activities shall be archaeologically monitored. In most cases, any soils disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the potential risk these activities pose to archaeological resources and to their depositional context;

The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;

The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the ERO until the ERO has, in consultation with the archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;

The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;

If an intact archaeological deposit is encountered, all soils disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/ excavation/ pile driving/ construction crews and heavy equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant shall, after

making a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, present the findings of this assessment to the ERO.

If the ERO in consultation with the archaeological consultant determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

The proposed project shall be re-designed so as to avoid any adverse effect on the significant archaeological resource; or

An archaeological data recovery program shall be implemented, unless the ERO determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

If an archaeological data recovery program is required by the ERO, the archaeological data recovery program shall be conducted in accordance with an archaeological data recovery plan (ADRP). The project archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP. The archaeological consultant shall prepare a draft ADRP that shall be submitted to the ERO for review and approval. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the ADRP shall include the following elements:

Field Methods and Procedures. Descriptions of proposed field strategies, procedures, and operations.

Cataloguing and Laboratory Analysis. Description of selected cataloguing system and artifact analysis procedures.

Discard and Deaccession Policy. Description of and rationale for field and post-field discard and deaccession policies.

Interpretive Program. Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.

Security Measures. Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.

Final Report. Description of proposed report format and distribution of results.

Curation. Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Final Archaeological Resources Report. The archaeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the draft final report.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound, one unbound and one unlocked, searchable PDF copy of the FARR on CD along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

Mitigation Measure M-CP-4 – Treatment of Human Remains

Human Remains, Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal Laws, including immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most

Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects.

Mitigation Measure M-AQ-2 – Construction Emissions Minimization

The project sponsor will be required to comply with the following measures to reduce potential health risks to nearby sensitive receptors during construction:

A. *Construction Emissions Minimization Plan*. Prior to construction, the project sponsor shall submit a Construction Emissions Minimization Plan (Plan) to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist prior to the commencement of construction activities. The Plan shall detail project compliance with the following 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 meet the following requirements:
 - (a) Where access to alternative sources of power is available, portable diesel engines shall be prohibited;
 - (b) All off-road equipment shall have:
 - (i) Engines that meet or exceed either USEPA or ARB Tier 2 off-road emission standards, and
 - (ii) Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS).¹³⁴
 - (c) Exceptions:
 - (i) Exceptions to A(1)(a) *may* be granted if the project sponsor has submitted information providing evidence to the satisfaction of

¹³⁴ Equipment with engines meeting Tier 4 Interim or Tier 4 Final emission standards automatically meet this requirement, therefore a VDECS would not be required.

the ERO that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply. Under this circumstance, the sponsor shall submit documentation of compliance with A(1)(b) for onsite power generation.

- (ii) Exceptions to A(1)(b)(ii) *may* be granted if the project sponsor has submitted information provide evidence to the satisfaction of the ERO that a particular piece of equipment or vehicle with an ARB Level 3 VDECS is: (1) technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use diesel vehicles or engines that are not retrofitted with an ARB Level 3 VDECS and the sponsor has submitted documentation to the ERO that the requirements of this exception provision apply. If granted an exception to A(1)(b)(ii), the project sponsor must comply with the requirements of A(1)(c)(iii).
- (iii) If an exception is granted pursuant to A(1)(c)(ii), the project sponsor shall provide the next cleanest piece of off-road equipment as provided by the step down schedules in **Table 9** below.

Table 9
Off-Road Equipment Compliance Step Down Schedule*

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

* *How to use the table: For example, if the requirements of (A)(1)(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 2, then Compliance Alternative 3 would need to be met.*

** *Alternative fuels are not a VDECS*

2. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than *two* minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, and Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.
 3. The project sponsor shall require that construction operator properly maintain and tune equipment in accordance with manufacturer specifications.
 4. 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. Off-road equipment descriptions and information may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For the VDECS installed: 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, reporting shall indicate the type of alternative fuel being used.
 5. The Plan shall be kept on-site and available for review by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the Plan and a way to request a copy of the Plan. The project sponsor shall provide copies of the Plan as requested.
- B. *Reporting.* Monthly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include actual amount of alternative fuel used.

Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include actual amount of alternative fuel used.

C. *Certification Statement and On-site Requirements.* Prior to the commencement of construction activities, the project sponsor must certify (1) Compliance with the Plan, and (2) All applicable requirements of the Plan have been incorporated into contract specifications.

Mitigation Measure M-AQ-4a – Best Available Control Technology for Diesel Generators

All diesel generators shall have engines that (1) meet Tier 4 Final or Tier 4 Interim emission standards, or (2) meet Tier 2 emission standards and are equipped with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS).

Mitigation Measure M-AQ-4b – Air Filtration and Ventilation Requirements for Sensitive Land Uses

Air Filtration and Ventilation Requirements for Sensitive Land Uses. Prior to receipt of any building permit, the project sponsor shall submit a ventilation plan for the proposed building(s). The ventilation plan shall show that the building ventilation system removes at least 80 percent of the outdoor PM_{2.5} concentrations from habitable areas and be designed by an engineer certified by ASHRAE, who shall provide a written report documenting that the system meets the 80 percent performance standard identified in this measure and offers the best available technology to minimize outdoor to indoor transmission of air pollution.

Maintenance Plan. Prior to receipt of any building permit, the project sponsor shall present a plan that ensures ongoing maintenance for the ventilation and filtration systems.

Disclosure to buyers and renters. The project sponsor shall also ensure the disclosure to buyers (and renters) that the building is located in an area with existing sources of air pollution and as such, the building includes an air filtration and ventilation system designed to remove 80 percent of outdoor particulate matter and shall inform occupants of the proper use of the installed air filtration system.

Improvement Measure I-TR-A – Construction Management

As an improvement measure to minimize the less than significant construction disruption of the general traffic flow on adjacent streets during the AM and PM peak periods, truck movements and deliveries should be limited during peak

hours (generally 7 to 9 AM and 4 to 6 PM, or other times, as determined by SFMTA/TASC).

Improvement Measure I-TR-B – Construction Traffic Control

As an improvement measure to help reduce the less than significant construction worker parking and general construction disruption, the project sponsors would be required to coordinate its construction schedule with SFMTA and DPW in order to minimize construction-related impacts to the transportation network. The project construction traffic control plan (TCP) should encourage carpooling and transit use for construction workers, and include informing the public and nearby businesses (generally achieved through written or electronic notices) on construction schedules and activities. The construction for the proposed project is expected to last between 12 and 14 months and, as a result, would be considered a temporary impact.

Mitigation Measure M-NO-2 – Reduction of Construction Noise

The following measures would mitigate construction noise impacts on sensitive receptors:

- Construction equipment shall be properly maintained in accordance with manufacturers' specifications and shall be fitted with the best available noise suppression devices (e.g., mufflers, silencers, wraps). All impact tools shall be shrouded or shielded, and all intake and exhaust ports on power equipment shall be muffled or shielded.
- Construction equipment shall not idle for extended periods of time near noise-sensitive receptors.
- Stationary equipment (compressors, generators, and cement mixers) shall be located as far from sensitive receptors as feasible. Sound enclosures shall be used during noisy operations on-site.
- Temporary barriers (noise blankets or wood paneling) shall be placed around the construction site parcels and, to the extent feasible, they should break the line of sight from noise sensitive receptors to construction activities. For temporary sound blankets, the material shall be weather and abuse resistant, and shall exhibit superior hanging and tear strength with a surface weight of at least 1 pound per square foot. Placement, orientation, size, and density of acoustical barriers shall be reviewed and approved by a qualified acoustical consultant.

- Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
 - The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with the adjacent noise sensitive receptors so that construction activities can be scheduled to minimize noise disturbance.
 - Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.
 - Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
-

G. PUBLIC NOTICE AND COMMENT

On January 3, 2012, the Planning Department mailed a Notice of Project Receiving Environmental Review to property owners within 300 feet of the project site, adjacent tenants, and other potentially interested parties. Two comments were received requesting notification of the availability of environmental documents. Although one commenter expressed concern over the lack of parking in the project, no environmental issues were raised by the public.

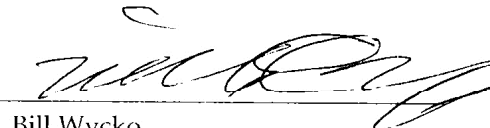
H. DETERMINATION

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

November 20, 2012



Bill Wycko
Environmental Review Officer
for
John Rahaim
Director of Planning

I. Initial Study Preparers

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