

SAN FRANCISCO PLANNING DEPARTMENT

Mitigated Negative Declaration

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Date:	October 18, 2017; Amended November 10, 2017 (Amendments to the	U
	Initial Study/Preliminary Mitigated Negative Declaration are shown	R
	as deletions in strikethrough and additions in <u>double underline</u>)	4
Case No.:	2014.0408E	E
Project Title:	1055 Market Street	4
Zoning:	Downtown General Commercial (C-3-G) Zoning District	Р
	90-X Height and Bulk District	lr
Block/Lot:	3703/066	4
Lot Size:	8,250 square feet (0.19 acre)	
Project Sponsor	Jay Singh, Paradigm Hotels Group	
	650-873-3571	
Lead Agency:	San Francisco Planning Department	
Staff Contact:	Justin Horner – 415-575-9023	
	justin.horner@sfgov.org	

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

Reception: 415.558.6378

Fax: 415.558.6409

Planning Information: **415.558.6377**

PROJECT DESCRIPTION:

The 1055 Market Street Project (proposed project) includes construction of a new 10-story, 90- foottall hotel building with ground floor retail space, following demolition of a two-story vacant commercial building on the site with approximately 16,000 gross square feet (gsf) of retail area. The project site is located within the Downtown Plan Area at 1055 Market Street (Assessor's Block 3703, Lot 066) in the South of Market neighborhood of San Francisco. The 8,250-square-foot rectangular parcel is a through lot located mid-block between 6th Street and 7th Street with frontage on both Stevenson and Market Streets.

The proposed hotel building would include a lobby, a basement, ground-floor retail space, ground-floor privately owned public open space (POPOS), 160 hotel rooms, and a roof terrace. The ground-floor retail space would be located along and accessible from Market Street. The hotel lobby would be located on Stevenson Street and accessible from both Market Street and Market Street. The proposed project would include no on-site vehicle parking. The proposed project would include Class 1 bicycle storage for six bicycles on the basement floor and eight Class 2 bicycle parking spaces along Stevenson Street. The depth of excavation would be 16 feet below ground surface (bgs). A total of approximately 1,200 cubic yards (cy) of material would be exported off-site.

FINDING:

This project would 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 Section F, Mitigation Measures of the attached IS. Mitigated Negative Declaration November 13, 2017 CASE NO. 2014.0408E 1055 Market 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.

Jisa Ats

LISA GIBSON Environmental Review Officer

11/13/17

Date of Adoption of Final Mitigated Negative Declaration

cc: Jay Singh – Paradigm Hotels Group – Project Sponsor
 Chloe V. Angelis – Ruben, Junius & Rose, LLP
 Justin Horner – Current Planning Division
 Master Decision File

SAN FRANCISCO PLANNING DEPARTMENT

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Initial Study 1055 Market Street Project Planning Department Case No. 2014.0408E

A. PROJECT DESCRIPTION

Project Location and Site Characteristics

The project site is in the Downtown Plan Area of San Francisco at 1055 Market Street, Block 3703/Lot 066, in San Francisco's South of Market neighborhood. Figure 1 shows the project location. The 8,245-square-foot rectangular parcel is a through lot located mid-block between 6th Street and 7th Street with frontage on both Stevenson and Market Streets. Adjacent structures include two seven-story buildings, one located to the southwest and the other to the northeast.

The project site is currently occupied by a two-story vacant commercial building built in 1981 with approximately 16,000 gross square feet (gsf) of retail area. The project site is located within the Market Street Theatre and Loft Historic District, but the existing structure is considered a non-contributor to the Historic District and ineligible for the California Register of Historical Resources.¹ Current pedestrian access to the building is located on Market Street, and a service entrance is located on Stevenson Street. No trees are located on the project site. Three street trees are located along the sidewalk on Market Street. The project site does not currently have parking facilities.

The project site is within the C-3-G Downtown General Commercial District and a 90-X Height & Bulk District. The C-3-G District runs along Market Street in the western portion of downtown San Francisco from Van Ness Avenue to 5th Street. It is composed of a variety of uses including retail, office, hotels, entertainment, clubs and institutions, and high-density residential. The 90-X Height and Bulk District allows for buildings up to 90 feet in height with no bulk restrictions.

Project Characteristics

The project includes the demolition of the existing structure on the project site and construction of a new 10-story, 90-foot-tall hotel building. The hotel would include a lobby, a basement, ground-floor retail space, ground-floor privately owned public open space (POPOS), 160 hotel rooms, and a roof terrace. The project's characteristics are summarized in Table 1. Figure 1 illustrates the site plan, and Figure 2 through Figure 6 illustrate the floor plans.

¹ Bloomfield, Anne. 1986. Market Street Theatre and Loft Historic District, National Register of Historic Places Nomination Form.

Use Characteristic	Area/Amount
Hotel Rooms	160 rooms
Hotel and Amenity Space	71,534 gross square feet (gsf)
Commercial Retail	2,187 gsf
Total Building	73,721 gsf
Other Project Elements	
Roof Terrace	2,305 gsf
Privately Owned Public Open Space	2,266 gsf
Bicycle Parking (Class 1) ²	six spaces
Sidewalk Bicycle Parking (Class 2) ³	eight spaces
Loading Spaces	3 on-street passenger loading spaces
Building Height	90 feet (94 feet including parapet and 106.5 feet including elevator equipment)
Number of Stories	10 stories + 1 subterranean level
Street Trees	3 existing street trees + 2 new street trees

Table 1: Project Characteristics

Source: Stanton Architecture. 2016. 1055 Market Street Concept Package. December 13; CHS Consulting Group. 2015. Transportation Impact Study. November 2015.

Subterranean Level. The subterranean level would include one level up to 12 feet 7 inches in depth below ground surface (bgs). This level would accommodate a breakfast area, Class 1 bicycle storage for six bicycles, electrical rooms, water and fire pump rooms, housekeeping facilities, telecommunication facilities, restrooms, and trash and storage areas.

Ground Floor. The ground floor of the project would be divided between hotel (including POPOS) and retail uses. Approximately 2,187 gsf of ground-floor retail would face Market Street, and an approximately 1,100 gsf double-height hotel lobby would face Stevenson Street. The hotel lobby would be open to the public, as would the approximately 1,100 gsf of POPOS located behind the lobby on the ground floor. The ground floor would also include three hotel rooms, hotel operation space, and storage. In addition to the Stevenson Street entrance, the hotel would be accessible from Market Street through a dedicated hotel entrance.

Level 2. The 6,276-gsf second level holds 13 guest rooms. This level is smaller than upper levels due to the double-height retail and hotel lobby on the ground level of the structure.

Case No. 2014.0408E

² Class one bicycle spaces are spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, non-residential occupants, and employees. Planning Code section 155.1(a).

³ Class two bicycle spaces are "bicycle racks located in a publicly-accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use. Planning Code section 155.1 (a).

Level 3-10. Levels 3 through 10 of the project encompass 6,953 square feet each. Each floor holds 18 hotel rooms.

Roof Terrace. The project would also include more than 2,305 square feet of open space on the roof terrace accessible to hotel guests. The terrace would be intended for passive use. Noise-intensive activities such as events and food or drink service, or live or amplified music, would be prohibited in this space.

Parking and Loading. Off-street parking spaces would not be provided. An on-street 60-foot loading zone with three 30-foot loading spaces would be located on Stevenson Street to accommodate passenger loading for hotel guests arriving and departing by car subject to San Francisco Municipal Transportation Agency (SFMTA) approval. Off-street loading space for freight and delivery-related activities would not be provided.

Six Class 1 bicycle parking spaces would be included in the basement level of the hotel. Eight Class 2 bicycle spaces would be located in front of the hotel along Market Street. The location of Class 2 bicycle parking spaces would be subject to review and approval by the SFMTA.

Figure 7 illustrates the north and south building elevations, respectively.

Streetscape. The project would include new streetscape features within the sidewalk areas along Stevenson Street. Two new street trees would be planted along the north side of Stevenson, pursuant to San Francisco Public Works (Public Works) review and approval. Section 138.1 of the San Francisco *Planning Code* requires one street tree for every 20 feet of frontage for new construction, with credit given for existing trees. The project includes 100 feet of street frontage with three existing street trees on Market Street. A new bike rack would be placed on the sidewalk on the south side of Market Street to accommodate eight Class 2 bicycle parking spaces.

The project is subject to the *Better Market Street* requirements as specified in *Planning Code* Section 138.1. Because the existing sidewalk widths, paved areas, and other streetscape elements along Market Street and Stevenson Street are currently in compliance with the specific sidewalk requirements of *Better Market Street*, the project does not include modification of these current sidewalk features. The six-foot-wide sidewalk along the north side of Stevenson Street would be replaced and repaved during construction of the project.

Construction

The depth of excavation would be 4 feet below the subterranean level (for a total excavation depth of 16 feet bgs). Drilled piers, a mat foundation, or a combination of both may be used. A total of approximately 1,200 cubic yards (cy) of material would be exported off-site.

Construction would occur in approximately five overlapping phases: (1) demolition (two weeks); (2) shoring and excavation (two months); (3) foundation construction (one month); (4)

building construction (15 months); and (5) installation of facades and exterior features (three months). In total, construction would be expected to take approximately 18 months.

Project Approvals

The applicable *Planning Code* section is cited at the end of each approval item below. The following actions would be required by the Planning Commission:

- Section 309 Downtown Project Authorization (*Planning Code* section 309);
- A Variance for the width of the bay projection requirements (*Planning Code* section 136(c)(2));
- An exception for Wind comfort criteria (*Planning Code* sections 148 and 309).
- Conditional Use Authorization to allow the development of a hotel within the C-3-G District (*Planning Code* sections 303(c) and 303(g)).

The following actions would be required by other City Departments:

- Demolition and Building Permits (Department of Building Inspection) for the demolition of the existing buildings and construction of the new structure.
- Street and Sidewalk Permits (Bureau of Streets and Mapping, Public Works) for modifications to street trees and curb cuts.
- Approval for replacing three street parking spaces with a 60-foot-long passenger loading space along Stevenson Street (SFMTA).
- Stormwater Control Plan (San Francisco Public Utilities Commission), because the project would result in ground disturbance of an area greater than 5,000 sf.

Approval Action. Approval of the Section 309 Downtown Project Authorization by the San Francisco Planning Commission is the Approval Action for the project. The Approval Action date would establish the start of the 30-day appeal period for appeal of the Final Mitigated Negative Declaration to the Board of Supervisors pursuant to Section 31.04(h) of the San Francisco Administrative Code.

In the absence of an appeal, the Mitigated Negative Declaration shall be made final, subject to necessary modifications, after 20 days from the date of publication of the PMND.

B. PROJECT SETTING

Land uses in the immediate area of the project site include a mix of low- and mid-rise mixeduse commercial buildings, tourist and residential hotels, multifamily housing, entertainment uses, and government institutions. The project site is bounded by Market Street to the north, Stevenson Street to the south, and seven-story buildings to the east and west. The properties in the vicinity of the project site include a seven-story commercial/retail and office building (1049-1053 Market Street) to the northeast currently occupied by a smoke shop and a falafel eatery at the ground level with offices and live/work units above; a seven-story commercial/retail building with office space on upper levels (1059-1061 Market Street) to the southwest; a surface parking lot (1066 Mission St) to the southeast, across Stevenson Street; and a two-story vacant commercial building to the northwest, across Market Street (an application has been filed to demolish the existing building and construct a new mixed-use development project).

The closest public open space to the project site is United Nations Plaza, located approximately 500 feet southeast of the 1055 Market Street entrance. This plaza is owned by the City and County of San Francisco and is generally bounded by Market Street to the south, McAllister Street to the north, Seventh Street to the east, and Hyde Street to the west. The plaza consists of a 2.6-acre pedestrian mall with seating, lawns, fountain, public art installations, trees, and small gardens with a clear view of City Hall. The plaza is used twice a week for the Heart of the City Farmers' Market and is near the San Francisco Public Library, Asian Art Museum, various governmental institutions, offices, and numerous public transportation stops and stations.

In addition to the mixed-uses in the area, described above, the project site is also near live performance venues (Golden Gate, Warfield, and Strand Theaters); schools (De Marillac Middle School, located 0.20 mile northwest of the project site; and San Francisco City Academy, located 0.20 mile north of the project site; centers of worship; small stores; the Civic Center station for the Bay Area Rapid Transit (BART) and Market Street San Francisco Municipal Railway (Muni) light-rail and bus lines; Bay Area Bike Share stations; and parking garages. Interstate 80 (I-80) is approximately 0.5 mile south of the project site.

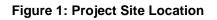


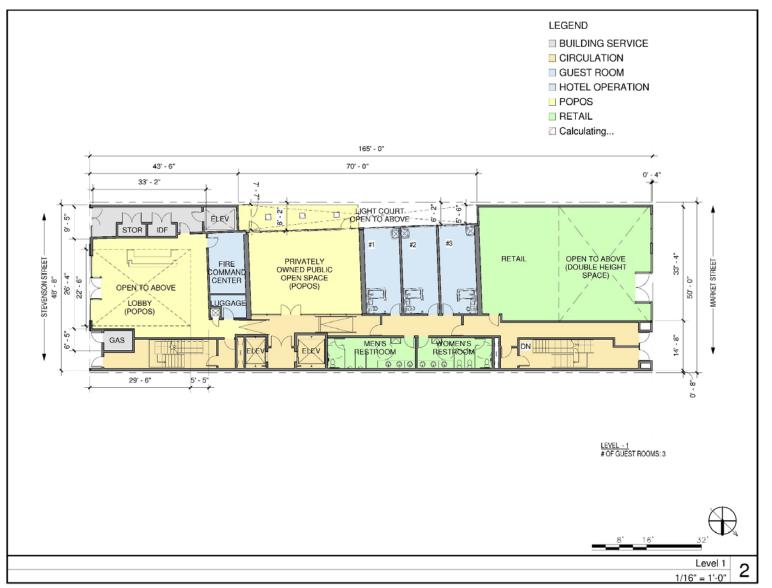


Figure 2: Basement Floor Plan



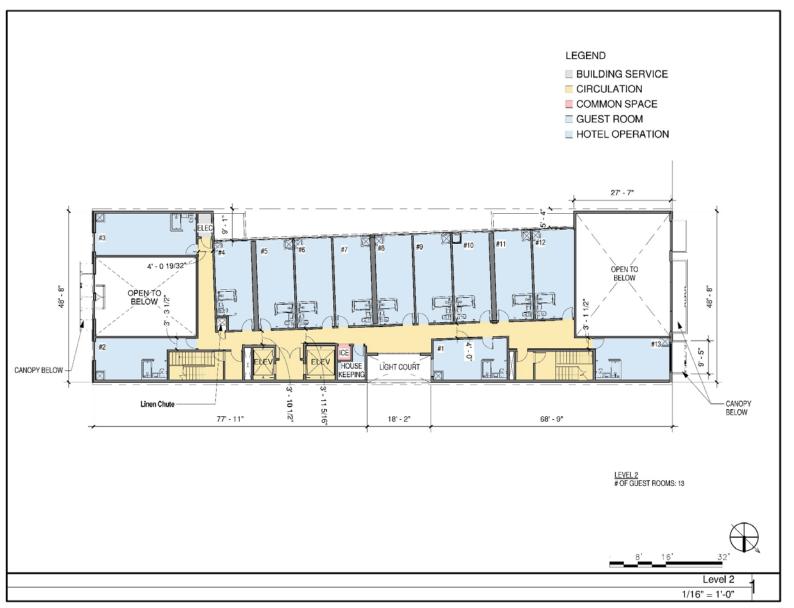
Source: Stanton Architecture. 2016. 1055 Market Street Concept Package. December 13.

Figure 3: Ground Floor Plan



Source: Stanton Architecture. 2016. 1055 Market Street Concept Package. December 13.

Figure 4: Second Floor Plan



Source: Stanton Architecture. 2016. 1055 Market Street Concept Package. December 13.

Figure 5: Typical Plan Levels 3-10

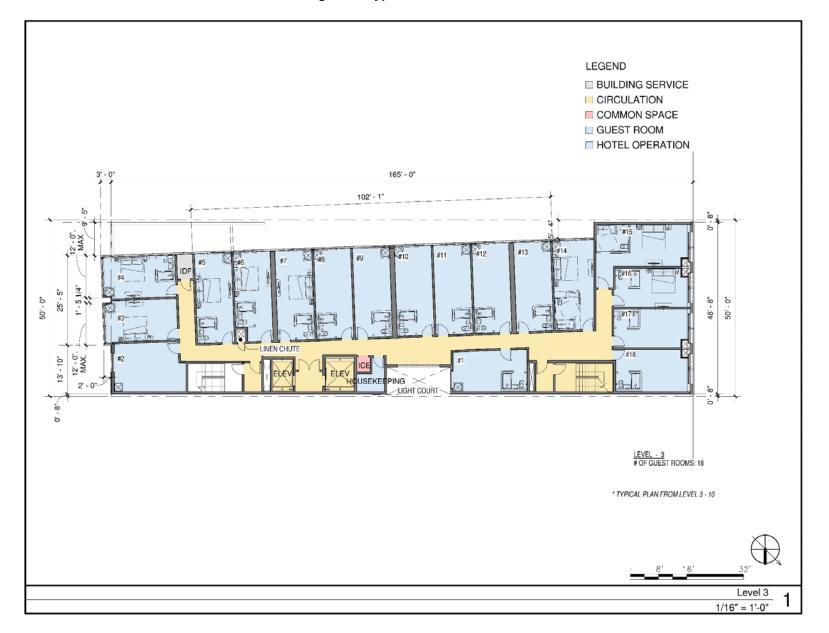
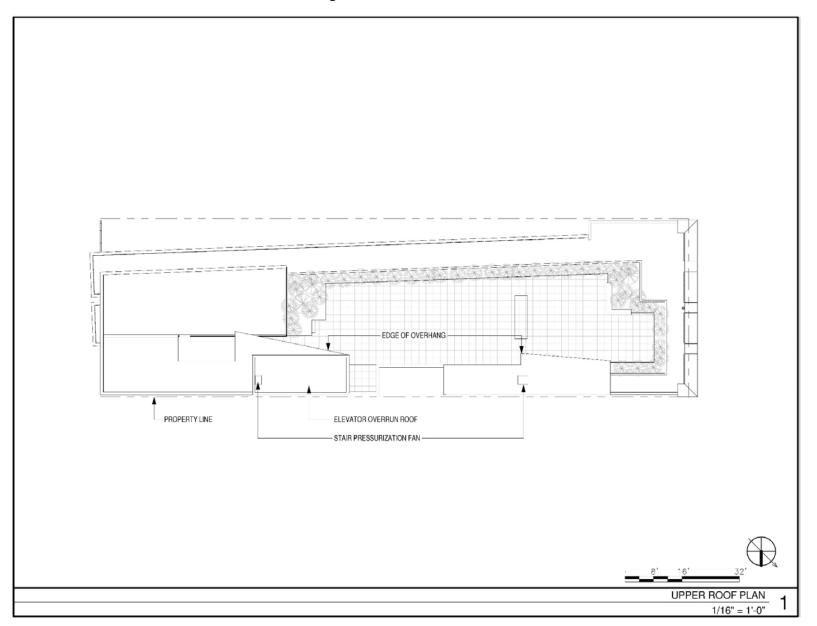
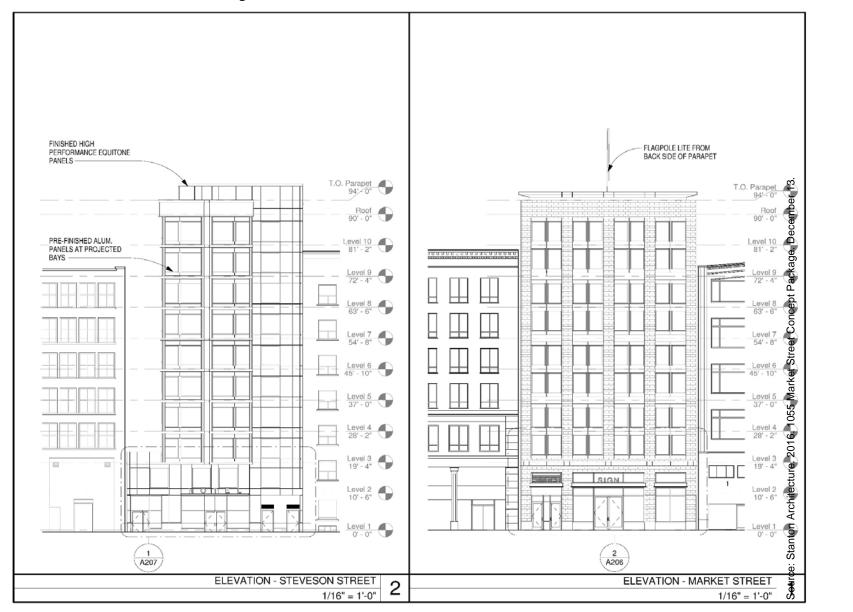
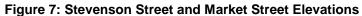


Figure 6: Roof Terrace Plan







C. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	Applicable	Not Applicable
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.	\boxtimes	
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.	\boxtimes	
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.		

San Francisco Planning Code

Overview

The *Planning Code*, which incorporates by reference the City's Zoning Maps, governs permitted uses, densities, and configuration of buildings within San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless either the project conforms to the *Planning Code* or an exception is granted pursuant to provisions of the *Planning Code*.

Uses

The project site is currently zoned C-3-G (Downtown General Commercial), which is intended to support a variety of functions in the area including retail, offices, hotels, entertainment, clubs and institutions, and high-density residential. The project site is also within Mid-Market Area, which has been the focus of a concentrated revitalization effort resulting in a number of renovation and new construction projects, including significant residential construction and relocation of technology companies to several buildings within this area. Additional exceptions would be required to permit construction. These exceptions, including the applicable *Planning Code* sections, are described in detail in the previous Project Approvals section.

Height and Bulk

The project site is within the 90-X Height and Bulk District, which permits construction to a height of 90 feet. The "X" indicates no building bulk requirements. The proposed hotel building would be approximately 90 feet tall (94 to 106.5 feet including elevator equipment including parapets, rooftop access, and mechanical equipment, which are excluded from building height calculations for planning purposes). Therefore, the proposed building would be within the height and bulk limitations of the area.

Floor Area Ratio

Floor-to-area-ration (FAR) is a measure of building intensity based on the ratio between the total floor area to be built on a site and the size of that site. In the C-3-G District, a base 6:1 FAR is allowed under Section 124, with a FAR of up to 9:1 with the purchase of transferable development rights (TDRs). The project would have a FAR of approximately 8.8:1. As a result, a condition of approval requiring the purchase of TDRs will be included in the motions as part of the Approval Action.

Parking

Section 151.1 of the *Planning Code* states that parking is not required for the C-3 District and permits a parking maximum for hotel uses of up to 1 space per 16 guest rooms in addition to 1 space allowed for a manager's dwelling unit. The proposed project would not provide off-street parking spaces, in compliance with the *Planning Code*.

According to Section 155.2 of the *Planning Code*, one Class 1 bicycle space and one Class 2 bicycle space are required for every 30 hotel rooms. A minimum of two Class 2 bicycle spaces must be provided. With 160 hotel rooms, five Class 1 spaces and five Class 2 spaces would be required. Retail uses are required to provide one Class 1 space for every 7,500 sf and one Class 2 space is required for every 2,500 square feet of retail space, with a minimum of two spaces. Retail square footage is 2,187 square feet, so no Class 1 spaces would be required for the retail use. In total, the minimum of two Class 2 spaces would apply to the project. The project would provide six Class 1 and eight Class 2 bicycle spaces, meeting *Planning Code* requirements.

Loading

Planning Code Section 152.1 does not require off-street freight loading spaces for hotel uses under 100,000 gsf or for retail uses under 10,000 gsf in C-3 Zoning Districts. Because the project would include approximately 71,534 gsf of hotel space and 2,187 gsf of retail space, no off-street loading spaces are required. The proposed project would include three on-street passenger loading spaces on Stevenson Street.

Bay Windows

Planning Code Section 136(c) permits bay windows to project over the public right-of way, provided that the bays meet specified limitations for dimensions and separation. The length limitation for a bay window is 15 feet at the line establishing the required open area. Bay windows must also be separated by a minimum distance of 2 feet. The bay windows proposed for the Stevenson Street elevation reach a length of approximately 26 feet and are separated by less than 2 feet, and will therefore require a variance.

Ground-Level Wind Currents

The project site is located in an area that is subject to the San Francisco *Planning Code* Section 148, Reduction of Ground-level Wind Currents in C-3 Districts. *Planning Code* Section 148 specifically outlines wind reduction criteria for the C-3 District by requiring buildings in C-3 Districts to be shaped, or include other wind-baffling measures, so that the development would not cause excessive ground-level currents. The buildings should not result in wind currents above the comfort level of 11 miles per hour (mph) for more than 10 percent of the time year-round between 7:00 a.m. and 6:00 p.m. Similarly, the hazard criterion of the *Planning Code* requires that buildings not cause equivalent wind speeds to reach or exceed the hazard level of 26 mph as averaged from a single full hour of the year.

The proposed building would be approximately 90 feet in height and, therefore, has the potential to change wind conditions in the area. A wind study has been prepared for the project, as discussed in more detail in Section 8, Wind and Shadow. The project will seek an exception

for a comfort criteria exceedance under *Planning Code* Sections 148 and 309. Note that the project would not result in a hazard criteria exceedance per CEQA (see section 8).

Other Plans and Policies

San Francisco General Plan Priority Planning Policies

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

In November 1986, the San Francisco voters approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 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 neighborhoodserving retail uses; (2) protection of neighborhood character (Question 1c, Land Use); (3) preservation and enhancement of affordable housing (Question 2b, Population and Housing, with regard to housing supply and displacement issues); (4) discouragement of commuter automobiles (Questions 4a, b, and f, 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 and Soils); (7) landmark and historic building preservation (Question 3a, Cultural Resources); and (8) protection of open space (Questions 8a and b, Wind and Shadow, and Questions 9a and c, Recreation and Public Spaces).

Prior to issuing a permit for any project which requires an Initial Study under the California Environmental Quality Act (CEQA), and prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of consistency with the General Plan, the City is required to find that the project is consistent with the Priority Policies. As noted above, the compatibility of the project with the General Plan objectives and policies that do not relate to physical environmental issues will be considered by decision-makers as part of their decision whether to approve or disapprove the project. Any potential conflicts identified as part of the process would not alter the physical environmental effects of the project.

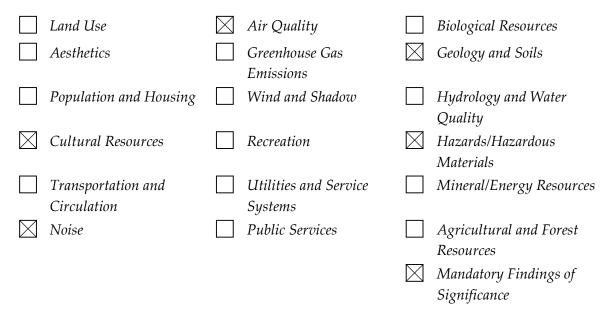
Regional, State and Federal Plans, Policies, and Approvals

The five principal regional planning agencies and their policy plans that guide planning in the nine-county Bay Area are (1) the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission *Plan Bay Area and Projections 2013,* (2) the Bay Area Air Quality Management District (BAAQMD) 2010 *Clean Air Plan,* (3) the Metropolitan Transportation Commission *Regional Transportation Plan – Transportation 2035,* (4) the San Francisco Regional Water Quality Control Board (RWQCB) *San Francisco Basin Plan,* and (5) the

San Francisco Bay Conservation and Development Commission *San Francisco Bay Plan*. Due to the relatively small size and infill nature of the proposed project, there would be no anticipated conflicts with regional, state or federal plans and policies. The consistency of the proposed project with these regional plans is considered under the related resource topics below.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.



E. EVALUATION OF ENVIRONMENTAL EFFECTS

All items on the Initial Study Checklist that have been checked "Less than Significant with Mitigation Incorporated," "Less than Significant Impact," "No Impact" or "Not Applicable" indicate that, upon evaluation, staff has determined that the proposed project could not have a significant adverse environmental effect relating to that topic. A discussion is included for those issues checked "Less than Significant with Mitigation Incorporated" and "Less than Significant Impact" and for most items checked with "No Impact" or "Not Applicable." For all of the items checked "Not Applicable" or "No Impact" without discussion, the conclusions regarding potential significant adverse environmental effects are based upon field observation, staff experience and expertise on similar projects, and/or standard reference material available within the Planning Department, such as the Department's Transportation Impact Analysis Guidelines for Environmental Review, or the California Natural Diversity Data Base and maps, published by the California Department of Fish and Wildlife. For each checklist item, the evaluation has considered the impacts of the proposed project both individually and cumulatively.

Automobile Delay and Vehicle Miles Traveled

In addition, CEQA Section 21099(b)(1) requires that the State Office of Planning and Research (OPR) develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land

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

In January 2016, OPR published for public review and comment a *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*⁴ recommending that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. On March 3, 2016, in anticipation of the future certification of the revised CEQA Guidelines, the San Francisco Planning Commission adopted OPR's recommendation to use the VMT metric instead of automobile delay to evaluate the transportation impacts of projects (Resolution 19579). (Note: the VMT metric does not apply to the analysis of project impacts on non-automobile modes of travel such as transit, walking, and bicycling.)

Accordingly, this Initial Study does not contain discussion of automobile delay impacts. Instead, a VMT and induced automobile travel impact analysis is provided under Topic 4, Transportation and Circulation. The topic of automobile delay, nonetheless, may be considered by decision-makers, independent of the environmental review process, as part of their decision to approve, modify, or disapprove the proposed project.

Senate Bill 743 and Public Resources Code Section 21099

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014.⁵ Among other provisions, SB 743 amended CEQA by adding Public Resources Code (PRC) Section 21099 regarding the analysis of aesthetics and parking impacts for certain urban infill projects in transit priority areas.⁶

PRC Section 21099(d) provides that "aesthetics and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment." Accordingly, aesthetics and parking are no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all the following three criteria:

- 1) The project is in a transit priority area; and
- 2) The project is on an infill site; and

⁴ This document is available online at: *https://www.opr.ca.gov/s_sb743.php*.

⁵SB 743 can be found online at http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743.

⁶ A "transit priority area" is defined in as an area within one-half mile of an existing or planned major transit stop. A "major transit stop" is defined in Section 21064.3 of the California Public Resources Code as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. A map of San Francisco Transit Priority Areas can be found online at

http://sfmea.sfplanning.org/Map%20of%20San%20Francisco%20Transit%20Priority%20Areas.pdf.

3) The project is residential, mixed-use residential, or an employment center.

The project meets each of the above three criteria (the project is considered an employment center), and thus, this Initial Study does not consider aesthetics and the adequacy of parking in determining the significance of project impacts under CEQA.⁷

PRC Section 21099(e) states that a lead agency maintains the authority to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers and that aesthetics impacts do not include impacts on historical or cultural resources. As such, there will be no change in the Planning Department's methodology related to design and historic review.

The Planning Department acknowledges that parking conditions may be of interest to the public and the decision makers. Therefore, this Initial Study presents parking demand analysis for informational purposes and considers any secondary physical impacts associated with constrained supply (e.g., queuing by drivers waiting for scarce on-site parking spaces that affects the public right-of-way) as applicable in the transportation analysis in Section E.4, Transportation and Circulation.

⁷ San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis*, 2014.0408E, March 30, 2017. This document is available for public review at the Planning Department, 1650 Mission Street, Suite 400. This document is on file and available for public review at the San Francisco Planning Department as part of Case File 2014.0408E.

Тор	vics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
1.	LAND USE AND LAND USE PLANNIN Would the project:	G—				
a)	Physically divide an established community?				\boxtimes	
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?					

Impact LU-1: The project would not physically divide an established community. (No Impact)

Land uses in the immediate area of the project site include a mix of low and mid-rise (one- to 10-story) mixed-use commercial buildings, tourist and residential hotels, multifamily housing, entertainment uses, and government institutions. The project site is currently occupied by a two-story vacant commercial building built in 1981 with approximately 16,000 gross square feet (gsf) of retail area. The project site is bounded by a seven-story building and Stevenson Street to the southwest and a seven-story building and Market Street to the northeast.

The proposed new building would be developed entirely within the existing boundaries of the lot. The project would be consistent with the mix of development that characterizes the surrounding established community and would not interfere with or change the existing street plan or impede the passage of persons or vehicles. Therefore, the project would not physically divide an established community, and the project would have no impact.

Impact LU-2: The project would not conflict with applicable land use plans, policies, and regulations of agencies with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

Environmental plans and policies are those, such as the BAAQMD 2017 *Clean Air Plan*, that directly address environmental issues and/or contain targets or standards that must be met to preserve or improve characteristics of the City's physical environment.

The project would not obviously or substantially conflict with any applicable land use plan, policy, or regulation such that an adverse physical change would result (see Section C, Compatibility with Existing Zoning and Plans). The project would not conflict with General Plan policies that relate to physical environmental issues. The project would be consistent with applicable land use plans, policies, and regulations. Therefore, the proposed project would have a less-than-significant impact with regard to conflicts with existing plans and zoning and no mitigation measures are necessary.

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

Several reasonably foreseeable projects are located in the immediate project vicinity, including, but not limited to, the nearby planned developments located at:

- 950–974 Market Street (demolition of five existing structures and the construction of a new 12-story, 120-foot mixed-use building that includes 247 dwelling units. A 232 room hotel, and approximately 16,050 square feet of retail/restaurant uses, with an 82-space parking garage located below grade);
- 1028 Market Street (demolition of an existing two-story commercial building and the construction of a 13-story, 120-foot mixed use building with 186 dwelling units and approximately 9,675-sf of retail space, with two levels of subgrade parking);
- 1125 Market Street (construction of a 12-story mixed-use building with 160 hotel rooms, 5,560-sf of retail/restaurant space, a 2,150-sf athletic club and 19,516-sf of working space/office uses);
- 1066 Market Street (demolition of existing 2-story commercial building and parking lot and new construction of a 14-story building to house approximately up to 330 residential units, approximately 1,885 sf of retail on Market Street, approximately 2,678 sf of commercial use along Golden Gate Avenue and Jones Street and 2 levels of below grade parking for approximately 112 cars).



Figure 8: Cumulative Projects

In addition to the above, additional projects were considered for the purposes of analyzing potential impacts on Cultural Resources. These projects included 1 Jones Street (the Hibernia Bank Building), 570 Jessie Street, 1075 Market Street, 1095 Market Street and 1100 Market Street.

The cumulative land use development projects in the project vicinity would result in noticeable physical change to the project area in terms of increasing the permanent and daytime population in the surrounding area. However, new development in the project vicinity is consistent with current land use policies and zoning controls in the area and would not divide an established community or substantially conflict with an applicable land use plan or policy. The project site is not located within the jurisdiction of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. New development in the project vicinity would be consistent with prevailing density and would occur on previously developed land. For these reasons, the project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable land use impact.

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
2.	POPULATION AND HOUSING— Would the project:					
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?					
b)	Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?					
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?					

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

The project would involve demolition of an existing vacant commercial building and construction of a new ten-story, 160-room hotel with approximately 2,187 gsf of retail space. This would result in employment of approximately 150 persons.⁸As of 2015, San Francisco's employment was approximately 668,900 persons.⁹ Project-related employment would amount to a citywide employment increase of approximately 0.02 percent. Per ABAG, employment in San Francisco is forecast to increase by 34 percent (approximately 191,000 jobs) between 2010 and 2040, to a total of almost 760,000.¹⁰In the context of projected citywide employment growth, the potential increase in employment from the project would be minimal compared to the total employment expected in San Francisco and the greater San Francisco Bay Area. The minor increase in employment growth nor would it be beyond employment and housing in the context of citywide employment and housing

⁸ San Francisco Planning Department. 2002. Transportation Impact Analysis Guidelines for Environmental Review. Appendix C, Table C-1. An employment factor of 350 gsf per employee is used for general retail uses. An employment factor of 0.9 employees per hotel room is used for hotel uses. Available: http://sf-planning.org/Modules/ShowDocument.aspx?documentid=6753. Accessed: July 27, 2016.

⁹ State of California Employment Development Department. 2016. San Francisco County Industry Employment Data. Available at: *http://www.labormarketinfo.edd.ca.gov/county/sanfran.html*#PRO. Accessed July 27, 2016.

¹⁰ Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), Plan Bay Area Jobs-Housing Connection Strategy, revised May 16, 2012. Available at:

http://www.onebayarea.org/pdf/JHCS/May_2012_Jobs_Housing_Connection_Strategy_Main_Report.pdf. Accessed: July 27, 2016.

projections considered as part of citywide planning efforts. The project would therefore not directly or indirectly induce substantial population growth in San Francisco and would result in a less-than-significant population impact.

Impacts PH-2: The project would not displace existing housing units or substantial numbers of people or create demand for additional housing, necessitating the construction of replacement housing. (Less than Significant)

The project would not directly displace any housing or people because no residential dwelling units are currently located on the project site. Assuming that some employees would be new to the region, the increase of 150 employees (see Impact PH-1) could result in a small increase in demand for additional housing. The potential increase in population from the employment opportunities provided by the project would be accommodated for by the existing and available housing stock in the Bay Area. The project would therefore result in less-than-significant impacts related to the displacement of housing or creation of demand for additional housing.

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

The geographic extent for consideration of cumulative impacts to population and housing is the City and County of San Francisco, as population is generally described and planned for at a city-wide scale. As described previously, the project would not induce substantial population growth or have significant physical environmental effects on housing demand or population. *Plan Bay Area*, the current regional transportation plan and Sustainable Communities Strategy that was adopted by MTC and ABAG in July 2013, contains housing and employment projections for San Francisco through 2040. The City's projected housing growth is 28,869 units. *Plan Bay Area* also identified Priority Development Areas to identify existing neighborhoods near transit that are appropriate places to concentrate future growth.

The project and the surrounding area is located within the Downtown-Van Ness-Geary Priority Development Area identified in the *Plan Bay Area*. Therefore, although the project, in combination with other past, present, and reasonably foreseeable future projects, could increase the population in the area, this increase would not constitute substantial unplanned growth. Employment-related housing demand associated with the project and nearby cumulative development projects could be accommodated by the City's projected housing growth of 28,869 units. This population growth has been anticipated and accounted for in ABAG's and the City's projections and, therefore, would accommodate planned population growth that, in and of itself, would not result in a significant impact on the physical environment. The project, in combination with other past, present, and reasonably foreseeable future projects, would not result in substantial numbers of housing units or people being displaced because the majority of the approved and proposed cumulative projects would demolish vacant buildings and/or construct new buildings on surface parking lots. For these reasons, the project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a substantial numbers of housing lots. For these reasons, the project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a

cumulatively considerable population and housing impact and impacts would not be cumulatively significant.

Тор	vics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
3.	CULTURAL RESOURCES— Would the project:					
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco <i>Planning Code</i> ?					
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?					
c)	Disturb any human remains, including those interred outside of formal cemeteries?		\boxtimes			
d)	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074?		\boxtimes			

Impact CR-1: Construction of the project could result in a substantial change in the significance of the Market Street Theater and Loft Historic District. (Less than Significant with Mitigation)

Historical resources are those properties that meet the definitions in Section 21084.1 of the CEQA statute and Section 15064.5 of the CEQA Guidelines. Historical resources include properties listed in, or formally determined eligible for listing in, the California Register of Historical Resources (California Register) or in an adopted local historic register. Historical resources also include resources identified as significant in a historical resource survey meeting certain criteria. Additionally, properties that are not listed but are otherwise determined to be historically significant, based on substantial evidence, would also be considered historical resources. The significance of a historical resource is materially impaired when a project "demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance."

A Historic Resource Evaluation (HRE) was prepared to assist the Planning Department in determining whether the existing building at 1055 Market Street is a historic resource and to provide information about the known Historic District in which it is located.¹¹ The Planning Department reviewed the HRE, which concurred with the findings that the building on the project site is not a historic resource and not a contributor to the Market Street Theatre and Loft Historic District (Historic District), and issued a Historic Resource Evaluation Response (HRER)

¹¹ Garavaglia Architecture, Inc.. 2014. 1055 Market Street Historic Resource Evaluation and Standards Compliance Review. August 18. This document is on file and available for public review as part of Case File No. 2014.0408E.

determination.¹² However, abutting the project site to the northeast is the seven-story Beaux Arts Sterling Building, built in 1907, and abutting the project site to the southwest is the sevenstory Beaux Ede Building, built in 1910. Both buildings are contributors to the Historic District and are likely individually-significant as well. Construction of the proposed project could potentially impact these two buildings, both as potential individual resources and as designated contributors to the Historic District.

Market Street Theater and Loft Historic District

As described in the HRER, the project site is within the Historic District, which includes motion picture theater and loft buildings along Market Street, primarily between Sixth and Seventh streets. On the south side of Market Street, the boundary extends four buildings northeast, past Sixth Street, and one building southwest, past Seventh Street. On the north side of Market Street, the boundary includes two major intersections, Market Street/Golden Gate Avenue/Taylor Street and Market/Jones/McAllister streets. The Historic District was listed in the National Register of Historic District as a Category A Resource for the purposes of CEQA review.¹⁴ Category A Resources include resources listed on or formally determined to be eligible for the California Register or resources listed on adopted local registers, and properties that have been determined to appear or may become eligible, for the CRHR.¹⁵ Per the NRHP nomination, 30 buildings are located within the Historic District, of which 20 are contributing, and the other 10, including the existing building at the project site, are "intrusions."¹⁶

The Historic District is significant under NRHP Criteria A and C.¹⁷ Its period of significance is 1889–1930. The Historic District consists of both a sampling of pre-1906 earthquake buildings (four of the contributing buildings in the Historic District) and post-1906 earthquake buildings, which were influenced by the City Beautiful Movement in terms of texture, coloration, height, and style. Within the Historic District, each of the two intersections north of Market Street with three converging streets (Market Street/Golden Gate Avenue/Taylor Street and Market/Jones/McAllister Streets) includes a notable building: The Golden Gate Theatre for the Market Street/Golden Gate Avenue/Taylor Street intersection and the Hibernia Bank for the

¹² San Francisco Planning Department, Historic Resource Evaluation Response, 1055 Market Street, San Francisco, CA 94103, December 30, 2016. This document is on file and available for public review as part of Case File No. 2014.0408E.

¹³ Bloomfield, Anne. 1986. Market Street Theatre and Loft Historic District, National Register of Historic Places Nomination *Form*.

¹⁴ San Francisco Planning Department, Historic Resource Evaluation Response, 1055 Market Street, San Francisco, CA 94103, December 30, 2016.

¹⁵ San Francisco Planning Department. 2004. San Francisco Preservation Bulletin No. 16. Available at: http://sfplanning.org/historic-preservation-bulletins

¹⁶ Intrusions are buildings that were constructed or heavily modified after the period of significance.

¹⁷ Criterion A (resources associated with events that have made a significant contribution to history) and Criterion C (resources that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values).

Market/Jones/McAllister Street intersection. Per the nomination form, the Historic District is notable for its architects, including, but not limited to, G. Albert Lansburgh, Miller & Colmesnil, Shea & Shea, and Sylvain Schnaittacher, and the architects' wealthy real estate clients. It was considered a second downtown in the commercial sense but primarily a center for big movie houses, which reached their height in the 1920s, after their previous vaudeville history. Michael Corbett's description in *Splendid Survivors*, excerpted in the NRHP nomination, notes that the loft buildings are "distinguished by the simplicity of their skeletal façades," characteristic of early Modernist notions of expressing structure and function, but also embellished by ornamentation.¹⁸

Buildings within the Historic District range in height from two to eight stories, generally occupy the entire lot, and have straight vertical façades. The Historic District's predominant style is described as "The Commercial Style," with ground-floor commercial storefronts with transom bands, which are transverse horizontal structural beams or bars; two- to three-part vertical compositions; decorative Renaissance/ Baroque-style formal features, including columns, pilasters, and prominent cornices; double-hung and Chicago windows; arched window openings at the top story; and a parapet with a flat roof beyond. Finish materials include brick, terra cotta, galvanized iron, and stucco over a reinforced concrete or steel framework. Tripleglobe streetlights with sculpted bases are noted as complementary to the buildings. Of the 21 buildings on the same block as the project site, six are contributors to the Historic District and eligible for the CRHR.

Project Site, Existing Building, and Adjacent Existing Buildings

The existing structure at 1055 Market Street was constructed in 1981, after a 1979 fire destroyed all but the bottom two floors of the previous, seven-story Forrest Building. The remaining two floors were demolished and the existing building was constructed, expeditiously and with little regard for design, in 1981.

Abutting the project site to the northeast is the seven-story Beaux Arts Sterling Building, built in 1907 and substantially refurbished after the 1979 fire that destroyed the building at 1055 Market Street. The seven-story Beaux Ede Building, built in 1910, abuts the project site to the southwest. Both buildings are contributors to the Historic District. Both buildings are members of the "Loft" group in the historic listing, and both buildings are constructed of a combination of masonry façade and concrete, with terra cotta, marble and glass. The project site is also within the same block as the following Historic District contributory buildings: the Grant Building (1095 - 1097 Market St), the Federal Hotel (1083 - 1087 Market St), the Egyptian Theatre (1067 - 1071 Market St), the Globe Investment Company Building (1063 - 1065 Market St), the Eastern Outfitting Building (1017 - 1019 Market St), and the Walker Building (1007 - 1009 Market St).

¹⁸ Bloomfield, Anne. 1986. *Market Street Theatre and Loft Historic District, National Register of Historic Places Nomination Form.* San Francisco, Item 8 – Significance, Continuation p. 1.

Direct Impacts - Demolition

As discussed above, the current building is less than 50 years old and does not meet any of the criteria to be considered a historic resource under the CRHR. Therefore, demolition of the existing building would not directly impact an individually eligible historic resource, nor would it impact a contributor to the Historic District.

Direct Impacts - Construction

While the existing building on the project site is not an eligible historic resource, the buildings immediately adjacent, while not determined to be individual resources, are considered to be historic resources, as contributors to the historic district. Construction of the project would require demolition of the existing building, excavation and construction of the new building. Construction methods would include the use of piles installed using pile drilling or other vibratory methods. Structures, especially older masonry structures, are sensitive to ground-borne vibration. Ground-borne vibration can move floors in buildings, rattle windows, shake items on shelves or hanging on walls, and create rumbling sounds. In extreme cases, the vibration can damage buildings. Typically, ground-borne vibration, minimizing effects to buildings beyond the immediate vicinity of the construction. Ground-borne vibration; however, could structurally affect and materially impair the adjacent buildings, resulting in damage that could affect the historic significance of the buildings. This impact is considered significant.

Several different methods are used to quantify vibration; peak particle velocity (PPV) is most frequently used to describe vibration impacts on buildings. PPV is defined as the maximum instantaneous peak of the vibration signal and is expressed in inches per second. The Federal Transit Administration (FTA) significance criterion for non-engineered timber and masonry buildings (typically, historic buildings) is a PPV of 0.2 or greater; for engineered concrete and masonry buildings, the criterion is a PPV of 0.3 or greater.¹⁹ Of the various pieces of construction equipment that generate vibration, vibrating pile drivers are associated with the greatest vibration levels. Other pieces of construction equipment that generate more significant vibration include clam shovels, which are used for slurry wall construction; bulldozers; jackhammers; and loaded trucks.

Table 2 identifies the typical vibration velocities generated by various types of construction equipment at reference distances of 10, 25, and 50 feet. As shown in Table 2, construction activity on the project site could cause vibration at the adjacent buildings to exceed the FTA vibration velocity threshold of 0.2 inch per second for historic buildings. If the buildings were damaged because of this vibration, it could cause a significant impact to the buildings' historic significance.

¹⁹ Federal Transit Administration (FTA). 2006. *Transit Noise and Vibration Impact Assessment*. Table 12-3. May.

	Vibration Level (PPV), in/sec			
Equipment	at 10 feet	at 25 feet	at 50 feet	
Vibratory Roller	0.58	0.21	0.10	
Hoe Ram	0.24	0.09	0.04	
Large bulldozer	0.24	0.09	0.04	
Caisson drilling	0.24	0.09	0.04	
Loaded trucks	0.21	0.08	0.04	
Jackhammer	0.10	0.04	0.02	
Small bulldozer	0.01	0.00	0.00	

Table 2: Vibration Source Levels for Construction Equipment

Source: Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment. Table 12-3. May. PPV – Peak Particle Velocity

Mitigation Measure M-CR-1: Vibration Mitigation and Monitoring Plan would apply to any phase of the project's construction that would require ground-disturbing activities due to the potential vibratory impacts of project construction on adjacent contributory and possibly individual historic resources. This measure would require, among other things, that the project sponsor set a performance standard for maximum vibration levels and use construction best practices to avoid vibration damage to adjacent historic buildings based on that performance standard. Monitoring would be required to document and remediate any damage to adjacent and historic buildings caused by construction activities at the project site. Impacts would be reduced to a less-than-significant level with implementation of the mitigation measure.

Mitigation Measure M-CR-1: Vibration Monitoring and Management Plan

The project sponsor shall retain the services of a qualified structural engineer and preservation architect that meet the Secretary of the Interior's Historic Preservation Professional Qualification Standards to conduct a Pre-Construction Assessment of the Sterling Building (1049 Market Street) and the Ede Building (1059 Market Street). Prior to any ground-disturbing activity, the Pre-Construction Assessment shall be prepared to establish a baseline, and shall contain written and/or photographic descriptions of the existing condition of the visible exteriors of the adjacent buildings and in interior locations upon permission of the owners of the adjacent properties. The Pre-Construction Assessment shall determine specific locations to be monitored and include annotated drawings of the buildings to locate accessible digital photo locations and locations of survey markers and/or other monitoring devices (e.g., to measure vibrations). The Pre-Construction Assessment shall be submitted to the Planning Department along with the Demolition and/or Site Permit Applications.

The structural engineer and/or preservation architect shall develop, and the project sponsor shall adopt, a vibration management and continuous monitoring plan to protect the Sterling Building (1049 Market Street) and the Ede Building (1059 Market Street) against damage caused by vibration or differential settlement caused by vibration during project

construction activities. In this plan, the maximum vibration level not to be exceeded at each building shall be 0.2 inch per second, or a level determined by the site-specific assessment made by the structural engineer and/or preservation architect for the project. The vibration management and monitoring plan should document the criteria used in establishing the maximum vibration level for the project. The vibration management and monitoring plan shall include pre-construction surveys and continuous vibration monitoring throughout the duration of the major structural project activities to ensure that vibration levels do not exceed the established standard. The vibration management and monitoring plan shall be submitted to Planning Department Preservation Staff prior to issuance of any construction permits.

Should vibration levels be observed in excess of the standard, or if damage to either Sterling Building (1049 Market Street) and/or the Ede Building (1059 Market Street) is observed, construction shall be halted and alternative techniques put in practice, to the extent feasible. The structural engineer and/or historic preservation consultant shall conduct regular periodic inspections of digital photographs, survey markers, and/or other monitoring devices during ground-disturbing activity at the project site. The buildings shall be protected to prevent further damage and remediated to pre-construction conditions as shown in the Pre-Construction Assessment with the consent of the building owner. Any remedial repairs shall not require building upgrades to comply with current San Francisco Building Code standards.

The project sponsor shall also incorporate into construction specifications for the project a requirement that the construction contractor(s) use all feasible means to avoid damage to the Sterling Building (1049 Market Street) and the Ede Building (1059 Market Street) including but not limited to, staging of equipment and materials as far as possible from historic buildings to limit damage; using techniques in demolition, excavation, shoring, and construction that create the minimum feasible vibration; maintaining a buffer zone when possible between heavy equipment and historic resource(s); enclosing construction scaffolding to avoid damage from falling objects or debris; and ensuring appropriate security to minimize risks of vandalism and fire. These construction specifications could be submitted to the Planning Department along with the Demolition and Site Permit Applications.

With implementation of **Mitigation Measure M-CR-1** and incorporation of best construction practices to reduce vibration-induced damage to a less-than-significant level, the project would not result in a substantial adverse impact to nearby historically significant buildings such that the significance of these buildings would be materially impaired. Therefore, with implementation of **Mitigation Measure M-CR-1**, the overall impact as well as temporary construction-related vibration impacts of the project on potentially individually historic properties would be less than significant.

The excavation required for the underground level would extend below the foundations of the adjacent historic buildings. If the new construction were to undermine the integrity of the

foundations of these buildings, structural damage could occur over time that could impact the historical significance of these buildings. San Francisco Department of Building Inspection (DBI) would be responsible for reviewing the building permit application to ensure that proposed construction activities, including shoring and underpinning, would comply with all applicable procedures and requirements and would not materially impair adjacent or nearby buildings. With the implementation of **Mitigation Measure M-CR-1** and compliance with DBI requirements, impacts to adjacent historic buildings would be less than significant.

Impact CR-2: The project, when constructed, would not result in a substantial adverse change in the significance of a Historic District. (Less than Significant)

The project site is within the Market Street Theatre and Loft Historic District and adjacent to two contributors to the Historic District (as discussed under Impact CR-1). The existing building at the project site, however, is not a contributor to the Historic District.

Impacts from the design of the proposed building on other buildings within the Historic District could occur from incompatibility between the proposed new design and the design qualities within the Historic District. The HRE determined that the design of the proposed hotel and mixed use commercial building at 1055 Market Street fits with the surrounding Mid-Market neighborhood and buildings.²⁰ According to the HRE, aspects of the proposed design that are compatible with the adjacent Historic District include the rectilinear design of the floors abutting adjacent buildings, the proportion of glass to wall surface of the first floor, the organization of the retail storefront and the casement windows. The exposed masonry appearance at 1055 Market will blend with the facades of the adjacent buildings while the use of red brick provides a suitable differentiation. Other design elements serve to differentiate the building from the Historic District, such as the use of composite metal panels on the Stevenson Street facade. The overall design of the proposed new building does not directly reference the architectural character of historic buildings in the Mid-Market Street Theatre and Loft District nor does it attempt to create a false sense of history by imitating nearby design features or historical architectural characteristics. The HRER concurred that the proposed project would be a contemporary but compatible design that references the character-defining features of adjacent buildings and the surrounding historic district in conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.²¹ Therefore, impacts of the proposed building on the significance of the Historic District would be less than significant.

²⁰ Garavaglia Architecture, Inc.. 2014. 1055 Market Street Historic Resource Evaluation and Standards Compliance Review. August 18. This document is on file and available for public review as part of Case File No. 2014.0408E.

²¹ San Francisco Planning Department, Historic Resource Evaluation Response, 1055 Market Street, San Francisco, CA 94103, December 30, 2016. This document is on file and available for public review as part of Case File No. 2014.0408E.

Impact CR-3: The project could cause a substantial adverse change in the significance of an archeological resource. (Less than Significant with Mitigation)

When determining the potential for encountering archeological resources, relevant factors include the location, depth, and areal extent of excavation proposed, as well as any recorded information on known resources in the area. The project site is blanketed by approximately 5 to 10 feet of fill, consisting of loose to medium dense sand with occasional debris and rubble. From approximately 10 to 60 feet below ground surface (bgs), the site is underlain by Dune Sand, which is fine-grained and poorly graded. From 60 to 110 or 120 feet bgs, the site is underlain by the Colma Formation. The Colma Formation is comprised of dense to very dense stiff clay and sand and generally extends to bedrock at about 110 to 120 feet bgs. Some projects in the vicinity encountered a Marsh Deposits layer between the Dune Sand and Colma Formation layers. If present, the Marsh Deposit layer would be approximately 5 to 10 feet thick and consist of soft to medium stiff sandy clay with organics and/or loose to medium dense clayey sand.

A Preliminary Archeological Review (PAR) was completed by the Planning Department's archaeologist for the project.²² The PAR determined that the project site is within an area identified in the draft *Central SoMa Plan Area Archaeological Research Design and Treatment Plan* as "High Potential for Buried Prehistoric Sites" based on geoarcheological modeling. The closest known prehistoric site is SFR-28, also known as the BART skeleton, which consisted of an isolated burial found in Bay Mud, overlain by sand dunes, approximately 8 meters below mean sea level just west of the project site, which was uncovered during excavation of the Civic Center BART station. The skeleton dates to the Middle Holocene. In addition, numerous shell middens are known to rim the shores of Mission Bay and the project site is less than quarter mile west of the National Register-eligible prehistoric midden archeological district. Nearly all prehistoric deposits in the south of Market area occur within native sand dune deposits at various depths but as near the current surface as approximately 2 ft. bgs. Occupation periods for these sites range from several hundred years to over 1,200 years. Therefore, the project site is sensitive for prehistoric archeological resources.

The project site was developed by at least the late 1860s based on a review of US Coast Survey maps and was developed throughout the 19th century. As it is possible that historic-period archeological deposits exist within the fill below the existing building, the proposed project could result in a significant impact to archeological resources. Implementation of **Mitigation Measure M-CR-3: Archeological Testing Program**, which requires archeological testing, would reduce this potential impact to less than significant.

²² SF Planning Department, *Preliminary Archaeological Review for 1055 Market Street*, September 26, 2017.

Mitigation Measure M-CR-3: Archeological Testing Program

Based on a reasonable presumption that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the project on buried archaeological resources. The project sponsor shall retain the services of an archaeological consultant from the rotational Planning Department Qualified Archaeological Consultants List (QACL) maintained by the Planning Department archaeologist. The archeological consultant shall undertake an archeological testing program as specified herein. In addition, the consultant shall be available to conduct an archeological monitoring and/or data recovery program if required pursuant to this measure. The archeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for 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 archeological resource, as defined in State CEQA Guidelines Section 15064.5 (a)(c).

Consultation with Descendant Communities. On discovery of an archeological site²³ associated with descendant Native Americans, the Overseas Chinese, or other descendant group, an appropriate representative²⁴ of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and consult with the ERO regarding appropriate archeological treatment of the site, recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archaeological Resources Report (FARR) shall be provided to the representative of the descendant group.

Archeological Testing Program. The archeological consultant shall prepare and submit to the ERO for review and approval an Archeological Testing Plan (ATP) prior to the start of construction. The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected

²³ By the term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

²⁴ An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and, in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the Planning Department archeologist.

archeological resource(s) that could be adversely affected by the project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine, to the extent possible, the presence or absence of archeological resources and identify and evaluate whether any archeological resource encountered on the site constitutes a historical resource under CEQA. At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to the ERO. If, based on the archeological testing program, the archeological consultant finds that significant archeological resources may be present, the ERO, in consultation with the archeological consultant, shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. No archeological data recovery shall be undertaken without the prior approval of the ERO or the Planning Department archeologist. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the project, at the discretion of the project sponsor, either:

A) The project shall be re-designed to avoid any adverse effect on the significant archeological resource; or

B) A data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive rather than research significance and that interpretive use of the resource is feasible.

Archeological Monitoring Program. If the ERO, in consultation with the archeological consultant, determines that an Archeological Monitoring Program (AMP) shall be implemented, the AMP shall include, at a minimum, the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soil-disturbing activities commencing. The ERO, in consultation with the archeological consultant, shall determine what project activities shall be archeologically monitored. In most cases, any soil-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, drilling of piers (foundation work, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archaeological resources and their depositional context;
- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), how to identify the evidence of the expected resource(s), and the appropriate protocol in the event of apparent discovery of an archeological resource;
- The archeological monitor(s) shall be present on the project site per a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with project archeological consultant, determined that project construction activities could have no effects on significant archeological deposits;
- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;

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

Whether significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archeological Data Recovery Program. If archaeological data recovery is needed, an archeological data recovery program shall be conducted in accord with an Archeological Data Recovery Plan (ADRP). The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to 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 project. Destructive data recovery methods shall not be applied to portions 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 archeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.

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

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and associated or unassociated funerary objects discovered during any soil disturbing activity, shall comply with applicable state and federal laws. This treatment shall include immediate notification of the Coroner of the City and County of San Francisco and, in the event of the coroner's determination that the human remains are Native American remains, notification of the California Native American Heritage Commission (NAHC), which shall appoint a Most Likely Descendant (MLD) (PRC Section 5097.98). The archeological consultant, project sponsor, ERO, and MLD shall have up to, but not beyond, six days from the time of discovery to make reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (State CEQA Guidelines Section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing state regulations or in this mitigation measure compels the project sponsor and the ERO to accept the recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects, as specified in the treatment agreement, if such an agreement has been made, or, otherwise, as determined by the archeological consultant and the ERO.

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

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 copy, one unbound copy, and one unlocked and searchable PDF copy of the FARR on CD, along with copies of any formal site recordation forms (California Department of Parks and Recreation [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 in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

Impact CR-4: The project could disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)

Excavation depths would extend a short distance below the existing building's basement into native Dune soils (approximately 4 feet). With construction into native soils, the project could disturb human remains, resulting in a significant impact. Impacts on Native American burials are considered under PRC Section 15064.5(d)(1). When an Initial Study identifies the existence of, or the likelihood of, Native American human remains within a project site, the CEQA lead agency is required to work with the appropriate tribal entity, as identified by the NAHC. The CEQA lead agency may develop an agreement with the appropriate tribal entity for testing or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials. By implementing such an agreement, the project becomes exempt from the general prohibition on disinterring, disturbing, or removing human remains from any location other than the dedicated cemetery (Health and Safety Code Section 7050.5) and the requirements of CEQA pertaining to Native American human remains. The project's treatment of human remains and associated or unassociated funerary objects, if discovered during any soil-disturbing activity would comply with applicable state laws, including immediate notification of the City and County of San Francisco Coroner. If the coroner determines that the remains are Native American, the NAHC will be notified and will appoint an MLD (PRC Section 5097.98). Mitigation Measure M-CR-3: Archeological Testing Program contains language to ensure the sound handling of any encountered human remains. With implementation of Mitigation Measure M-CR-3, the project would have a less-than-significant impact on human remains.

Impact CR-5: The project could cause a substantial adverse change in the significance of a tribal cultural resource. (Less than Significant with Mitigation)

Tribal cultural resources (TCR) are those resources that meet the definitions in Public Resources Code Section 21074. TCRs are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either (a) included or determined to be eligible for inclusion in the CRHR or (b) included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k). Based on discussions with Native American tribal representatives, prehistoric archeological resources in San Francisco are presumed to be potential tribal cultural resources. A tribal cultural resource is adversely affected when a project affects its significance.

Pursuant to Assembly Bill 52 (AB 52), within 14 days of a determination that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency is required to contact the Native American tribes that are culturally or traditionally affiliated with the geographic area in which the project is located. Notified tribes have 30 days to request consultation with the lead agency to discuss potential impacts on tribal cultural resources and measures for addressing those impacts. On September 26, 2017, a Tribal Notification Regarding Tribal Cultural Resources and CEQA was sent to Native American tribes affiliated with the

geographic area in which the project is located. No requests for consultation have been received.

Unknown archeological resources may be encountered during construction that could be identified as TCRs at the time of discovery, or later. Therefore, the potential adverse effects of the project on previously unidentified archeological resources, as discussed under Impact CR-3, also represent a potentially significant impact on TCRs. **Mitigation Measure M-CR-3: Archeological Testing Program** requires consultation with descendant communities upon discovery of an archaeological site associated with descendant Native Americans. **Mitigation Measure M-CR-5: Tribal Cultural Resources Interpretive Program** requires either preservation-in-place of TCRs, if determined effective and feasible, or an interpretive program regarding the TCRs developed in consultation with affiliated Native American tribal representatives. Implementation of **Mitigation Measure M-CR-3: Archeological Testing Program**, and **Mitigation Measure M-CR-5: Tribal Cultural Resources Interpretive Program**, would reduce potential adverse effects on TCRs to a less-than-significant level.

Mitigation Measure M-CR-5: Tribal Cultural Resources Interpretive Program.

If the ERO determines that preservation-in-place of previously unidentified archeological resources pursuant to Mitigation Measure M-CR-3, Archeological Monitoring, is not a sufficient or feasible option, and if in consultation with the affiliated Native American tribal representatives, the ERO determines that the resource constitutes a TCR, the project sponsor shall implement an interpretive program of the TCR in consultation with affiliated tribal representatives. An interpretive plan produced in consultation with the ERO and affiliated tribal representatives, at a minimum, and approved by the ERO would be required to guide the interpretive program. The plan shall identify, as appropriate, proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long-term maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifacts displays and interpretation, and educational panels or other informational displays.

Impact C-CR-1: The project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, could result in cumulative impacts on cultural resources. (Less than Significant with Mitigation)

The geographic scope, or cumulative study area, for cumulative historic architectural resource impacts includes the proposed project site and surrounding city blocks, which include properties designated as part of the Market Street Theater and Loft Historic District. Historic resources within this area comprise a district, which is why this geographic limit was chosen.

Within, or adjacent to, the Market Street Theater and Loft Historic District are nine recent or foreseeable projects to consider in the context of the current project. Of these identified projects, only the 1028 Market Street project, which proposed the demolition of a contributing resource,

had project-specific impacts to the district. The projects at 1 Jones Street, 570 Jessie Street, 950-974 Market Street, 1066 Market Street, 1075 Market Street, 1095 Market Street, and 1100 Market Street have been evaluated and found to result in no project-specific or cumulative historical resource impacts. Although the 1028 Market Street project would result in a significant and unavoidable impact to the Historic District from the demolition of the building as a contributor to the Historic District, the proposed project would not combine with this or other projects in such a way that there would be a significant cumulative impact on historic architectural resources, and would not combine with any other project to result in a material impairment of the Historic District. Additionally, construction of the project could overlap with construction activities of other projects in the area, including the development site at 1066 Market Street. However, construction vibration would be localized, and the vibration from construction activity is typically below the threshold of perception when the activity is more than 50 feet from the receiver. The 1066 Market Street site is located 220 feet away from the project. Accordingly, given the above, construction of the proposed project, combined with other projects, would not result in a significant cumulative effect on historical resources.

Archeological resources are non-renewable members of a finite class. All adverse effects to archeological resources erode a dwindling cultural/scientific resource base. Federal and state laws protect archeological resources in most cases, either through project redesign or by requiring that the scientific data present within an archeological resource be archeologically recovered. As discussed above, the project could have a significant impact related to archeological resources and disturbance of human remains. Project-related impacts on archeological resources and human remains are site-specific and generally limited to the project's construction area. Therefore, the project would not result in a significant cumulative impact to archeological resources.

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
4.	TRANSPORTATION AND CIRCULAT Would the project:	ION—				
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?					
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?					
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?					
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?			\boxtimes		
e)	Result in inadequate emergency access?			\boxtimes		
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?					

The project site is not located within an airport land use plan area or near a private airstrip. The project would not interfere with air traffic patterns. Therefore, Topic 4c is not applicable to the project.

A Transportation Impact Study (TIS) was prepared that analyzed a development of up to 74,000 gsf composed of 155 hotel rooms and 4,000 gsf of retail uses.²⁵ The proposed project would differ in composition, but would be slightly smaller in size at 73,721 gsf with 160 hotel rooms, 2,187 gsf of retail, and 2,266 gsf of privately owned open space. A supplemental transportation

²⁵ CHS Consulting Group. 2015. Transportation Impact Study. November 2015. This document is on file and available for public review as part of Case File No. 2014.0408.

study was prepared to reflect the proposed project's transportation impacts in light of this change in project composition.²⁶

Project Setting

The project site is in San Francisco's Downtown/Civic Center neighborhood and bounded by Market Street to the north, Stevenson Street to the south, and two seven-story commercial buildings to the east and west. In the project area, streets that run in the northwest/southeast direction (i.e., Sixth, Seventh, Eighth Streets) are generally referred to as north/south streets, whereas streets that run in the southwest/northeast direction (i.e., Market, Mission Streets) are generally referred to as east/west streets. The project site's block is bounded by Sixth Street to the east and Seventh Street to the west. The roadway network surrounding the project site south of Market Street is generally an east/west and north/south grid. In the project vicinity, Sixth Street has two travel lanes in each direction. Seventh Street is a northbound one-way roadway with four travel lanes and on-street parking on both sides of the street. Stevenson Street is a one-way street with one eastbound travel lane and parking on the south side of the street from Seventh Street to Fifth Street and becomes a two-way street with two travel lanes and parking on the north side of the street west of Seventh Street. Within the project vicinity, Market Street is a two-way street with generally two travel lanes in each direction. Left turns are not permitted on Market Street between Franklin Street and Drumm Street. On-street parking is prohibited on Market Street between Franklin Street and The Embarcadero, with the exception of recessed passenger loading and delivery zones on both sides of the street.

On Market Street, streetcars operate two ways in the center lanes between Steuart Street and 17th Street. Buses operate two ways in the center and outer lanes. Transit stops for buses and streetcars are located both at the curb and at raised center islands along the corridor. Intersections with all major streets are controlled by traffic signals. Market Street generally has high pedestrian volumes compared with other streets in the area because of the greater concentration of commercial uses, the BART station entrances, and Muni surface transit stops. Because of its wide sidewalks (25 to 35 feet), Market Street accommodates heavier pedestrian volumes without resulting in pedestrian congestion.

In the project area, there are Class II bikeways along Seventh Street (Route 23), Market Street (Route 50), and McAllister Street (Route 20).²⁷ Existing sidewalks in the project vicinity, other than those on Market Street, are approximately 6 to 15 feet wide.

The project site is well served by nearby local public transit service provided by Muni. There are 19 Muni transit routes in the immediate vicinity of the project area (F Market/Wharves, J Church, K Ingleside/T Third, L Taraval, M Oceanview, N Judah, 5 Fulton, 5R Fulton Rapid, 6

²⁶ SF Planning Department, Memo to File-Revised Project-1055 Market Street TIS, October, 2017.

²⁷ On-street bicycle facilities include Class I bikeways (bike paths with exclusive rights-of-way for use by bicyclists or pedestrians), Class II bikeways (bike lanes striped within the paved areas of roadways and established for the preferential use of bicycles), and Class III bikeways (signed bike routes that allow bicycles to share travel lanes with vehicles).

Parnassus, 7 Haight/Noriega, 7R-Haight-Noriega Rapid, 7X – Noriega Express, 9 San Bruno, 9R San Bruno Rapid, 14 Mission, 14R Mission Rapid, , 19 Polk, 21 Hayes). Regional service is provided primarily by BART at the Civic Center/UN Plaza (located about 0.2 mile southwest of the project site). In addition, the Muni bus routes that serve the project area provide connections (transfers) to other regional transit providers, including AC Transit, Caltrain, SamTrans, and Golden Gate Transit.

Vehicle Miles Traveled in San Francisco and Bay Area

CEQA Section 21099(b)(1) requires that the State Office of Planning and Research (OPR) develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." CEQA Section 21099(b)(2) states that upon certification of the revised guidelines for determining transportation impacts pursuant to Section 21099(b)(1), automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment under CEQA.

In January 2016, OPR published for public review and comment a *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*²⁸ recommending that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. On March 3, 2016, in anticipation of the future certification of the revised CEQA Guidelines, the San Francisco Planning Commission adopted OPR's recommendation to use the VMT metric instead of automobile delay to evaluate the transportation impacts of projects (Resolution 19579). (Note: the VMT metric does not apply to the analysis of project impacts on non-automobile modes of travel such as transit, walking, and bicycling.)

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

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

²⁸ This document is available online at: *https://www.opr.ca.gov/s_sb743.php*.

neighborhoods, to even larger zones in historically industrial areas like the Hunters Point Shipyard.

The San Francisco County Transportation Authority (Transportation Authority) uses the San Francisco Chained Activity Model Process (SF-CHAMP) to estimate VMT by private automobiles and taxis for different land use types. Travel behavior in SF-CHAMP is calibrated based on observed behavior from the California Household Travel Survey 2010–2012, Census data regarding automobile ownership rates and county-to-county worker flows, and observed vehicle counts and transit boardings. SF-CHAMP uses a synthetic population, which is a set of individual actors that represents the Bay Area's actual population, who make simulated travel decisions for a complete day. The Transportation Authority uses tour-based analysis for office and residential uses, which examines the entire chain of trips over the course of a day, not just trips to and from a project. For retail uses, the Transportation Authority uses trip-based analysis, which counts VMT from individual trips to and from the project (as opposed to the entire chain of trips). A trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and the summarizing of tour VMT to each location would over-estimate VMT.^{29,30}

For purposes of the Department's VMT analysis, hotel uses are treated as residential uses. For residential development, the regional average daily VMT per capita is 17.2. For retail development, regional average daily work-related VMT per employee is 14.9. Table 3, Daily Vehicle Miles Traveled, includes VMT data for the transportation analysis zone (TAZ) in which the project site is located (TAZ 666).

²⁹To state another way: a tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, for example, a coffee shop on the way to work and a restaurant on the way back home, both retail locations would be allotted the total tour VMT. A trip-based approach allows us to apportion all retail-related VMT to retail sites without double-counting.

³⁰San Francisco Planning Department. 2016., Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A. March 3, 2016.

Table 3: Daily Vehicle Miles Traveled

	Existing			Cumulative 2040			
Land Use	Bay Area Regional Average	Bay Area Regional Average minus 15%	TAZ 666	Bay Area Regional Average	Bay Area Regional Average minus 15%	TAZ 666	
Households (Residential)	17.2	14.6	1.9	16.1	13.7	1.6	
Employment (Retail)	14.9	12.6	7.2	14.6	12.4	7.1	

Source: San Francisco Planning Department. 2017. *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis.* March 30. This document is on file and available for public review as part of Case File No. 2014.0408.

Vehicle Miles Traveled Impact Analysis Methodology

Vehicle Miles Traveled Analysis

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

Residential and Retail (and Similar) Projects

For the purposes of VMT analysis, hotel uses are treated as residential uses. For residential projects, a project would generate substantial additional VMT if it exceeds the regional household VMT per capita minus 15 percent.³¹ As documented in the California OPR *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* (proposed transportation impact guidelines), a 15 percent threshold below existing development is "both reasonably ambitious and generally achievable."³² For retail projects, the Planning Department uses a VMT efficiency metric approach for retail projects: a project would generate substantial additional VMT if it exceeds the regional VMT per retail employee minus 15 percent. This approach is consistent with CEQA Section 21099 and the thresholds of significance for other land uses recommended in OPR's proposed transportation impact guidelines. For mixed-use projects, each proposed land use is evaluated independently, per the significance criteria described previously.

OPR's proposed transportation impact guidelines provide screening criteria to identify types, characteristics, or locations of land use projects that would not exceed these VMT thresholds of significance. OPR recommends that if a project or land use proposed as part of a project meet any of the following screening criteria, VMT impacts are presumed to be less than significant for

³¹OPR's proposed transportation impact guidelines state that a project would cause substantial additional VMT if it exceeds both the existing City household VMT per capita minus 15 percent and existing regional household VMT per capita minus 15 percent. In San Francisco, the City's average VMT per capita is lower (8.4) than the regional average (17.2). Therefore, the City average is irrelevant for the purposes of the analysis.

³²This document is available online at: https://www.opr.ca.gov/s_sb743.php, page III: 20.

that land use and a detailed VMT analysis is not required. The screening criteria applicable to the proposed project and how they are applied in San Francisco are described as follows:

- Map-Based Screening for Residential and Retail Projects. OPR recommends mapping areas that exhibit VMT less than the applicable threshold for that land use. Accordingly, the Transportation Authority has developed maps depicting existing VMT levels in San Francisco for residential and retail land uses based on the SF-CHAMP 2012 base-year model run. The Planning Department uses these maps and associated data to determine whether a proposed project is located in an area of the City that is below the VMT threshold.
- Proximity to Transit Stations. OPR recommends that residential and retail projects, as well projects that are a mix of these uses, proposed within 0.5 mile of an existing major transit stop (as defined by CEQA Section 21064.3) or an existing stop along a high-quality transit corridor (as defined by CEQA Section 21155) would not result in a substantial increase in VMT. However, this presumption would not apply if the project would (1) have a floor area ratio of less than 0.75; (2) include more parking for use by residents, customers, or employees of the project than required or allowed, without a conditional use; or (3) is inconsistent with the applicable Sustainable Communities Strategy.³³

OPR's proposed transportation impact guidelines do not provide screening criteria or thresholds of significance for other types of land uses, other than those projects that meet the definition of a small project. The proposed project does not meet the small project criterion. Therefore, the Planning Department provides additional screening criteria and thresholds of significance to determine if land uses similar in function to residential and retail would generate a substantial increase in VMT. These screening criteria and thresholds of significance are consistent with CEQA Section 21099 and the screening criteria recommended in OPR's proposed transportation impact guidelines.

The Planning Department applies the Map-Based Screening and Proximity to Transit Station screening criteria to the following land use types:

- Tourist Hotels, Student Housing, Single-Room Occupancy Hotels, and Group Housing. Trips associated with these land uses typically function similarly to residential. Therefore, these land uses are treated as residential for screening and analysis.
- Childcare, K-12 Schools, Medical, Post-Secondary Institutional (non-student housing), and Production, Distribution, and Repair. Trips associated with these land uses typically function similarly to office. While some of these uses may have some visitor/customer trips associated with them (e.g., childcare and school drop-off, patient visits, etc.), those trips are often a side trip within a larger tour. For example, the visitor/customer trips are

³³ A project is considered to be inconsistent with the Sustainable Communities Strategy if development is located outside of areas contemplated for development in the Sustainable Communities Strategy.

influenced by the origin (e.g., home) and/or ultimate destination (e.g., work) of those tours. Therefore, these land uses are treated as office for screening and analysis.

• Grocery Stores, Local-Serving Entertainment Venues, Religious Institutions, Parks, and Athletic Clubs. Trips associated with these land uses typically function similar to retail. Therefore, these types of land uses are treated as retail for screening and analysis.

2040 Cumulative Conditions

San Francisco 2040 cumulative conditions were projected using an SF-CHAMP model run, using the same methodology as outlined in the Environmental Setting for existing conditions, but including residential and job growth estimates and reasonably foreseeable transportation investments through 2040. For residential development, the projected 2040 regional average daily VMT per capita is 16.1. For retail development, regional average daily retail VMT per employee is 14.6. Refer to Table 3, Daily Vehicle Miles Traveled, which includes the TAZ in which the project site is located (TAZ 666).

Travel Demand

The proposed project would meet the previously described criterion described for map-based screening of residential and retail projects, proximity to transit stations, and tourist/single room occupancy hotels. As such, potential transportation impacts are determined under the VMT analysis, and would not require an induced automobile travel analysis.

The proposed project would generate approximately 488 vehicle trips, 416 transit trips, 453 walking trips, and 91 "other mode" trips (bike, etc.) on a typical day. During the p.m. peak hour, the project would generate approximately 44 vehicle trips, 60 transit trips, 30 walking trips, and 7 other mode trips.³⁴

Impact TR-1: The proposed project would not cause substantial additional VMT or substantially induce automobile travel. (Less than Significant)

Vehicle Miles Traveled Analysis – Tourist Hotel

As mentioned previously, hotel uses are considered residential for the purposes of VMT analysis. The existing average daily residential VMT per capita is 1.9 for TAZ 666, in which the project site is located. This is 89 percent below the existing regional average daily residential VMT per capita of 17.2. Given that the project site is in an area where existing residential VMT is more than 15 percent below the existing regional average, the proposed project's hotel uses would not result in substantial additional VMT and impacts would be less than significant. Also, the project site meets the Proximity to Transit Stations screening criterion, which indicates that the proposed project's hotel uses would not cause substantial additional VMT.³⁵

³⁴ SF Planning Department, *Memo to File* – *Revised Project* – 1055 *Market Street TIS*, October, 2017.

³⁵ San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis, 2014.0408E,* March 30, 2017. This document is on file and available for public review at the San Francisco Planning Department as part of Case File 2014.0408E.

Vehicle Miles Traveled Analysis – Retail

As mentioned previously, existing average daily employment (retail) VMT per capita is 7.2 for TAZ 666, in which the project site is located. This is 52 percent below the existing regional average daily retail VMT per capita of 14.9. Given that the project site is in an area where existing retail VMT is more than 15 percent below the existing regional average, the proposed project's retail uses would meet the Map-Based Screening for Retail and Residential Projects criterion and would not result in substantial additional VMT; impacts would be less than significant.³⁶

Pursuant to Planning Code Section 169, the proposed project is required to develop and implement a Transportation Demand Management (TDM) plan to reduce vehicle trips and enhance travel modes such as transit, biking and walking. Because the proposed project submitted its Environmental Evaluation Application prior to September 5, 2016, the proposed project's TDM plan must meet 50% of the points required for similar projects that submitted applications after that date.³⁷ The proposed project's TDM plan meets Planning Code requirements through the provision of bicycle parking and from its having no on-site vehicle parking.

Induced Automobile Travel Analysis

The proposed project is not a transportation project. However, the proposed project would include features that would alter the transportation network. These features would include onstreet loading zones and removal of curb cuts. The proposed project would not include offstreet parking and would remove 3 on-street parking spaces and introduce a new passenger loading zone on Stevenson Street, a net reduction of on- street parking. These features fit within the general types of projects identified previously that would not substantially induce automobile travel. Therefore, impacts would be less than significant.

Impact TR-2: The project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, nor would the project conflict with an applicable congestion management program. (Less than Significant)

Congestion Management Program

The Transportation Authority, the Congestion Management Agency (CMA) for San Francisco, is responsible for developing and adopting a Congestion Management Program (CMP) for San Francisco on a biennial basis. As part of the CMP, the Transportation Authority is required to determine the level of service (LOS) for the CMP Network streets every two years. The Congestion Management Plan (CMP) Network is the network of freeways, state highways, major arterials and transit conflict streets established in accordance with state Congestion Management legislation.

³⁶ Ibid.

³⁷ San Francisco Planning Code, section 169.3.

CMP Network streets within the vicinity of the proposed project include Market Street, Mission Street, 6th Street, Golden Gate Avenue, and Turk Street. The LOS standard for streets within the CMP Network is generally LOS E, but CMP segments within Infill Opportunity Zones (IOZs) are exempt from LOS conformance requirements.³⁸ The roadway segments in the vicinity of the proposed project are located in IOZs and are therefore exempt from LOS conformance requirements. The proposed project would therefore not conflict with an applicable congestion management program, and impacts would be less than significant.

Construction

Construction of the project would be expected to take approximately 18 months. During this period, temporary and intermittent transportation impacts would result from truck travel to and from the project site during excavation and construction activities. Construction staging areas (e.g., for machinery/equipment or temporary parking for haul trucks) would most likely be located adjacent to the project site, specifically along Stevenson Street between Sixth and Seventh Streets.

Any construction traffic occurring between 7:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 6:00 p.m. would coincide with peak hour traffic and could temporarily impede traffic and transit flow, although it would not be considered a significant impact due to its temporary and intermittent nature. Improvement Measure I-TR-2a below requires feasible measures to further minimize disruption of the general traffic flow on adjacent streets during the a.m. and p.m. peak periods, such as limiting truck movements to hours approved upon by SFMTA.

Stevenson Street would likely need to be closed for 15 months of the construction period. Therefore, the project would require a temporary traffic control detour plan for Stevenson Street with signs on Seventh Street to allow for continuous traffic flow and circulation for all modes in the area, and such actions would be need to be coordinated with the City in order to minimize the impacts on local traffic. Improvement Measure I-TR-2b requires the project sponsor and contractor to develop a Construction Management Plan.

Throughout the construction period, there would be a flow of construction-related trucks into and out of the project site. Construction truck traffic would result in a temporary lessening of the capacities of local streets because of the slower movement and larger turning radii of the trucks, which may affect traffic operations. The project would generate up to 156 two-way trips (312 one-way trips) per day during peak construction periods. Construction workers who drive to the site would be able to park in nearby public parking facilities. Because the project site is located next to two BART stations (that also provide direct access to several Muni light-rail lines), construction workers would likely utilize bus and/or commuter/light-rail lines to access the project site and forego use of their own private vehicles. Construction-related impacts generally would not be considered significant because of their temporary and limited duration.

³⁸ San Francisco County Transportation Authority. 2015. Congestion Management Program. December. Available at: http://www.sfcta.org/sites/default/files/content/Planning/CongestionManagementPlan/2015/CMP_2015_FINAL.pdf

Although the project would have less-than-significant construction impacts, the project sponsor could implement the following improvement measures, which could further reduce the less-than-significant impacts on construction.

Improvement Measure I-TR-2a: Construction Truck Deliveries During Off-Peak Periods

As required, the project sponsor and construction contractor(s) could meet with the Sustainable Streets Division of the SFMTA, the Fire Department, Muni, and the Planning Department to determine feasible measures to reduce traffic congestion, including potential transit disruption and pedestrian circulation impacts during construction of the project. Feasible measures could include restricting truck movements to the hours of 9:00 a.m. to 3:30 p.m. or other times dependent upon approval by SFMTA. To minimize cumulative traffic impacts due to project construction, the Project Sponsor could coordinate with construction contractors for any concurrent nearby projects that are planned for construction or which later become known.

Improvement Measure I-TR-2b: Construction Management Plan

To reduce potential conflicts between construction activities and pedestrians, bicyclists, transit, and autos during construction activities, the project sponsors could require construction contractor(s) to prepare a traffic control plan for major phases of construction (e.g., demolition and grading, construction, or renovation of individual buildings). The project sponsors and their construction contractor(s) could meet with relevant City agencies to coordinate feasible measures to reduce traffic congestion, including temporary transit stop relocations and other measures to reduce potential traffic and transit disruption and pedestrian circulation effects during major phases of construction. For any work within the public right-of-way, the contractor could be required to comply with San Francisco's Regulations for Working in San Francisco Streets (i.e., the "Blue Book"), which establish rules and permit requirements so that construction activities can be done safely and with the least possible interference with pedestrians, bicyclists, transit, and vehicular traffic.

In the event that the construction timeframes of the major phases and other development projects adjacent to the project site overlap, the project sponsors could coordinate with City Agencies through the Transportation Advisory Staff Committee and the adjacent developers to minimize the severity of any disruption to adjacent land uses and transportation facilities from overlapping construction transportation impacts. The project sponsors, in conjunction with the adjacent developer(s), could propose a construction traffic control plan that includes measures to reduce potential construction traffic conflicts, such as coordinated material drop offs, collective worker parking, and transit to job site and other measures.

In addition, the project sponsor could include the following in the Construction Management Plan:

- Carpool and Transit Access for Construction Workers As an improvement measure to minimize parking demand and vehicle trips associated with construction workers, the construction contractor could include methods to encourage carpooling and transit use to the project site by construction workers in the Construction Management Plan contracts.
- Project Construction Updates As an improvement measure to minimize construction impacts on nearby businesses, the project sponsor could provide regularly-updated information (typically in the form of a website, news articles, on-site posting, etc.) regarding project construction and schedule, as well as contact information for specific construction inquiries or concerns.

Delivery Loading During Operation

Pursuant to *Planning Code* Section 152.1, developments with less than 10,000 gsf of retail uses and less than 100,000 gsf of hotel uses in C-3 districts are not required to provide off-street freight loading spaces. In compliance with the *Planning Code*, the project would not provide off-street loading spaces.

The new hotel uses would generate up to seven truck freight and service vehicle trips per day, which would result in a demand for less than one (0.3 to 0.4) loading space during the peak hour and average hour for loading activities. The retail uses could generate up to 15 truck freight and service vehicle trips per day, which would result in a demand for less than one (0.7 to 0.8) loading space during the peak hour and average hour for loading activities. The project would thus generate a combined demand for one freight/delivery loading space during the average hour of loading activities or two spaces during the peak hour.

The freight/loading demand generated by the project would be accommodated by existing onstreet loading spaces in the project vicinity. Two on-street loading zones are within 65 feet of the project: a 40-foot-long yellow loading zone along the south side of Stevenson Street and an 80foot-long yellow loading zone on the south side of Market Street. The field survey conducted for the TIS found that at least two loading spaces were available in these loading zones at any given time during a midday period from 1:00pm to 2:00pm. The proposed project is expected to generate a demand for about one loading space during the average hour (or up to two spaces during the peak hour). Therefore, the existing on-street loading spaces would generally meet the project's loading demand, and the loading impact of the project would be less than significant.

Passenger Loading During Operation

Passenger loading would be accommodated at the proposed 60-foot-wide passenger loading zone located on the south side of Stevenson Street. Three existing on-street parking spaces would be eliminated, and a white curb would be provided, if approved by the SFMTA.

Although the project would have less-than-significant impacts to passenger loading, the project sponsor could implement Improvement Measure I-TR-2c.

Improvement Measure I-TR-2c: Coordination of Large Deliveries and Trash Pick-up

Delivery trucks with lengths exceeding 40 feet could be scheduled and coordinated through hotel management and the retail tenant and prohibited from entering Stevenson Street. Such large delivery trucks could be directed to use the existing on-street loading spaces located on Market Street approximately 65 feet east of the project site.

To reduce the potential for parking of delivery vehicles within the travel lane adjacent to the curb lane on Stevenson Street or Market Street (in the event that the existing onstreet loading spaces are occupied), appropriate delivery procedures could be enforced to avoid any blockages of Stevenson Street or Market Street over an extended period of time and reduce any potential conflicts between deliveries and pedestrians walking along Stevenson Street or Market Street. Curb parking on Stevenson Street or Market Street could be reserved through SFMTA or by directly contacting the local 311 service.

The building manager could notify the hotel and retail tenants of garbage pick-up times and locations so that they are efficiently coordinated and result in minimum conflict with other traffic near the project.

Impact TR-3: The project would not substantially increase hazards due to a design feature or incompatible uses. (Less than Significant)

Construction

During the 18-month construction period, construction vehicles exiting and entering construction areas could slow and disrupt traffic flow on streets, and Stevenson Street would likely be closed to the public for 15 months of the construction period. For work within the public right-of-way, the contractor would be required to comply with San Francisco's Regulations for Working in San Francisco Streets (i.e., the "Blue Book"), which establish rules and permit requirements so that construction activities can be done safely and with the least possible interference with pedestrians, bicyclists, transit, and vehicular traffic. In addition, projects that entail full road and sidewalk closures are required to obtain a Special Traffic Permit from the SFMTA or receive SFMTA approval for a traffic routing plan. Additionally, Improvement Measure I-TR-2b a Construction Management Plan, above, could be developed by the contractor for the project. Compliance with City permitting and any Construction Management Plan requirements would ensure that construction traffic hazards as a result of the project do not significantly impact the public, and impacts would be less than significant.

Operation

No project design features are proposed that would substantially increase traffic-related hazards. The project would not introduce incompatible uses to the local transportation network. Transportation hazard impacts due to a design feature or resulting from incompatible uses would be less than significant.

Impact TR-4: The project would not result in inadequate emergency access. (Less than Significant)

Construction of the project would likely require temporary partial closure of Stevenson Street, but the closure would not apply to emergency vehicles and emergency access would be maintained. No other lanes would be closed during construction, and emergency access would not deteriorate on Market Street or other roads within the vicinity. The street network serving the project area currently accommodates the movements of emergency vehicles that travel to the project site. Emergency access would remain similar to existing conditions. Emergency vehicles would continue to access the project site from Market Street and Stevenson Street, which are immediately adjacent to the site. The project would generate additional traffic in the area; however, the increase in the number of vehicles would not be substantial compared to existing traffic volumes and would not impede or hinder the movement of emergency vehicles in the project area (e.g., from the neighboring fire stations [No. 1, No. 3, and No. 36]). The project's impact on emergency vehicle access would be less than significant.

Impact TR-5: The 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)

Construction

Construction of the project would not require the temporary relocation or closure of any existing Muni bus stops located along Market Street, nor would such activities require any temporary re-routing of existing Muni bus or light rail lines. Transit patrons would have continued access to nearby transit facilities throughout project construction, and no impacts would occur to transit facilities during construction.

Construction of the project would require the temporary closure of Stevenson Street. No dedicated bike lane exists on this street, but bicyclist and pedestrian access to the Stevenson Street and its sidewalks would be suspended during 15 months of the construction period. Pedestrian and bicyclists would be rerouted onto nearby streets and sidewalks, and full access would be restored following construction. Therefore, construction impacts to pedestrian and bicyclist facilities would be less than significant.

Operation

Public Transit. As described above, the project site is well served by nearby local public transit services. The project would generate an estimated 60 new p.m. peak-hour transit trips, which would be dispersed along the various transit lines within the project vicinity. To analyze potential impacts on these transit facilities, the maximum load points near the project site were identified, and project-generated transit trips were added and compared with the transit providers' capacity utilization standard. For Muni, the standard is 85 percent of capacity, and for regional providers, the standard is 100 percent of capacity. Implementation of the project would marginally increase capacity utilization on the affected Muni corridors and sub-corridors

as well as across screenlines³⁹ of regional transit providers,⁴⁰ but would not exceed local or regional capacity utilization standards.

The project would not introduce any design features that would preclude or significantly alter access to nearby transit facilities. The proposed streetscape treatments along the adjacent sidewalks (e.g., bicycle racks on Market Street and street trees on Stevenson Street) would not result in the relocation or modification of the existing Muni bus stop fronting the project on Market Street. The project would provide continued pedestrian access to nearby bus stops and commuter-rail/light-rail transit stations (i.e., along Market Street) and would not result in any obstructions or hindrances with respect to transit access by pedestrians and other users.

Although implementation of the project would generate traffic along nearby local roadways that currently serve as bus transit routes (e.g., Market Street, Seventh Street and Sixth Street), it would not result in substantial conflicts between project-generated vehicles destined for the project site and transit vehicles. These streets include adequate travel lanes (and roadway capacity) to allow transit vehicles to bypass any vehicles that attempt to access the project site. Because the project would not substantially affect utilization of the local and regional transit lines or the operations of the adjacent bus transit routes, the impacts of the project on transit would be less than significant.

Pedestrian Facilities. The project would generate 90 pedestrian trips, including 60 transit trips and 30 walking trips, during a typical weekday p.m. peak hour. The new pedestrian trips generated by the project could be accommodated on the existing sidewalks and crosswalks adjacent to the project site, and the proposed streetscape changes to sidewalk areas would enhance the pedestrian experience of the area. The potential increase in the number of pedestrian trips would not result in substantial overcrowding along sidewalk areas or at nearby transit stops and stations because the existing and future sidewalks that include such transit facilities would be able to accommodate the minor projected increase in demand.

Although the project would result in an increase in the number of vehicles near the project site, this increase would not be substantial enough to create potentially hazardous conditions for pedestrians or otherwise substantially interfere with pedestrian accessibility to the site and adjoining areas. Conversely, the proposed pedestrian improvements would improve the pedestrian experience within the project environs (per the *Better Streets Plan* requirements). The project would, therefore, promote pedestrian travel and enhance safety and comfort for those walking in and around the project site.

³⁹ Hypothetical lines that would be crossed by persons traveling between downtown and its vicinity and other parts of San Francisco and the Bay Area

⁴⁰ A transit screenline is a strategically-placed imaginary line (for example, a north–south or east-west line representing the border of a downtown area). Summing transit vehicle and ridership data across this line indicates the volume of traffic entering or leaving a particular area of the City. Screenlines are used to describe the magnitude of travel from or to the downtown area and its vicinity and to compare estimated transit volumes to available capacities for each transit operator.

The project would not result in an increase in the amount of overcrowding on public sidewalks, interfere with pedestrian circulation to nearby areas and buildings, or create potentially hazardous conditions for pedestrians. The project would not introduce any design features that would conflict with current City plans to improve the pedestrian network in and around the project site (e.g., *Better Streets Plan*, San Francisco "Walk First" project). Pedestrian impacts resulting from the project would be less than significant.

Bicycle Facilities. The project would not introduce any design features that would eliminate or impede access to existing bicycle routes in proximity to the project site (Route 20 along McAllister Street, Route 23 along Seventh and Eighth Streets, and Route 50 along Market Street). There are no bicycle routes on Stevenson Street, where passenger and freight loading activities serving the project site would mostly occur. Therefore, the project would not result in any potential conflicts between bicyclists and vehicles entering the project site. Although the project would result in an increase in the number of vehicles near the project site, this anticipated increase would not be substantial enough to create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas. The anticipated increase in the number of bicyclists associated with the project would be accommodated by existing bicycle network facilities near the project site.

Sections 155.1, 155.2, and 155.3 of the *Planning Code* require a minimum number of bicycle parking spaces, based on the proposed number of hotel rooms and occupied floor area of retail uses. Per the *Planning Code*, hotels must provide one Class 1 bicycle parking space for every thirty rooms with the minimum of two spaces. Therefore, a 160-room hotel would require five Class 1 spaces. Retail uses are required to provide one Class 1 space for every 7,500 square feet; therefore, no Class 1 bicycle spaces would be required for the proposed retail use.

One Class 2 bicycle parking space is required for every 30 hotel rooms with a minimum of two spaces, and one Class 2 bicycle parking space is required for every 2,500 square feet of retail space, with a minimum of two spaces. Therefore, eight Class 2 bicycle spaces would be required for the project (six spaces for hotel use and two spaces for retail use). The project would provide five Class 1 and eight Class 2 bicycle spaces, meeting the Class 1 and Class 2 bicycle space requirements. Therefore, the project would result in less-than-significant impacts related to bicycle facilities.

Impact C-TR-1: The proposed project, in combination of past, present, and reasonably foreseeable future projects, would not result in a considerable contribution to cumulative regional VMT. (Less than Significant)

VMT, by its very nature, is largely a cumulative impact. The VMT associated with past, present, and future projects contributes to physical secondary environmental impacts. It is likely that no single project by itself would be sufficient in size to prevent the region or state from meeting its VMT reduction goals. Instead, a project's individual VMT contributes to cumulative VMT impacts. The VMT and induced automobile travel project-level thresholds are based on levels at which new projects are not anticipated to conflict with state and regional long-term greenhouse gas emission reduction targets and statewide VMT per capita reduction targets set in 2020.

Therefore, because the proposed project would not exceed the project-level thresholds for VMT and induced automobile travel (Impact TR-1), the proposed project would not be considered to result in a cumulatively considerable contribution to VMT impacts.

Furthermore, as shown in Table 3, Daily Vehicle Miles Traveled, for TAZ 666, in which the proposed project is located, projected 2040 average daily residential VMT per capita is 1.6, and projected average daily retail VMT per capita is 7.1. This is approximately 90 percent and 51 percent below the projected 2040 regional average daily VMT per capita of 16.1 and 14.6 for residential and retail uses, respectively. Therefore, the proposed project's residential and retail uses would not contribute considerably to any substantial cumulative increase in VMT.

Impact C-TR-2: The project, in combination with past, present, and reasonably foreseeable future projects, would result in less-than-significant cumulative impacts related to transportation. (Less than Significant)

Transit

An analysis of transit impacts across the Muni and regional screenlines was conducted as part pf the TIS to determine the extent to which an increase in the number of transit trips associated with the project would affect local and regional transit lines under cumulative (2040) conditions. It was assumed that a proportion of the estimated number of transit trips associated with the project would cross all of the downtown San Francisco screenlines, and a proportion of the transit trips would cross regional screenlines (by bus and/or light-rail transfers). Because it is reasonable to expect that a proportion of the project-generated transit trips would instead begin and end in the greater downtown area (i.e., C-3 District) and utilize local transit lines that currently do not cross any established screenlines in the outbound p.m. peak-hour direction, these new transit trips were not included in the screenline analysis.

Table 4 presents projected transit demand among the Muni screenlines with implementation of the project. By 2040, ridership levels on Muni lines are projected to generally grow faster than the projected increases in capacity. In addition, overall p.m. peak-hour ridership across the screenlines would increase in 2040 compared to existing conditions. However, in some instances, total capacity at the screenlines is expected to increase enough by 2040 so that aggregate capacity utilization would be greater than the 85 percent standard across the screenline. This analysis would consider the proposed project's contribution of riders to local and regional transit lines to be cumulatively considerable if the contribution exceeded one percent. According to Table 4, the total project contribution to transit demand is 0.08%; therefore, the proposed project would not result in a cumulatively considerable impact on transit.

		PM Peak Ho	our	PM Peak Hour						
Screenline/Corridor	Ridership	Capacity	Utilization	Project Trips	Project Contribution					
Northeast										
Kearny/Stockton	6,295	8,329	76%	2	-					
All Other Lines	1,229	2,065	60%	2	-					
Screenline Total	7,524	10,394	72%	4	-					
		Nor	thwest							
Geary	2,996	3,621	83%	2	-					
California	1,766	2,021	87%	1	0.06%					
Sutter/Clement	749	756	99%	1	0.13%					
Fulton/Hayes	1,762	1,878	94%	2	0.11%					
Balboa	776	974	80%	2	-					
Screenline Total	8,049	9,250	87%	8	0.10%					
		Sou	itheast							
Third Street	2,300	5,712	40%	1	-					
Mission	2,673	3,008	89%	3	0.01%					
San Bruno/Bayshore	1,817	2,134	85%	3	0.17%					
All Other Lines	1,582	1,927	82%	4	-					
Screenline Total	8,372	12,781	66%	11	0.13%					
	1	Sou	thwest							
Subway Lines	5,692	6,804	84%	4	-					
Haight/Noriega	1,265	1,596	79%	0	-					
All Other Lines	380	840	45%	0	-					
Screenline Total	7,337	9,240	79%	5	-					
Muni Screenlines Total	31,282	41,665	75%	27	0.08%					

Table 4: Cumulative 2040 Transit Demand among Muni Screenlines: PM Peak Hour (Outbound)

Sources: San Francisco Planning Department. 2014. Regional and Local 2040 Cumulative Transit Screenlines for Transportation Impact Studies. March 10; CHS Consulting Group, 2015. BOLD indicates that sub-corridors are operating above the Muni standard utilization rate of 85 percent.

The California, Sutter/Clement, and Fulton/Hayes sub-corridors within the northwest screenline would operate above Muni utilization standards, at 87, 99, and 94 percent, respectively. The northwest screenline would operate at 87 percent. The project would contribute less than one percent to these sub-corridors and the entire screenline; therefore, the project's contribution to this screenline and subcorridors would be less than considerable under 2040 conditions.

The Mission and San Bruno/Bayshore sub-corridors within the southeast screenline would operate at or above Muni utilization standards, at 89 percent and 85 percent, respectively under 2040 conditions. The project would contribute less than one percent to these sub-corridors and the entire screenline; therefore, the project's contribution to this screenline and sub-corridors would not be cumulatively considerable under 2040 conditions.

Although the subway lines within the southwest screenline would operate at 84 percent, under 2040 conditions, the additional five transit trips generated by the project would not increase ridership to a level that would exceed the 85 percent capacity utilization performance standard. Therefore, the increase would continue to be less than significant under 2040 conditions.

Under 2040 cumulative conditions, transit ridership on regional transit lines is not projected to exceed the available capacity at several corridors, and capacity utilization standards would be met for all regional providers across all screenlines. Table 5 summarizes the project's contributions to 2040 cumulative ridership for the regional transit operators. Overall, the increase in regional transit trips generated by the project would contribute less than one percent to all regional screenlines, and ridership levels would continue to be below the 100 percent capacity utilization performance standard. Cumulative impacts to regional screenlines would therefore be less than significant.

Regional Screenlines	PM	Peak Hour (Outl	PM Peak Hour (Outbound)		
	Ridership	Capacity	Utilization	Project Trips	Project Contribution
East Bay	<u> </u>		I		
BART	30,383	33,170	92%	13	-
AC Transit	7,000	12,000	58%	5	-
Ferries	5,319	5,940	90%	0	-
Screenline Total	42,702	51,110	84%	18	0.04%
North Bay					
GGT buses	2,070	2,817	74%	9	-
Ferry	1,619	1,959	83%	2	-
Screenline Total	3,689	4,776	77%	11	0.30%
South Bay					
BART	13,971	24,182	59%	8	-
Caltrain	2,529	3,600	70%	1	-
SamTrans	150	320	47%	2	-
Ferries	59	200	30%	-	-
Screenline Total	16,709	28,302	59%	11	0.07%
Regional Screenlines Total	63,100	84,188	75%	40	0.06%

Sources: San Francisco Planning Department. 2014. Regional and Local 2040 Cumulative Transit Screenlines for Transportation Impact Studies. March 10; CHS Consulting Group, 2015.

BOLD indicates that sub-corridors are operating above the Muni standard utilization rate of 85 percent.

For local transportation operations, the exceedance of Muni's capacity utilization performance standard would be a cumulatively significant impact. However, according to the TIS, new transit trips associated with the project would not constitute a considerable contribution to this cumulatively significant impact. The additional transportation analysis conducted for the proposed project also concluded the project would not result in a substantially larger project than that analyzed in the TIS, such that new significant impacts would occur under existing plus project or under cumulative conditions. For regional transportation operations, the project, in combination with past, present, and reasonably foreseeable developments in San Francisco, would result in less-than-significant cumulative impacts by 2040.

Pedestrian Facilities

Pedestrian circulation impacts by their nature are site specific and generally do not contribute to impacts from other development projects. As described in Impact TR-4, the project would not result in overcrowding of sidewalks or create new, potentially hazardous conditions for pedestrians under cumulative conditions. Conversely, the project would modify the pedestrian circulation in and around the project site by reconstructing sidewalks along Stevenson Street and include specific pedestrian-oriented streetscape treatments in accordance with the *Better Streets Plan*, as applicable. The project would allow for continued pedestrian circulation and crossings while also continuing to provide adequate capacity for pedestrian travel in and around the project site.

The number of walking trips may increase between the completion of the project and future conditions because of the increasing effectiveness of planned pedestrian improvements near the project site, including the project's streetscape plan and other improvements per the *Better Market Street Plan, Safer Market Street*, and *Sixth Street Improvement Project*. Although it is assumed that the number of walking trips between the project site, transit stops/stations, and other uses in the vicinity of the project may increase over time, improvements to the pedestrian network would accommodate this potential increase in pedestrian activity (through streetscape improvements, safer crossing features, wayfinding measures, etc.), and operation of the project in combination with other future developments in the area would not reach a level that would induce overcrowding on area sidewalks under cumulative conditions.

A projected increase in background vehicle traffic between existing plus project and 2040 cumulative conditions is expected. This increase in vehicle traffic would result in an increase in the potential for vehicle/pedestrian conflicts at intersections in the study area. The project, however, would not create potentially hazardous conditions for pedestrians or otherwise interfere with pedestrian accessibility to the site and adjoining areas (as previously mentioned, improvements measures to reduce potential pedestrian impacts have been included as a part of this analysis) for the 2040 cumulative scenario. The additional transportation analysis conducted for the proposed project also concluded the project would not result in a substantially larger project than that analyzed in the TIS, such that new significant impacts would occur under existing plus project or under cumulative conditions. Given these findings, the project, in combination with past, present, and reasonably foreseeable developments in San Francisco, would result in less-than-significant cumulative pedestrian impacts.

Bicycle Facilities

The project would not substantially contribute to cumulative bicycle circulation or hazardous conditions in the project area. Bicycle trips in the area may increase between the completion of the project and the 2040 cumulative scenario because of general growth in the area. The project would not reduce access to the existing bicycle routes along Market, Seventh, and Eighth streets, and these facilities would be able to accommodate any potential increase in the number of bicycle trips over time and under 2040 cumulative conditions. Therefore, the potential increase in bicycle trips generated by the project would not reach a level that would create potentially hazardous conditions for bicyclists.

As described above, under cumulative conditions, there is a projected increase in vehicles at intersections near the project, which may result in an increase in vehicle/bicycle conflicts at intersections in the study area. Although there would be a general increase in vehicle traffic, which is expected through future 2040 cumulative conditions, the project would not contribute to potentially hazardous conditions for bicycles or otherwise interfere with bicycle accessibility to the project site and adjoining areas or substantially affect nearby bicycle routes. The additional transportation analysis conducted for the proposed project also concluded the project would not result in a substantially larger project than that analyzed in the TIS, such that new significant impacts would occur under existing plus project or under cumulative conditions. Based on these findings, the project, in combination with past, present, and reasonably foreseeable developments in San Francisco, would result in less-than-significant cumulative impacts on bicyclists.

Loading

Loading impacts are by their nature localized and site specific and would not contribute to impacts from other development projects near the project site. The project would not result in significant loading impacts because the estimated loading demand would be met by the existing on-street loading spaces (as previously discussed in Impact TR-2 above). Appropriate improvement measures have been included to reduce any potential loading impacts (see Improvement Measure I-TR-1c). Therefore, based on these findings, the project, in combination with past, present, and reasonably foreseeable developments in San Francisco, would result in less-than-significant cumulative loading impacts.

Parking

Public Resources Code Section 21099(d), effective January 1, 2014, provides that "aesthetics and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment." As the proposed project is an employment center project on an infill site within a transit priority area, this IS does not consider the adequacy of parking in determining the significance of project impacts under CEQA. Therefore, this analysis presents parking demand and supply requirements under the *Planning Code* for informational purposes.

Parking conditions are not static because parking supply and demand varies from day to day, from day to night, from month to month, etc. The availability of parking spaces (or lack thereof)

is not a permanent physical condition but changes over time as people change their modes and patterns of travel. 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 or other modes (walking and biking) would be in keeping with the City's "Transit First" policy and numerous General Plan polices, including those in the Transportation Element. The City's Transit First policy, established in the City Charter, Article 8A, Section 8A, Section 115, provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation."

The transportation analysis accounts for potential secondary effects, such as drivers who are circling and looking for a parking space in areas of limited parking supply, by assuming that all drivers would attempt to find parking at or near the project site and then seek parking farther away if convenient parking is unavailable. The secondary effects of drivers who search for parking are typically offset by a reduction in the number of vehicle trips due to others who are aware of constrained parking conditions in a given area and thus choose to reach their destination by other modes (i.e., walking, biking, transit, taxi, car sharing). If this occurs, any secondary environmental impacts that may result from a shortfall in parking in the vicinity of the project would be minor, and the traffic assignments used in the transportation analysis, as well as in the associated air quality, noise, and pedestrian safety analyses, would reasonably address potential secondary effects.

The parking demand for the project was based on the methodology presented in the Transportation Guidelines. On an average weekday, the demand for parking would be 64 spaces, including 60 long-term parking spaces and about four short-term spaces. Three on-street parking spaces along the south side of Stevenson Street would be eliminated to provide a 60-foot passenger loading zone for the project. Off-street spaces would not be provided at the project site. Thus, as proposed, the project would have an unmet parking demand of an estimated 67 spaces.

During the weekday evening hours, available parking is found in the vicinity of the project; between a third and nearly a half of the on- and off-street parking spaces are not occupied (about 27 percent availability for on-street parking and about 48 percent availability for off-street parking near the project site).⁴¹ Given the anticipated parking demand associated with the project and the estimated unmet demand for on-site off-street parking, visitors to the project may experience a low to moderate degree of difficulty finding available parking during the weekday evening hours. Although future visitors to the project site is well served by alternative modes of transportation, as described above.

⁴¹ CHS Consulting Group, 2015.

The project is located within the C-3-G zoning district, which does not include any minimum parking requirements. Instead, for hotel uses, per *Planning Code* Section 151.1, a parking ratio of up to 1 space per 16 guest rooms is permitted. Retail uses are allowed to provide a parking area that is not to exceed seven percent of the gross floor area of such uses. The project would be in compliance with the off-street parking requirements set forth in the *Planning Code*.

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
5.	NOISE— Would the project:					
a)	Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?					
b)	Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?					
c)	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?					
d)	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?					
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?					
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?					
g)	Be substantially affected by existing noise levels?			\boxtimes		

The project site is not located within an airport land use plan area or near a private airstrip. Therefore, Topics 5e and 5f are not applicable to the project.

Impact NO-1: The project would not result in a substantial permanent increase in ambient noise levels in the project vicinity, expose persons to noise levels in excess of standards established in the local general plan or noise ordinance, or be substantially affected by existing noise levels. (Less than Significant)

Ambient Noise Levels

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). The sound pressure level is the most common descriptor for characterizing the loudness of an ambient (existing) sound level. A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level"), which is measured in dB. Although the dB scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called A-weighting, written as dBA and referred to as A-weighted decibels.

Human sound perception is such that a change in sound level of 1 dB generally cannot typically be perceived by the human ear, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases, respectively.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (such as L₁₀, L₂₀), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). L_{dn} and CNEL values differ by less than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent.

For a point source, such as a stationary compressor or a piece of construction equipment, sound attenuates (lessens in intensity) at a rate of 6 dB per doubling of distance. For a line source, such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance.⁴²

Ambient noise levels near the project site are typical of noise levels in downtown San Francisco, which are dominated by vehicular traffic, including trucks, cars, Muni buses, and emergency vehicles; and land use activities, such as commercial businesses and periodic construction-

⁴² California Department of Transportation. 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September. Available: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf. Accessed: November 29, 2015.

related noise from nearby development or street maintenance. Noises generated by such activities are common and generally accepted in urban areas.

The City of San Francisco's Noise Map identifies the traffic noise levels of roadways within San Francisco.⁴³ Most of San Francisco's neighborhoods are currently affected by traffic noise levels that exceed 60 L_{dn}. The project site is located along streets with modeled noise levels above 70 dBA L_{dn} (Market Street), and potential noise-generating land uses are nearby. A noise survey was conducted in the project area to measure actual noise levels at the project site.⁴⁴ The results of the noise survey are summarized below.

Ambient noise levels in the project area were measured at two long-term (LT) sites (24-hour measurements) and one short-term (ST) site (15-minute measurements). Long-term measurements were conducted by affixing the sound meters to a tree and a utility pole in the project area at heights of approximately 12 feet above the street level. The meters measured sound levels from September 14, 2016, to September 16, 2016. All relevant noise data metrics were recorded. LT-1 measured sound levels over a 24-hour period, but LT-2 only measured noise levels for a 12-hour period throughout evening, night and early morning hours due to construction occurring at a site nearby on Market Street. The Ldn was calculated by assuming daytime noise levels based on the results before and after the construction activities.

Short-term measurements were completed on September 15, 2016, and the sound-level meter was affixed to the roof of the existing structure fronting Market Street. Measurements were conducted and recorded for 15-minute intervals.

Table 6 and Table 7 present the results of the long-term and short-term noise measurement surveys, respectively. As shown in Table 6, L_{dn} values for the long-term measurement sites are approximately 76 dBA and 67 dBA. The measurement location with the highest L_{dn} (LT-1, 76 dBA) is located on Market Street, on the north side of the project site. Market Street is a corridor with substantial noise sources, including car, bus, and truck traffic; light rail vehicles; delivery vehicles; and human voices. LT-2 has a lower L_{dn} value and is located on the south side of the project site, on Stevenson Street.

⁴³ City and County of San Francisco Planning Department and Department of Public Health. 2009. Areas Potentially Requiring Noise Insulations. Available: <

http://default.sfplanning.org/publications_reports/library_of_cartography/Noise.pdf >. Accessed: November 30, 2016.

⁴⁴ Noise survey conducted by RGD Acoustics (2016). Data are available for review as part of Case File No. 2014.0408E. Long-term noise measurements were taken on September 14 and 16, 2016. Short-term noise measurements were taken on September 15, 2016.

Table 6: Long-Term Noise Measurement Results

Site #	Location	L _{dn}
LT-1	North side of project site, 22 feet north of project's property line	76
LT-2	South side of project site, 5 feet away from existing building	67*

Notes:

a All values are in units of dBA.

B For LT-1 measurements began between 12 p.m. and 1 p.m. on September 14, 2016, and ended between approximately 5 p.m. and 6 p.m. on September 15, 2016.

C For LT-2 measurements began at approximately 7p.m. on September 15, 2016, and ended at approximately 7 a.m. on September 16, 2016.

*Measurement adjusted to eliminate effect of daytime activities at nearby construction site Source: RGD Acoustics, 2016

Site #	Location	Start Time	L _{eq}	L1	L ₅₀	L90	L _{dn}	L _{max}
ST-1	5 feet above roof of the existing building, at façade edge closest to Market St.		67	65	62	65	73	Cars 65-70 Buses 66-79 Light Rail 68-76 Music and Voices 67-68

Notes:

a All values are in units of dBA.

b Measurements were taken on September 15, 2016.

Lmin and Lmax = minimum and maximum sound levels; Lxx = percentile-exceeded sound levels (such as L10, L50, etc.).

c. L_{dn} calculated based on correlation with simultaneous measurement at Monitor LT-1

Source: RGD Acoustics, 2016

As shown in Table 7, equivalent noise level (L_{eq}) values from the short-term noise measurements are 67 dBA. The dominant source of noise was transportation noise such as cars, buses, and light-rail vehicles. Noise from music was audible at times but did not necessarily dominate the average noise levels. Distant noise sources such as the nearby construction activities contributed to the background noise levels.

Operation of the project would result in an increase in traffic noise because there would be an increase in vehicle trips associated with the hotel and retail land uses at the project site. Almost all project-generated vehicular traffic would use Stevenson Street to access the project site. According to the TIS prepared for the project and summarized in Section 4, Transportation and Circulation, the project would generate 76 weekday p.m. peak-hour trips, which would result in an Ldn of 57 dBA at the setback of the buildings along Stevenson Street. The existing Ldn on Stevenson Street is 64 dBA. The project-generated traffic noise corresponds to a less than 1 dBA increase in traffic noise, which is below the 3 dBA increase needed to produce a barely noticeable change in traffic noise. Increased traffic from the project would not result in a substantial increase in noise.

The project would also include new fixed noise sources that would produce operational noise at the project site. The project would include a rooftop terrace. However, noise-intensive activities

such as events and food or drink service or live or amplified music would be prohibited in this space. Other permanent noise sources associated with the project could include noise from heating, ventilation, and air-conditioning (HVAC) equipment; noise from a backup generator, which would require monthly testing; and other minor building noise. Operation of this equipment would be subject to the City's Noise Ordinance (Article 29 of the San Francisco Police Code). Section 2909(b) regulates noise from mechanical equipment and other similar sources on commercial and industrial property. Mechanical equipment operating on commercial property must not produce a noise level more than 8 dBA above the ambient noise level outside of the property plane. The project would be subject to and would comply with the City's Noise Ordinance.

Based on the analysis above, the project would not result in a substantial permanent increase in ambient noise levels in the project vicinity, and impacts would be less than significant.

Exposure of Sensitive Receptors to Noise Levels in Excess of Standards

In a decision issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents except where a project or its residents may exacerbate existing environmental hazards (*California Building Industry Association v. Bay Area Air Quality Management District*, December 17, 2015, Case No. S213478. Available at:

http://www.courts.ca.gov/opinions/documents/S213478.PDF). Incremental increases in traffic-related noise attributable to implementation of the proposed project would be less than significant, and thus would not exacerbate the existing noise environment.

The general requirements for adequate interior noise levels are met by compliance with the acoustical standards required under the California Building Standards Code (California Code of Regulations Title 24)." Title 24 (Part 2, Volume 1) of the California Code of Regulations requires interior noise levels that are attributable to exterior noise sources to have a day-night average sound level (L_{dn}) of 45 or less in any habitable room.⁴⁵ The project would be required to comply with Title 24 standards and achieve an interior noise level of 45 dBA L_{dn} for hotel rooms and 50 dBA for commercial uses. Impacts would be less than significant.

⁴⁵ California Building Standards Commission. Title 24, California Code of Regulations, Section 1207.4. Available: <www.documents.dgs.ca.gov/bsc/prpsd_chngs/2013/AD-HOC/HCD-02-13-ET-Pt2-ADDENDUM-SRV.doc>. Accessed: November 30, 2016.

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

Construction Noise

Project construction would occur over approximately 18 months. During this time, construction equipment would generate noise as the existing building is demolished, the site is excavated, and the new building is constructed. Construction activities would generate noise and vibration that could be considered an annoyance by occupants of nearby properties. Construction activities would require the use of heavy trucks, excavating and grading equipment, material loaders, concrete breakers, and other mobile and stationary construction equipment. Construction would not include pile driving, and piles for the foundation would be drilled in place, not driven.⁴⁶

Construction noise would fluctuate, depending on the construction phase, equipment type and duration of use, and distance between noise source and receptor. The greatest construction-related noise and vibration impacts would generally be limited to the demolition phase and periods when new foundations and exterior structural and façade elements would be constructed. Interior construction noise would be substantially reduced by the exterior walls. Construction noise would be intermittent and limited to the period of construction. However, there would be times when noise could interfere with indoor activities at nearby residences or businesses.

Sensitive land uses that could be affected by project construction include De Marillac Academy (175 Golden Gate Avenue), Alsabeel Mosque (118 Jones Street), St. Anthony's Foundation (150 Golden Gate Avenue); and the Aspen Tenderloin Apartments (165 Turk Street). The nearest sensitive land uses to the project site are the potential live/work units in the structures on either side of the project site, Stevenson Lofts (529 Stevenson St), a homeless housing facility (39–42 Jones Street), 121 Golden Gate Avenue Apartments, 111 Jones Street Apartments, and SOMA Residences (1045 Mission).

Table 8 summarizes noise levels produced by the construction equipment that is anticipated to be used during construction activities. Noise levels are shown for various distances from the equipment assuming a standard attenuation rate of 6 dBA per doubling of distance. The noise levels shown for a distance of 25 feet are representative of receivers adjacent to the project site such as the neighboring buildings on Market Street (1059/1061 Market Street and 1049/1051 Market Street) and pedestrians along Market Street or Stevenson Street.

⁴⁶ RGD Acoustics. 2016. *Environmental Noise Study for 1055 Market Street Hotel*. December 2016. This document is on file and available for public review as part of Case File No. 2014.0408.

	Maximum Noise Level (L _{max}), dBA								
Equipment Description	at 25 ft	at 50 ft	at 100 ft	at 200 ft					
Non-Impact Equipment									
Auger Drill Rig	90	84	78	72					
Compactor (ground)	89	83	77	71					
Compressor (air)	84	78	72	66					
Concrete Pump Truck	87	81	75	69					
Crane	87	81	75	69					
Dozer	88	82	76	70					
Excavator	87	81	75	69					
Front End Loader	85	79	73	67					
Generator	87	81	75	69					
Gradall	89	83	77	71					
Pneumatic Tools	91	85	79	73					
Impact Equipment									
Jackhammer	95	89	83	77					
Mounted Impact Hammer (hoe ram)	96	90	84	78					
		•		•					

Table 8: Typical Noise Levels by Construction Equipment

Source: FHWA, Roadway Construction Noise Model User's Guide, 2006 Available:

http://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf>. Accessed: November 30, 2016.

Construction noise is regulated by the City's Noise Ordinance (Article 29 of the San Francisco Police Code), which requires noise levels from individual pieces of construction equipment, other than impact tools, to not exceed 80 dBA at 100 feet from the source. Impact tools must have both their intake and exhaust muffled to the satisfaction of the director of Public Works. Section 2908 of the City's Noise 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 director of Public Works. The project would be required to comply with regulations set forth in the Noise Ordinance.

A reasonable worst-case construction noise level assumes that the three loudest and most frequently used pieces of equipment would operate concurrently (generator, excavator, and concrete pump). The average noise level for these three pieces of equipment would be 75 dBA at 100 feet. The average noise level for the non-impact equipment is 76 dBA. Therefore, two to three equipment items operating within about 15 feet of the property line would have a combined noise level that would not exceed the Noise Ordinance limit of 80 dBA at a distance of 100 feet from the property line. As such, noise from construction equipment is anticipated to comply with the City's Noise Ordinance, and this impact would be less than significant.

Construction Vibration

Vibration from construction activity is typically below the threshold of perception when the activity is more than 50 feet from the receiver. The project is adjacent to two structures that potentially include live/work units, so it is possible that construction vibration would exceed levels that are considered an annoyance by commercial uses, live/work tenants, and customers in

adjacent structures, these annoyance levels would be temporary (i.e., initial phase of construction and within the hours required by the Noise Ordinance) and thus not considered excessive.

As discussed in Impact CR-1, two existing buildings that are likely historic resources are adjacent to the project site on either side, and ground-borne vibrations could cause damage to these older masonry buildings. Several different methods are used to quantify vibration; peak particle velocity (PPV) is most frequently used to describe vibration impacts on buildings. PPV is defined as the maximum instantaneous peak of the vibration signal and is expressed in inches per second. The Federal Transit Administration (FTA) significance criterion for non-engineered timber and masonry buildings (typically, historic buildings) is a PPV of 0.2 or greater; for engineered concrete and masonry buildings, the criterion is a PPV of 0.3 or greater.⁴⁷ Of the various pieces of construction equipment that generate vibration, vibrating pile drivers are associated with the greatest vibration levels. Other pieces of construction equipment that generate more significant vibration include clam shovels, which are used for slurry wall construction; bulldozers; jackhammers; and loaded trucks.

Table 9 identifies the typical vibration velocities generated by various types of construction equipment at reference distances of 10, 25, and 50 feet. As shown in Table 9, construction activity on the project site could cause vibration at the adjacent buildings to exceed the FTA vibration velocity threshold of 0.2 inch per second for historic buildings. If the buildings were damaged because of this vibration, it could cause a potentially significant impact to the buildings' historic significance.

	Vibration Level (PPV), in/sec			
Equipment	at 10 feet	at 25 feet	at 50 feet	
Vibratory Roller	0.58	0.21	0.10	
Hoe Ram	0.24	0.09	0.04	
Large bulldozer	0.24	0.09	0.04	
Caisson drilling	0.24	0.09	0.04	
Loaded trucks	0.21	0.08	0.04	
Jackhammer	0.10	0.04	0.02	
Small bulldozer	0.01	0.00	0.00	

Table 9: Vibration Source Levels for Construction Equipment

Source: Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment. Table 12-3. May. PPV – Peak Particle Velocity

DBI would be responsible for reviewing the building permit application to ensure that proposed construction activities, including shoring and underpinning, would comply with all applicable procedures and requirements. However, damage to adjacent buildings could still

⁴⁷ Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment. Table 12-3. May.

occur due to the sensitivity of historic adjacent masonry structures and vibration generated from equipment required for construction of the project. This would be a significant impact. Implementation of **Mitigation Measure M-CR-1: Vibration Monitoring and Management Plan** (see page 30, above) would reduce impacts due to vibration by requiring that the project sponsor set a performance standard for maximum vibration levels and use construction best practices to avoid vibration damage to adjacent historic buildings based on that performance standard. Monitoring would be required to document and remediate any damage to adjacent buildings caused by construction activities at the project site. Vibration impacts would be reduced to a less-than-significant level with implementation of this mitigation measure.

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

Construction

The proposed project would be required to comply with the San Francisco Noise Ordinance. Construction activities in the vicinity of the project site would occur on a temporary and intermittent basis. As a primary traffic corridor in downtown San Francisco, generation of intermittent construction noise would not contribute to excessive noise levels along Market Street. As with the proposed project, construction and operation of the cumulative projects would be subject to the San Francisco Noise Ordinances, and therefore, these activities are not anticipated to create significant cumulative construction related noise impacts.

Construction noise would be localized and, because of the physical nature of how noise dissipates with distance from its source, would affect primarily the land uses in the immediate vicinity of the construction equipment. Therefore, the geographic extent for cumulative noise impacts is the immediate surrounding area within a few hundred feet. Construction of the project could overlap with construction activities of other projects in the area, including the development site at 1066 Market Street. The 1066 Market Street site is located 220 feet away from the project, and construction noise levels decrease at a rate of 6 dBA per doubling of distance from the source. Assuming that land uses adjacent to one construction site would be exposed to a typical construction noise level of 85 dBA at a distance of 50 feet, the same construction activity at the other project site across the street would generate a noise level of 72 dBA (based on a distance of 220 feet). The combined noise level would be 85 dBA which would result in an increase in noise level of less than 1 dBA, which would not be detectible. For this reason, project construction would not result in a cumulatively considerable noise impact.

Similar to noise, construction vibration would be localized, and the vibration from construction activity is typically below the threshold of perception when the activity is more than 50 feet from the receiver. Residents in the project vicinity would not be expected to be exposed to excessive ground-borne vibration resulting from more than one project. For these reasons, project construction, in combination with the past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable vibration impact.

Operations

Noises in the area are generated by a mixture of retail, entertainment, hotel, residential, and office uses; however, noise sources in the area are primarily a result of vehicular traffic and pedestrian sounds, and are typical of noise levels found in San Francisco urban environments. The proposed project would include hotel and retail uses, which are common uses in the cumulative study area. Any rooftop mechanical equipment that would be a part of the proposed project or cumulative development would be reviewed by an acoustical specialist and DBI to ensure that the City's Noise Ordinance standards are met. Therefore, it is not anticipated that operation of the proposed project would contribute to any significant cumulative increases in ambient noise.

The proposed project and other cumulative projects in the vicinity are not anticipated to result in a doubling of traffic volumes.⁴⁸ Therefore, the increase in noise from cumulative traffic increases would be less than the 3 dBA increase needed to produce a barely noticeable change in traffic noise. The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a considerable significant cumulative noise impact.

⁴⁸ CHS Consulting Group. 2015. Transportation Impact Study. November 2015. This document is on file and available for public review as part of Case File No. 2014.0408.

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
6.	AIR QUALITY— Would the project:					
a)	Conflict with or obstruct implementation of the applicable air quality plan?			\boxtimes		
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?					
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)?					
d)	Expose sensitive receptors to substantial pollutant concentrations?		\boxtimes			
e)	Create objectionable odors affecting a substantial number of people?			\boxtimes		

Setting

Overview

The Bay Area Air Quality Management District ("air district") is the regional agency with jurisdiction over the nine-county San Francisco Bay Area Air Basin ("air basin"), which includes San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa Counties and portions of Sonoma and Solano Counties. The air district 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 air district has the responsibility to monitor ambient air pollutant levels throughout the air basin 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 2017 Clean Air Plan, was adopted by the air district on April 19, 2017. The 2017 Clean Air Plan updates the Bay Area 2010 Clean Air Plan 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 2017 Clean Air Plan contains the following primary goals:

• Protect Air Quality and Health at the Regional and Local Scale: Attain all state and national air quality standards, and eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and

• Protect the Climate: Reduce Bay Area Greenhouse Gas Emissions 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050.

The 2017 *Clean Air Plan* represents the most current applicable air quality plan for the air basin. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of air quality plans.

Criteria Air Pollutants

In accordance with the state and federal CAAs, air pollutant standards are identified for the following six criteria air pollutants: ozone, carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead. These air pollutants are termed criteria air pollutants because they are regulated by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. In general, the air basin experiences low concentrations of most pollutants when compared to federal or state standards. The air basin is designated as either in attainment⁴⁹ or unclassified for most criteria pollutants with the exception of ozone, PM_{2.5}, and PM₁₀, for which these pollutants are designated as non-attainment for either the state or federal standards. By its very nature, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in non-attainment of air quality impacts. If 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 10 identifies air quality significance thresholds followed by a discussion of each threshold. Projects that would result in criteria air pollutant emissions below these significance thresholds would not violate an air quality standard, contribute substantially to an air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants within the air basin.

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 for a specified criteria air pollutant.

⁵⁰ Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2017, page 2-1 – 2-2.

	Construction Thresholds	Operational Thresholds		
Pollutant	Average Daily Emissions (Ibs./day)	Average Daily Emissions (Ibs./day)	Maximum Annual Emissions (tons/year)	
ROG	54	54	10	
NO _X	54	54	10	
PM ₁₀	82 (exhaust)	82	15	
PM _{2.5}	54 (exhaust)	54	10	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable		

Table 10: Criteria Air Pollutant Significance Thresholds

ROG = reactive organic gases; NOX = oxides of nitrogen

Source: Bay Area Air Quality Management District. 2017. California Environmental Quality Act Air Quality Guidelines. May 2017.

Ozone Precursors. As discussed previously, the air basin is currently designated as nonattainment for ozone and particulate matter. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x). The potential for a project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, are based on the state and federal Clean Air Acts' emissions limits for stationary sources. To ensure that new stationary sources do not cause or contribute to a violation of an air quality standard, air district regulation 2, rule 2 requires that any new source that emits criteria air pollutants above a specified emissions limit must offset those emissions. For ozone precursors ROG and NO_x, the offset emissions level is an annual average of 10 tons per year (or 54 pounds (lbs.) per day).⁵¹ These levels represent emissions below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

Although this regulation applies to new or modified stationary sources, land use development projects result in ROG and NO_x emissions as a result of increases in vehicle trips, architectural coating and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of land use projects and those projects that result in emissions below these thresholds would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in ROG and NO_x emissions. Due to the temporary nature of construction activities, only the average daily thresholds are applicable to construction phase emissions.

Particulate Matter (PM₁₀ and PM_{2.5}).⁵² The air district has not established an offset limit for PM_{2.5}. However, the emissions limit in the federal New Source Review (NSR) for stationary sources in nonattainment areas is an appropriate significance threshold. For PM₁₀ and PM_{2.5}, the

⁵¹ BAAQMD, Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance, October 2009, page 17.

⁵² PM10 is often termed "coarse" particulate matter and is made of particulates that are 10 microns in diameter or smaller. PM2.5, termed "fine" particulate matter, is composed of particles that are 2.5 microns or less in diameter.

emissions limit under NSR is 15 tons per year (82 lbs. per day) and 10 tons per year (54 lbs. per day), respectively. These emissions limits represent levels below which a source is not expected to have an impact on air quality.⁵³ Similar to the ozone precursor thresholds identified above, land use development projects typically result in particulate matter emissions as a result of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of a land use project. As stated previously, 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 controls fugitive dust⁵⁴ and individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.⁵⁵ The air district has identified a number of BMPs to control fugitive dust emissions from construction activities.⁵⁶ The City's Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust and the BMPs employed in compliance with the City's Construction-related fugitive dust.

Other Criteria Pollutants. Regional concentrations of CO in the Bay Area have not exceeded the state standards in the past 11 years and SO2 concentrations have never exceeded the standards. The primary source of CO emissions from development projects is vehicle traffic. Construction-related SO2 emissions represent a negligible portion of the total basin-wide emissions and construction-related CO emissions represent less than five percent of the Bay Area total basin-wide CO emissions. As discussed previously, the Bay Area is in attainment for both CO and SO2. Furthermore, the air district has demonstrated, based on modeling, that in order to exceed the California ambient air quality standard of 9.0 ppm (8-hour average) or 20.0 ppm (1-hour average) for CO, project traffic in addition to existing traffic would need to exceed 44,000 vehicles per hour at affected intersections (or 24,000 vehicles per hour where vertical and/or horizontal mixing is limited). Therefore, given the Bay Area's attainment status and the limited CO and SO2 emissions that could result from a development projects, development projects would not result in a cumulatively considerable net increase in CO or SO2, and quantitative analysis is not required.

⁵³ BAAQMD, Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance, October 2009, page 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/dejf/fdh/content/FDHandbook_Rev_06.pdf*, accessed February 16, 2012.

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

⁵⁶ BAAQMD, CEQA Air Quality Guidelines, May 2017.

Local Health Risks and Hazards

In addition to criteria air pollutants, individual projects may emit toxic air contaminants (TACs). TACs collectively refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long-duration) and acute (i.e., severe but short-term) adverse effects to human health, including carcinogenic effects. Human health effects of TACs include birth defects, neurological damage, cancer, and mortality. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

Unlike criteria air pollutants, TACs do not have ambient air quality standards but are regulated by the air district using a risk-based approach to determine which sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated, and considered together with information regarding the toxic potency of the substances, to provide quantitative estimates of health risks.⁵⁷

Air pollution does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Land uses such as residences, schools, children's day care centers, hospitals, and nursing and convalescent homes are considered to be the most sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress or, as in the case of residential receptors, their exposure time is greater than that for other land uses. Therefore, these groups are referred to as sensitive receptors. Exposure assessment guidance typically assumes that residences would be exposed to air pollution 24 hours per day, 7 days per week, for 30 years.⁵⁸ Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

Exposures to fine particulate matter (PM_{2.5}) are strongly associated with mortality, respiratory diseases, and impaired lung development in children, as well as other effects such as hospitalization for cardiopulmonary disease.⁵⁹ In addition to PM_{2.5}, diesel particulate matter (DPM) is also of concern. The California Air Resources Board (ARB) identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans.⁶⁰ 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.

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.

⁵⁸ California Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spot Program Risk Assessment Guidelines*, February, 2015. Pg. 4-44, 8-6

⁵⁹ SFDPH, Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review, May 2008.

⁶⁰ California Air Resources Board (ARB), Fact Sheet, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," October 1998.

In an effort to identify areas of San Francisco most adversely affected by sources of TACs, San Francisco partnered with the BAAQMD to conduct a citywide health risk assessment based on an inventory and assessment of air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed the "Air Pollutant Exposure Zone," were identified based on health-protective criteria that considers estimated cancer risk, exposures to fine particulate matter, proximity to freeways, and locations with particularly vulnerable populations. The project site is located within the Air Pollutant Exposure Zone.⁶¹ Each of the Air Pollutant Exposure Zone criteria is discussed below.

Excess Cancer Risk. The above 100 per one million persons (100 excess cancer risk) criterion is based on United States Environmental Protection Agency (EPA) guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.⁶² As described by the air district, the EPA considers a cancer risk of 100 per million to be within the "acceptable" range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants (NESHAP) rulemaking,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 one million and (2) limiting to no higher than approximately one in ten thousand [100 in one million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years." The 100 per one million excess cancer cases is also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on air district regional modeling.⁶⁴

Fine Particulate Matter. In April 2011, the EPA published *Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards* ("Particulate Matter Policy Assessment"). In this document, EPA staff concludes that the then-current federal annual PM_{2.5} standard of 15 μ g/m³ should be revised to a level within the range of 13 to 11 μ g/m³, with evidence strongly supporting a standard within the range of 12 to 11 μ g/m³. The Air Pollutant Exposure Zone for San Francisco is based on the health protective PM_{2.5} standard of 11 μ g/m³, as supported by the EPA's Particulate Matter Policy Assessment, although lowered to 10 μ g/m³ to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

⁶¹ San Francisco Planning Department. 2014. Air Pollutant Exposure Zone Map. April 10, 2014. Available at: https://www.sfdph.org/dph/files/EHSdocs/AirQuality/AirPollutantExposureZoneMap.pdf. Accessed on August 10, 2016.

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.

Proximity to Freeways. According to the California Air Resources Board (California air board), studies have shown an association between the proximity of sensitive land uses to freeways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children. Siting sensitive uses in close proximity to freeways increases both exposure to air pollution and the potential for adverse health effects. As evidence shows that sensitive uses in an area within a 500-foot buffer of any freeway are at an increased health risk from air pollution,⁶⁵ lots that are within 500 feet of freeways are included in the Air Pollutant Exposure Zone.

Health-Vulnerable Locations. Based on the air district's evaluation of health vulnerability in the Bay Area, those zip codes (94102, 94103, 94105, 94124, and 94130) in the worst quintile of Bay Area Health vulnerability scores as a result of air pollution-related causes were afforded additional protection by lowering the standards for identifying lots in the Air Pollutant Exposure Zone to: (1) an excess cancer risk greater than 90 per one million persons exposed, and/or (2) PM_{2.5} concentrations in excess of 9 μ g/m³.⁶⁶

Construction Air Quality Impacts

Project-related air quality impacts fall into two categories: short-term impacts from construction and long-term impacts from project operation. The following impact analyses address construction-related air quality impacts resulting from the proposed project.

Impact AQ-1: The project's construction activities would generate fugitive dust and criteria air pollutants but would not violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. (Less than Significant)

Construction activities (short-term) typically result in emissions of ozone precursors and PM in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and PM are primarily a result of the combustion of fuel from on-road and offroad vehicles. However, ROGs are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving. The proposed project would include demolition of the existing vacant two-story building and construction of a new hotel with 160 rooms and 2,187 gsf of ground-floor retail space. During the project's approximately 18-month construction period, construction activities would have the potential to result in emissions of ozone precursors and PM, as discussed below.

⁶⁵ California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Available online at: http://www.arb.ca.gov/ch/landuse.htm.

⁶⁶ San Francisco Planning Department and San Francisco Department of Public Health, 2014 Air Pollutant Exposure Zone Map (Memo and Map), April 9, 2014. These documents are part of San Francisco Board of Supervisors File No. 14806, Ordinance No. 224-14 Amendment to Health Code Article 38

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 levels lower than national standards. The current health burden of particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. According to the ARB, reducing particulate matter PM_{2.5} concentrations to state and federal standards of 12 µg/m³ in the San Francisco Bay Area would prevent between 200 and 1,300 premature deaths.⁶⁷

Dust can be an irritant causing watering eyes or irritation to the lungs, nose, and throat. Demolition, excavation, grading, and other construction activities can cause wind-blown dust that adds particulate matter to the local atmosphere. Depending on exposure, adverse health effects can occur due to this particulate matter in general and also due to specific contaminants such as lead or asbestos that may be constituents of soil.

In response, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes generally referred to as the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) with the intent of reducing the quantity of dust generated during site preparation, demolition and construction work in order to protect the health of the general public and of onsite workers, minimize public nuisance complaints, and 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.

In compliance with the Construction Dust Control Ordinance, the project sponsor and the contractor responsible for construction activities at the project site would be required to use the following practices to control construction dust on the site or other practices that result in equivalent dust control that are acceptable to the Director. Dust suppression activities may include watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days)

⁶⁷ ARB, Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California, Staff Report, Table 4c, October 24, 2008.

greater than 10 cubic yards or 500 square feet of excavated material, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10 mil (0.01 inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques. CCSF Ordinance 175-91 restricts the use of potable water for soil compaction and dust control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of San Francisco, unless permission is obtained from the San Francisco Public Utilities Commission (SFPUC). Non-potable water must be used for soil compaction and dust control activities during project construction and demolition. The SFPUC operates a recycled water truck-fill station at the Southeast Water Pollution Control Plant that provides recycled water for these activities at no charge.

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 10, above, the air district, in its *CEQA Air Quality Guidelines* (May 2017), developed screening criteria. If a proposed project meets the screening criteria, then construction of the project would result in less-than-significant criteria air pollutant impacts. A project that exceeds the screening criteria may require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds. The *CEQA Air Quality Guidelines* note that the screening levels are generally representative of new development on greenfield⁶⁶ sites without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions.

The proposed project includes 160 hotel rooms, 2,187 gsf of retail space and approximately 1,200 cy of excavation. The size of proposed construction activities would be below the criteria air pollutant screening sizes for hotel uses (554 rooms), retail uses (277,000 sf),⁶⁹ and the amount of material transport (10,000 cy) identified in BAAQMD's *CEQA Air Quality Guidelines*. Thus, quantification of construction-related criteria air pollutant emissions is not required and the proposed project's construction activities would result in a less-than-significant criteria air pollutant impact.

⁶⁸ A greenfield site refers to agricultural or forest land or an undeveloped site earmarked for commercial, residential, or industrial projects.

⁶⁹ BAAQMD's *CEQA Air Quality Guidelines* do not include screening sizes for general retails uses. This analysis used the screening size for a convenience market, as it is the most comparable retail use to the planned development.

Impact AQ-2: The proposed project's construction activities would generate toxic air contaminants, including diesel particulate matter, which would expose sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)

The project site is located within the Air Pollutant Exposure Zone as described above. Sensitive land uses occur within 1,000 feet of the project site, including the potential live/work units in the buildings adjacent to the project site, Stevenson Lofts (529 Stevenson St), SOMA Residences (1045 Mission), Curry Senior Center (333 Turk Street), De Marillac Academy (175 Golden Gate Avenue), St. Anthony's Foundation (150 Golden Gate Avenue), 121 Golden Gate Avenue Apartments, a homeless housing facility (39–42 Jones Street), 111 Jones Street Apartments, Barcelona Apartments (270 Turk Street), Aspen Tenderloin Apartments (165 Turk Street), and the Aranda Residence (64 Turk Street).

With regards to construction emissions, off-road equipment (which includes constructionrelated equipment) is a large contributor to DPM emissions in California, although since 2007, the air district has found the emissions to be substantially lower than previously expected.⁷⁰Newer 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.⁷¹ For example, revised PM emission estimates for the year 2010, which DPM is a major component of total PM, have decreased by 83 percent from previous 2010 emissions estimates for the San Francisco air basin.⁷² 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.⁷³

Additionally, a number of federal and state regulations require cleaner off-road equipment. Specifically, both the EPA 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 were phased in between 2008 and 2015. To meet the Tier 4 emission standards, engine manufacturers are required to produce new engines with advanced emission-control technologies. Although the full benefits of these regulations will not be realized for several

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, p.1 and p. 13 (Figure 4), October 2010.

⁷¹ 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.

⁷² 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.

⁷³ 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.

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.⁷⁴

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."⁷⁵

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

The proposed project would require construction activities for the approximate 18-month construction period, resulting in short-term emissions of DPM and other TACs. The project site is located in an area that already experiences poor air quality and project construction activities would generate additional air pollution, affecting nearby sensitive receptors and resulting in a significant impact. Implementation of **Mitigation Measure M-AQ-2, Construction Air Quality**, would reduce the magnitude of this impact to a less-than-significant level. While emission reductions from limiting idling, educating workers and the public and properly maintaining equipment are difficult to quantify, other measures, specifically the requirement for equipment with Tier 2 engines and Level 3 Verified Diesel Emission Control Strategy (VDECS) can reduce construction emissions by 89 to 94 percent compared to equipment with engines meeting no emission standards and without a VDECS.⁷⁶ Emissions reductions from the combination of Tier

⁷⁴ USEPA, "Clean Air Nonroad Diesel Rule: Fact Sheet," May 2004.

⁷⁵ BAAQMD, CEQA Air Quality Guidelines, May 2017, page 8-7.

⁷⁶ PM emissions benefits are estimated by comparing off-road PM emission standards for Tier 2 with Tier 1 and 0. Tier 0 off-road engines do not have PM emission standards, but the United States Environmental Protection Agency's *Exhaust and Crankcase Emissions Factors for Nonroad Engine Modeling – Compression Ignition* has estimated Tier 0 engines between 50 hp and 100 hp to have a PM emission factor of 0.72 g/hp-hr and greater than 100 hp to have a PM emission factor of 0.40 g/hp-hr. Therefore, requiring off-road equipment to have at least a Tier 2 engine would result in between a 25 percent and 63 percent reduction in PM emissions, as compared to off-road equipment with Tier 0 or

2 equipment with level 3 VDECS is almost equivalent to requiring only equipment with Tier 4 Final engines. Therefore, compliance with Mitigation Measure M-AQ-2 would reduce construction emissions impacts on nearby sensitive receptors to a less-than-significant level.

Mitigation Measure M-AQ-2: Construction Emissions Air Quality

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

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

Tier 1 engines. The 25 percent reduction comes from comparing the PM emission standards for off-road engines between 25 hp and 50 hp for Tier 2 (0.45 g/bhp-hr) and Tier 1 (0.60 g/bhp-hr). The 63 percent reduction comes from comparing the PM emission standards for off-road engines above 175 hp for Tier 2 (0.15 g/bhp-hr) and Tier 0 (0.40 g/bhp-hr). In addition to the Tier 2 requirement, ARB Level 3 VDECSs are required and would reduce PM by an additional 85 percent. Therefore, the mitigation measure would result in between an 89 percent (0.0675 g/bhp-hr) and 94 percent (0.0225 g/bhp-hr) reduction in PM emissions, as compared to equipment with Tier 1 (0.60 g/bhp-hr) or Tier 0 engines (0.40 g/bhp-hr).

B. Waivers.

- 1. The Planning Department's Environmental Review Officer or designee (ERO) may waive the alternative source of power requirement of Subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit documentation that the equipment used for onsite power generation meets the requirements of Subsection (A)(1).
- 2. The ERO may waive the equipment requirements of Subsection (A)(1) if: a particular piece of off-road equipment with an ARB Level 3 VDECS is technically not feasible; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or, there is a compelling emergency need to use off-road equipment that is not retrofitted with an ARB Level 3 VDECS. If the ERO grants the waiver, the Contractor must use the next cleanest piece of off-road equipment, according to the table below.

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

Off-Road Equipment Compliance Step-down Schedule

How to use the table: If the ERO determines that the equipment requirements cannot be met, then the project sponsor would need to meet Compliance Alternative 1. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the Contractor must meet Compliance Alternative 2. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the Contractor must meet Compliance Alternative 3.

- ** Alternative fuels are not a VDECS.
- C. Construction Emissions Minimization Plan. Before starting on-site construction activities, the Contractor shall submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and approval. The Plan shall state, in reasonable detail, how the Contractor will meet the requirements of Section A.
 - 1. The Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For VDECS installed, the description may include: technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date and hour meter reading on installation date. For off-road equipment

using alternative fuels, the description shall also specify the type of alternative fuel being used.

- 2. The project sponsor shall ensure that all applicable requirements of the Plan have been incorporated into the contract specifications. The Plan shall include a certification statement that the Contractor agrees to comply fully with the Plan.
- 3. The Contractor shall make the Plan available to the public for review on-site during working hours. The Contractor shall post at the construction site a legible and visible sign summarizing the Plan. The sign shall also state that the public may ask to inspect the Plan for the project at any time during working hours and shall explain how to request to inspect the Plan. The Contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.
- D. Monitoring. After start of Construction Activities, the Contractor shall submit quarterly reports to the ERO documenting compliance with the Plan. After completion of construction activities and prior to receiving a final certificate of occupancy, the project sponsor shall submit to the ERO a final report summarizing construction activities, including the start and end dates and duration of each construction phase, and the specific information required in the Plan.

Impact AQ-3: During project operations, the 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 air district, in its *CEQA Air Quality Guidelines* (May 2017), 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 a 160-room hotel with 2,187 gsf of ground-floor retail that would generate approximately 578 daily vehicle trips. The proposed project would be below the criteria air pollutant screening sizes for sizes for hotel uses (554 rooms) and retail uses (277,000 sf) identified in the air district's *CEQA Air Quality Guidelines*. Thus, quantification of project-generated criteria air pollutant emissions is not required, as the proposed project would not exceed any of the significance thresholds for criteria air pollutants, and would therefore result in a less than significant impact with respect to criteria air pollutants.

Impact AQ-4: During project operations, the project would generate toxic air contaminants, including diesel particulate matter, exposing sensitive receptors to substantial air pollutant concentrations. (Less than Significant with Mitigation)

The project site is located within the Air Pollutant Exposure Zone, as described above. The proposed project does not include sensitive uses, but sensitive land uses are located in

proximity to the project site. The nearest sensitive land uses to the project site are the potential live/work units in the adjacent buildings, Stevenson Lofts (529 Stevenson St), a homeless housing facility (39–42 Jones Street), 121 Golden Gate Avenue Apartments, 111 Jones Street Apartments, and SOMA Residences (1045 Mission).

Sources of Toxic Air Contaminants

Individual projects result in emissions of toxic air contaminants primarily as a result of an increase in vehicle trips. The air district 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 578 vehicle trips would be well below this level and would be distributed among the local roadway network, therefore an assessment of project-generated TACs resulting from vehicle trips is not required and the proposed project would not generate a substantial amount of TAC emissions that could affect nearby sensitive receptors.

The proposed project would also include a backup emergency generator. Emergency generators are regulated by the air district 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 air district. Although emergency generators are intended only to be used in periods of power outages, monthly testing of the generator would be required. The air district limit testing to no more than 50 hours per year. Additionally, as part of the permitting process, the air district would limit the excess cancer risk from any facility to no more than ten per one million population and would require any source that would result in an excess cancer risk greater than one per one million population to install Best Available Control Technology for Toxics (TBACT). However, because the project site is located in an area that already experiences poor air quality, the proposed emergency back-up generator has the potential to expose sensitive receptors to substantial concentrations of diesel emissions, a known TAC, resulting in a significant air quality impact. Implementation of Mitigation Measure AQ-4a, Best Available Control Technology for Diesel Generators, would reduce the magnitude of this impact to a less-than-significant level by reducing emissions by 89 to 94 percent compared to equipment with engines that do not meet any emission standards and without a VDECS. Therefore, although the proposed project would add a new source of TACs within an area that already experiences poor air quality, implementation of M-AQ-4 would reduce this impact to a less-than-significant level.

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

The project sponsor shall ensure that the backup diesel generator meet or exceed one of the following emission standards for particulate matter: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California Air Resources Board (ARB) Level 3 Verified Diesel Emissions Control Strategy (VDECS). A non-verified diesel emission control strategy may be used if the filter has the same particulate matter reduction as the identical ARB verified model and if the Bay Area Air Quality Management District (BAAQMD) approves of its use. The project sponsor shall submit documentation of

compliance with BAAQMD New Source Review permitting process (Regulation 2, Rule 2, and Regulation 2, Rule 5) and the emission standard requirement of this mitigation measure to the Planning Department for review and approval prior to issuance of a permit for a backup diesel generator from any City agency.

Impact AQ-5: Operation of the project would not conflict with or obstruct implementation of the 2017 *Clean Air Plan*. (Less than Significant)

The most recently adopted air quality plan for the air basin is the 2017 *Clean Air Plan*. The 2017 *Clean Air Plan* is a road map that demonstrates how the San Francisco Bay Area will achieve compliance with the state ozone standards as expeditiously as practicable and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. In determining consistency with the 2017 *Clean Air Plan* (CAP), this analysis considers whether the project would: (1) support the primary goals of the CAP, (2) include applicable control measures from the CAP, and (3) avoid disrupting or hindering implementation of control measures identified in the CAP.

The primary goals of the CAP are to: (1) protect air quality and health at the regional and local scale: attain all state and national air quality standards, and eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants, and (2) protect the climate: reduce Bay Area greenhouse gas emissions 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050. 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 2017 *Clean Air Plan* includes 85 control measures aimed at reducing air pollution in the air basin.

The measures most applicable to the proposed project are transportation control measures and energy and climate control measures. The proposed project's impact with respect to GHGs are discussed in Section E.7, Greenhouse Gas Emissions, which demonstrates that the proposed project would comply with the applicable provisions of the City's Greenhouse Gas Reduction Strategy.

The compact development of the proposed project and high availability of viable transportation options ensure that residents could bicycle, walk, and ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the project would avoid substantial growth in automobile trips and vehicle miles traveled. The proposed project's anticipated 578 net new vehicle trips would result in a minor increase in air pollutant emissions. Furthermore, the proposed project would be generally consistent with the *San Francisco General Plan*, as discussed in Section E.1. Transportation control measures that are identified in the 2017 *Clean Air Plan* are implemented by the *San Francisco General Plan* and the Planning Code, for

example, through the City's Transit First Policy, bicycle parking requirements, and transit impact development fees. Compliance with these requirements would ensure the project includes relevant transportation control measures specified in the 2017 *Clean Air Plan*. Therefore, the proposed project would include applicable control measures identified in the CAP to the meet the CAP's primary goals.

Examples of a project that could cause the disruption or delay of *Clean Air Plan* control measures are projects that would preclude the extension of a transit line or bike path, or projects that propose excessive parking beyond parking requirements. The proposed project would add 71,534 gsf of hotel space and 2,187 gsf of retail space 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 not disrupt or hinder implementation of control measures identified in the CAP.

For the reasons described above, the proposed project would not interfere with implementation of the *2017 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 project would not create objectionable odors that would affect a substantial number of people. (Less than Significant)

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities. During construction, diesel exhaust from construction equipment would generate some odors. However, construction-related odors would be temporary and would not persist upon project completion. Observation indicates that the project site is not substantially affected by sources of odors.⁷⁷ Additionally, the proposed project includes hotel and retail uses and would therefore not create a significant sources of new odors. Therefore, odor impacts of the proposed project would be less than significant.

Impact C-AQ-1: The project, in combination with past, present, and reasonably foreseeable future development in the project area, could 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

⁷⁷ Observation based on AEI Consultants site visit for the Phase 1 Environmental Site Assessment on November 22, 2013.

contribute to existing cumulative adverse air quality impacts.⁷⁸ The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project's construction (Impact AQ-1) and operational (Impact AQ-3) emissions would not exceed the project-level thresholds for criteria air pollutants, the proposed project would not be considered to result in a cumulatively considerable contribution to regional air quality impacts.

As discussed above, the project site is located in an Air Pollution Exposure Zone, area that already experiences poor air quality. The project would add 455 new daily vehicle trips as well as an emergency generator within an area already adversely affected by air quality, resulting in a considerable contribution to cumulative health risk impacts on nearby sensitive receptors. This would be a significant cumulative impact. The proposed project would be required to implement Mitigation Measure M-AQ-2, Construction Air Quality, which could reduce construction period emissions by as much as 94 percent and Mitigation Measure M-AQ-4, Best Available Control Technology for Diesel Generators, which requires best available control technology to limit emissions from the project's emergency back-up generator. Implementation of these mitigation measures would reduce the project's contribution to cumulative air quality impacts to a less-than-significant level.

⁷⁸ BAAQMD, CEQA Air Quality Guidelines, May 2017, page 2-1.

Тор	vics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
7.	GREENHOUSE GAS EMISSIONS— Would the project:					
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?					
b)	Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?					

Greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects have contributed and will continue to contribute to global climate change and its associated environmental impacts.

The air district has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines Sections 15064.4 and 15183.5 which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA Guidelines Section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. Accordingly, San Francisco has prepared *Strategies to Address Greenhouse Gas Emissions*⁷⁹ which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's qualified GHG reduction strategy in compliance with the CEQA guidelines. These GHG reduction have resulted in a 23.3 percent reduction in GHG emissions in 2012 compared to 1990 levels,⁸⁰ exceeding the year 2020 reduction goals outlined in the BAAQMD's *Bay Area 2017 Clean Air Plan*, Executive Order (EO) S-3-05, and Assembly Bill (AB) 32 (also known as the Global Warming Solutions Act).⁸¹

⁷⁹ San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, 2010. This document is available online at: <u>http://www.sf-planning.org/index.aspx?page=2627.</u>

⁸⁰ ICF International, *Technical Review of the 2012 Community-wide GHG Inventory for the City and County of San Francisco*, January 21, 2015. Available at http://sfenvironment.org/sites/default/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files/files

⁸¹ Executive Order S-3-05, Assembly Bill 32, and the *Bay Area 2010 Clean Air Plan* set a target of reducing GHG emissions to below 1990 levels by year 2020.

The following analysis of the 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.

Given that the City has met the State and region's 2020 GHG reduction targets and San Francisco's GHG reduction goals are consistent with, or more aggressive than, the long-term goals established under EO S-3-05⁸², EO B-30-15, ^{83,84} and Senate Bill (SB) 32^{85,86} the City's GHG reduction goals are consistent with EO S-3-05, EO B-30-15, AB 32, SB 32 and the *Bay Area 2017 Clean Air Plan*. Therefore, proposed projects that are consistent with the City's GHG reduction strategy would be consistent with the aforementioned GHG reduction goals, would not conflict with these plans or result in significant per capita GHG emissions, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

Impact GHG-1: The project would generate greenhouse gas emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions. (Less than Significant)

Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during construction and operational phases. Direct operational emissions include GHG emissions from new vehicle trips and area sources (natural gas combustion). Indirect emissions include emissions from electricity providers; energy required to pump, treat, and convey water; and emissions associated with waste removal, disposal, and landfill operations.

⁸² Office of the Governor, Executive Order S-3-05, June 1, 2005. Available at

http://www.pcl.org/projects/2008symposium/proceedings/Coatsworth12.pdf, accessed March 16, 2016. Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million metric tons of carbon dioxide equivalents (MTCO2E)); by 2020, reduce emissions to 1990 levels (approximately 427 million MTCO2E); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 457 million MTCO2E); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million MTCO2E). 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.

⁸³ Office of the Governor, *Executive Order B-30-15*, April 29, 2015. Available at <u>https://www.gov.ca.gov/news.php?id=18938</u>, accessed March 3, 2016. Executive Order B-30-15, issued on April 29, 2015, sets forth a target of reducing GHG emissions to 40 percent below 1990 levels by 2030 (estimated at 2.9 million MTCO₂E).

⁸⁴ San Francisco's GHG reduction goals are codified in Section 902 of the Environment Code and include: (i) by 2008, determine City GHG emissions for year 1990; (ii) by 2017, reduce GHG emissions by 25 percent below 1990 levels; (iii) by 2025, reduce GHG emissions by 40 percent below 1990 levels; and by 2050, reduce GHG emissions by 80 percent below 1990 levels.

⁸⁵ Senate Bill 32 amends California Health and Safety Code Division 25.5 (also known as the California Global Warming Solutions Act of 2006) by adding Section 38566, which directs that statewide greenhouse gas emissions to be reduced by 40 percent below 1990 levels by 2030.

⁸⁶ Senate Bill 32 was paired with Assembly Bill 197, which would modify the structure of the State Air Resources Board; institute requirements for the disclosure of greenhouse gas emissions criteria pollutants, and toxic air contaminants; and establish requirements for the review and adoption of rules, regulations, and measures for the reduction of greenhouse gas emissions.

The proposed project would increase the intensity of use of the site by demolishing an existing vacant two-story building and constructing a new 10-story, 90-foot-tall hotel building, approximately 73,721 gsf, with ground-floor retail space and one subterranean level. Therefore, the proposed project would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and commercial operations that result in an increase in energy use, water use, wastewater treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

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

Compliance with the City's Commuter Benefits Program, Emergency Ride Home Program, transportation management programs, Transportation Sustainability Fee, Jobs-Housing Linkage Program, and bicycle parking requirements would reduce the proposed project's transportation-related emissions. These regulations reduce GHG emissions from single-occupancy vehicles by promoting the use of alternative transportation modes with zero or lower GHG emissions on a per capita basis.

The proposed project would be required to comply with the energy efficiency requirements of the City's Green Building Code, Stormwater Management Ordinance, and Water Conservation and Irrigation ordinances, which would promote energy and water efficiency, thereby reducing the proposed project's energy-related GHG emissions.⁸⁷ Additionally, the project would be required to meet the renewable energy criteria of the Green Building Code, further reducing the project's energy-related GHG emissions.

The proposed project's waste-related emissions would be reduced through compliance with the City's Recycling and Compositing Ordinance, Construction and Demolition Debris Recovery Ordinance, and Green Building Code requirements. These regulations reduce the amount of materials sent to a landfill, reducing GHGs emitted by landfill operations. These regulations also promote reuse of materials, conserving their embodied energy⁸⁸ and reducing the energy required to produce new materials.

Compliance with the City's Street Tree Planting requirements would serve to increase carbon sequestration. Other regulations, including those limiting refrigerant emissions and the Wood Burning Fireplace Ordinance would reduce emissions of GHGs and black carbon, respectively. Regulations requiring low-emitting finishes would reduce volatile organic compounds

⁸⁷ Compliance with water conservation measures reduce the energy (and GHG emissions) required to convey, pump and treat water required for the project.

⁸⁸ Embodied energy is the total energy required for the extraction, processing, manufacture and delivery of building materials to the building site.

(VOCs).⁸⁹ Thus, the proposed project was determined to be consistent with San Francisco's GHG reduction strategy.⁹⁰

The project sponsor is required to comply with these regulations, which have proven effective as San Francisco's GHG emissions have measurably decreased when compared to 1990 emissions levels, demonstrating that the City has met and exceeded EO S-3-05, AB 32, and the *Bay Area 2017 Clean Air Plan* GHG reduction goals for the year 2020. Other existing regulations, such as those implemented through AB 32, will continue to reduce a proposed project's contribution to climate change. In addition, San Francisco's local GHG reduction targets are consistent with the long-term GHG reduction goals of EO S-3-05, EO B-30-15, AB 32, SB 32 and the *Bay Area 2017 Clean Air Plan*. Therefore, because the proposed project is consistent with the City's GHG reduction strategy, it is also consistent with the GHG reduction goals of EO S-3-05, EO B-30-15, AB 32, SB 32 and the *Bay Area 2017 Clean Air Plan*. Therefore, because the proposed project is consistent with these plans, and would therefore not exceed San Francisco's applicable GHG threshold of significance. As such, the proposed project would result in a less-than-significant impact with respect to GHG emissions. No mitigation measures are necessary.

⁸⁹ While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

⁹⁰ San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for 1055 Market Street*. January 15, 2016. This document is on file and available for public review as part of Case File No. 2014.0408E.

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
8.	WIND AND SHADOW— Would the project:					
a)	Alter wind in a manner that substantially affects public areas?			\boxtimes		
b)	Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?					

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

Average wind speeds in San Francisco are the highest in the summer and lowest in winter. However, the strongest peak winds occur in winter. Throughout the year, the highest wind speeds occur in mid-afternoon and the lowest in the early morning. Winds from the west-northwest, west, northwest, and west-southwest are the most frequent and strongest during all seasons (referred to as prevailing winds).

Tall buildings and exposed structures can strongly affect the wind environment for pedestrians. A building that stands alone or is much taller than the surrounding buildings can 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, turbulent, and incompatible with the intended uses of nearby ground-level spaces. A building with a height that is similar to the heights of surrounding buildings typically would cause little or no additional ground-level wind acceleration and turbulence. Wind impacts are generally caused by large building masses extending substantially above their surroundings, and by buildings oriented such that a large wall catches a prevailing wind, particularly if such a wall includes little or no articulation. In general, new buildings less than approximately 80 feet in height are unlikely to result in substantial adverse effects on ground-level-winds such that pedestrians would be uncomfortable. Such winds may exist under existing conditions, but shorter buildings typically do not cause substantial changes in ground-level winds.

Planning Code Section 148, Reduction of Ground-level Wind Currents in C-3 Districts, outlines wind reduction criteria for projects in C-3 Districts. The project site is in the C-3-G District and is subject to these criteria. The *Planning Code* sets criteria for both comfort and hazards and requires buildings to be shaped so as not to cause ground-level wind currents to exceed these criteria. However, for the purposes of evaluating impacts under CEQA, the analysis uses the hazard criterion to determine whether the project would alter wind in a manner that substantially affects public areas.

The *Planning Code* comfort criteria of 11 miles per hour (mph) for pedestrian areas and 7 mph for public seating areas are based on wind speeds measured and averaged over a period of one minute. In contrast, the *Planning Code* wind hazard criterion of 26 mph is defined by a wind speed that is measured and averaged over a period of one hour. When stated on the same time basis as the comfort criterion wind speed, the hazard criterion wind speed (26 mph averaged over one hour) is equivalent to a one-minute average of 36 mph; wind gusts of that speed can blow people over and, therefore, are hazardous. As stated previously, the analysis uses the hazard criterion to determine significant effects under CEQA. The project's effects related to the comfort criterion are presented for informational purposes.

A pedestrian wind study was prepared for the project.⁹¹ Wind tunnel testing was conducted at 37 wind speed sensor locations under existing conditions within a 500-foot radius of the project site, at a pedestrian height of approximately 5 to 7 feet. The results of the wind tunnel testing indicate that two of the 37 sensor locations (the southeastern corner of Market Street and Seventh Street and the southeastern corner of Market Street and Sixth Street) exceed the hazard criterion under existing conditions.

Wind tunnel testing conducted for existing plus project conditions evaluated a scale model of the project and replicas of surrounding buildings. Testing was conducted at the same 37 wind speed sensor locations as existing conditions testing. The results indicate that the project would not cause any new street-level locations to exceed the hazard criterion, nor would it increase existing hazard criterion exceedances at the two sensor locations that exceed the hazard criteria under existing conditions. Under existing plus project conditions, winds would no longer exceed the hazard criterion at the southeastern corner of Market Street and Seventh Street; and at the southwestern corner of Market Street and Sixth Street, wind speeds, while reduced, would continue to exceed the hazard criterion, but the number of hours the criterion is exceeded per year would decrease. The project would, therefore, not generate pedestrian-level wind speeds that would exceed the wind hazard criterion in Planning Code Section 148. The project would therefore not alter wind in a manner that would substantially affect public areas and would have less-than-significant impacts on wind conditions.

Comfort Criterion Wind Impacts (For Information Only)

The project's effect on comfort criterion is provided for informational purposes. The wind tunnel testing indicates that 25 of the 37 sensor locations exceed the Planning Code's 11 mph pedestrian comfort criterion under existing conditions. Wind speeds of 10 percent exceedance (i.e., the wind speed exceeded 10 percent of time) are 13 mph on average across the 37 locations. The nearest comfort criterion exceedances to the project site are located north of the project on the south side of Market Street. Most sensor locations along Market Street exceed the comfort criterion, with the highest wind speeds modeled along the south side of Market Street.

⁹¹ CPP. 2016. Pedestrian-Level Winds Report: Wind Tunnel Tests for 1055 Market Street San Francisco, CA. June 1. This document is on file and available for public review at the San Francisco Planning Department as part of Case File 2014.0408E.

The results of the wind tunnel testing indicate that under existing plus project conditions, 27 of the 37 street-level sensor locations would exceed the Planning Code's 11 mph pedestrian comfort criterion, an increase of two sensor locations. Wind speeds of 10 percent exceedance would be on average 13 mph across the 37 sensor locations, equal to existing conditions. The average ground-level wind speed would increase 0.1 mph.

Additional wind comfort criterion exceedances compared to existing conditions would occur along the sidewalks on the project block fronting Market Street and Stevenson Street. At the sensor location across Market Street from the proposed project, wind speeds would not increase with the project, but the frequency of exceedance of 11 mph would increase from 9 to 10 percent of the time. The greatest wind speed increase, from 10 mph to 12 mph, would occur on the northern side of Stevenson Street south of the project. The percent of time wind speed exceeds the criterion would also increase from 8 to 12 percent at this location.

As stated above, the project would not alter winds that would exceed the hazard criteria in new locations; therefore, the project would have less-than-significant impacts related to wind.

Impact WS-2: The project would not create new shadows in a manner that would substantially affect outdoor recreational 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 under the jurisdiction of the Recreation and Park Commission from shadowing by new and altered structures during the period between one hour after sunrise and one hour before sunset, year-round. Section 295 restricts new shadow upon open spaces under the jurisdiction of the Recreation and Park Commission by any structure exceeding 40 feet in height unless the Planning Commission finds the shadow to be an insignificant effect.

Because the proposed building would be greater than 40 feet in height, a preliminary shadow fan analysis was conducted by the Planning Department.⁹² The shadow fan analysis shows that, at its greatest extent, the project's shadow would extend east to Jessie Street and Sixth Street, south to Mission Street, west to the block between Leavenworth Street and Charles J Brenham Place, and north to Golden Gate Avenue. According to the shadow fan, the project shadow would not reach any parks that are protected by Section 295, but could reach open space protected by Section 147. It is noted that the Planning Department's preliminary shadow fan does not consider existing buildings or their shadows; rather, it illustrates the maximum extent of potential shadow from a project.

⁹² San Francisco Planning Department. 2014. Shadow Fan – 1055 Market Street. May 19, 2014. This document is on file and available for public review as part of Case File No. 2014.0408E.

Following completion of the preliminary shadow fan analysis prepared by the Planning Department, a detailed shadow study was prepared for the project.⁹³ The nearest public open space to the project site that would be subject to Section 147 is United Nations Plaza, which is located 600 feet west of the project site. The proposed hotel building would be approximately 90 feet tall (94 to 106.5 feet, including parapets, rooftop access, and mechanical equipment, which are excluded from building height calculations for planning purposes). Figures 9 and 10 depict the project shadows in the morning and afternoon for each equinox and solstice for the project. The project's shadow would not extend to the nearest public open spaces, due to intervening buildings that were not considered in the initial shadow fan analysis prepared by the Planning Department. No privately owned, publicly accessible open spaces exist within reach of the project's shadow.⁹⁴

The project would cast a shadow on nearby sidewalks, including those along Market Street and Stevenson Street, at certain times of the day throughout the year. Many sidewalks in this part of San Francisco are already shadowed for much of the day by dense development. Additional shadow created by the project would be temporary in nature and would not substantially affect the use of the sidewalks.

The project would not create new shadow that would substantially affect outdoor recreation facilities or other public areas, and the impacts would be less than significant.

The shadow analysis also found that the project would shade portions of private property within the project vicinity at certain times. Although occupants of nearby private property may regard the increase in shadow as undesirable, the increase in shading of private properties as a result of the project is not considered a significant impact under CEQA.

Impact C-WS-1: The project, in combination with other past, present, or reasonably foreseeable future projects in the vicinity of the project site, would not result in considerable contribution to a significant cumulative impact related to wind. (Less than Significant)

Wind tunnel testing was conducted at 37 wind speed locations under cumulative conditions (which includes the proposed project), taking into account anticipated and proposed buildings in the project vicinity. The results of the wind tunnel testing indicate that four of the 37 sensor locations would exceed the hazard criterion under cumulative conditions.⁹⁵

Table 11 below summarizes the sensor locations at which hazard exceedances were indicated in the wind study. According to the study, one sensor location at Market Street and Seventh Street

⁹³ Stanton Architecture. 2016. Environmental Evaluation Application. Shadow Analysis. May 26, 2016. This document is on file and available for public review as part of Case File No. 2014.0408E.

⁹⁴ Stanton Architecture. 2016. Shadow Study. May 26. This document is on file and available for public review as part of Case File No. 2014.0408E.

⁹⁵ The hazard criterion of the Planning Code requires that buildings not cause equivalent wind speeds to reach or exceed the hazard level of 26 mph, as averaged from a single full hour of the year.

exceeded the hazard criterion under existing conditions and under cumulative conditions, but not under existing plus project conditions, which indicates that the addition of the proposed project would reduce rather than increase wind effects at this sensor location.

The other three sensor locations that exceed the hazard criterion under cumulative conditions are located on the north side of Market Street near the Jones Street intersection. Two sensor locations are on the north side of Market Street opposite the proposed project. These sensor locations exceed the hazard criterion due to winds from the southeast in the existing and cumulative scenarios, but not in the existing-plus-project scenario. This implies that the proposed project is somewhat sheltering the sensor locations from winds from the southeast, and that the hazard exceedances in the cumulative scenario are the result of downwash from taller buildings proposed for the north side of Market Street, not the proposed project. The other sensor location that exceeds the hazard criterion under cumulative conditions is located on Jones Street north of Market Street. This sensor location is most sensitive to winds from the west-northwest direction. This exceedance is likely caused by downwash from future tall structures along Jones Street, and not the proposed project.

Sensor & Location	Existing Conditions	Existing + Project Conditions	Cumulative Conditions
1 (Market & 6 th streets, northeast of project site)	Hazard	Hazard	No Hazard
11 (Market & 7 th streets, southwest of project site)	Hazard	No Hazard	Hazard
18 (Jones Street, north of project site)	No Hazard	No Hazard	Hazard
20 (McAllister, Jones & Market streets, north of project site)	No Hazard	No Hazard	Hazard
21 (Market Street, north of project site)	No Hazard	No Hazard	Hazard

 Table 11: Sensor Locations with Hazard Exceedances⁹⁶

The combination of past, present, and reasonably foreseeable future projects would result in a cumulatively significant wind impact. The project's contribution, however, would not contribute considerably to these hazards. Exceedances of the hazard criterion under cumulative conditions are due to the addition of several tall, future structures to the north of the project site rather than the proposed structure at 1055 Market Street. The project would have a minimal impact on the cumulative wind impacts and therefore would not have a significant cumulative wind impact.

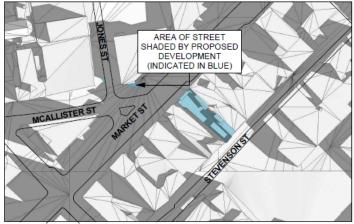
⁹⁶ CPP, Pedestrian-Level Winds Report: Wind Tunnel Tests for 1055 Market Street San Francisco, CA, 2016.

Results of the wind tunnel testing indicate that five sensor locations at pedestrian height would exceed the *Planning Code's* 11 mph pedestrian comfort criterion under cumulative conditions and winds at three sensor locations would decrease to meet the criterion, a net increase of two sensor locations exceeding the criterion compared to existing conditions. Wind speeds at or above 10 percent exceedance (i.e., the wind speed exceeded 10 percent or more of time) would be 14 mph on average across the 37 sensor locations at pedestrian height, an increase of 1 mph compared to existing conditions. Additional wind comfort criterion exceedances compared to existing conditions would occur along the north and south sides of Market Street and along the east side of Jones Street. The highest wind speeds (22 mph) would be anticipated to occur at the southeastern corner of Market Street and Seventh Street. However, the project's contribution would be minimal to the impact. As previously stated, the project's effect on comfort criterion are stated for informational purposes only.

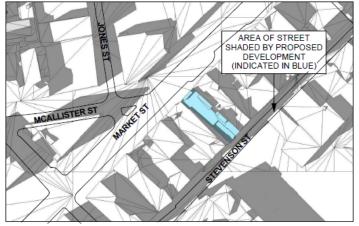
Impact C-WS-2: The project, in combination with other past, present, or reasonably foreseeable future projects in the vicinity of the project site, would result in less than significant cumulative impacts related to shadow. (No Impact)

As described above, the proposed project would not cast any net new shadows on any park protected by *Planning Code* Section 295, nor would it add new shadow to any publically-accessible open space. Accordingly, the proposed project could not contribute considerably to any cumulative shadow effects that would result from the combination of the proposed project and other projects, and the cumulative effect with respect to shadow would be less than significant.

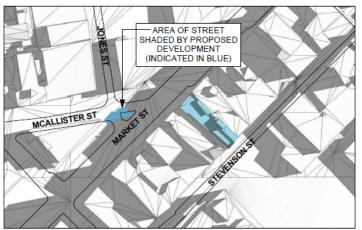
Figure 9: Results of Shadow Analysis



MAR 21ST 08:11AM - PROPOSED BUILDING CONFIGURATION

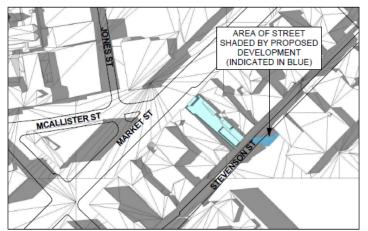


MAR 21ST 03:27PM - PROPOSED BUILDING CONFIGURATION



JUN 21ST 07:11AM - PROPOSED BUILDING CONFIGURATION

MAR 21ST - SPRING EQUINOX



JUN 21ST 03:27PM - PROPOSED BUILDING CONFIGURATION

JUNE 21ST - SUMMER SOLSTICE

Figure 10: Results of Shadow Analysis



SEP 21ST 07:58AM - PROPOSED BUILDING CONFIGURATION



SEP 21ST 03:50PM - PROPOSED BUILDING CONFIGURATION



DEC 21ST 10:40AM - PROPOSED BUILDING CONFIGURATION

AREA OF STREET SHADED BY PROPOSED DEVELOPMENT (INDICATED IN BLUE)

DEC 21ST 03:28PM - PROPOSED BUILDING CONFIGURATION

DECEMBER 21ST - WINTER SOLSTICE

SEPTEMBER 21ST - FALL EQUINOX

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
9.	RECREATION— Would the project:					
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?					
b)	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?					
c)	Physically degrade existing recreational resources?					

Impact RE-1: The project would not physically degrade existing recreation resources nor would it increase the use of existing neighborhood parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. (Less than Significant)

Several recreation facilities and public open spaces are located near the project site, including:

- United Nations Plaza, an approximately 2.6-acre pedestrian mall extending from Market Street to Hyde Street in the City's Civic Center area, located approximately 600 feet west of the 1055 Market Street entrance.
- Father Alfred E. Boeddeker Park (at the intersection of Eddy and Jones Streets), an approximately 0.97-acre park containing basketball half-court, swings, slide and play structures as well as a community clubhouse, located approximately 1,300 feet north of the project site.
- Civic Center Plaza (at the intersection of McAllister and Larkin Streets), an approximately 5.9-acre public open space containing lawn areas and two tot lots, located adjacent to the City Hall, located approximately 1,700 feet west of the project site.

The San Francisco General Plan Recreation and Open Space Element (ROSE) defines a "high needs area" of the City as an area that is projected to absorb future population growth and that exhibits a combination of high population densities; high percentages of children and youth, seniors, and low-income households relative to the City as a whole; and low access to open space.⁹⁷ As shown on Maps 4a through 4c of the ROSE, the project site is located within the ¹/₂- mile service area of "Active Use/Sports Fields" and "Passive Use/Tranquil Spaces" and the ¹/₄-

⁹⁷ City and County of San Francisco. San Francisco General Plan. Recreation and Open Space Element (ROSE). Available: http://openspace.sfplanning.org Accessed: August 8, 2016.

mile service area of "Playgrounds." As shown on Maps 5c and 5d of the ROSE, the project site is not within an area of the City that exhibits higher percentages of children and youth and seniors relative to the City as a whole, but is within an area with higher population densities and a higher percentage of low-income households relative to the City as a whole (Map 5a and 5b) and is an area designated to absorb future population growth (Map 6 of the ROSE). Based on these variables, a composite map was generated to identify areas of the City that receive priority when opportunities to acquire land for development of new parks arise and when funding decisions for the renovation of existing parks are made (Map 7 of the ROSE). As shown on Map 7, the project site is not located within a "high needs area," but is immediately adjacent to such areas.⁹⁸

The proposed project would involve demolition of an existing building and construction of a new hotel with 160 rooms and ground-floor retail space. The project would add 150 employees and up to 636 hotel guests to the local population, which would increase the demand for parks and recreational services in the project vicinity. The project would provide passive recreational spaces onsite with its 2,305-gsf roof terrace for hotel guests and 2,266 gsf of publicly-accessible ground-floor open space. Hotel guests and employees would be within walking distance of existing open spaces previously described. Based on the number of public parks and open spaces, playgrounds, and other recreational resources in the project vicinity, the availability of open space on and in the immediate vicinity of the project site, and the minor increase in population due to the project, project-generated demand would reasonably be accommodated by existing local recreational resources.

Hotel guests and employees may use existing park and recreational services in the project vicinity, especially United Nations Plaza, due to its proximity to the proposed project. U.N. Plaza, a 2.6-acre brick-paved pedestrian space approximately 600 feet west of the project site and adjacent to Market Street, hosts a farmers' market on Wednesdays and Sundays, food trucks on Tuesdays and Thursdays, children's events, and music events. Any increased use of United Nations Plaza and surrounding open space due to the proposed project would be modest in light of the current use levels and size of the space. It is unlikely that physical deterioration of existing facilities would occur due to the modest amount of increased use by hotel guests or employees from the proposed project. The proposed project would not substantially increase demand for, or use of, citywide/regional facilities such as Golden Gate Park or other recreational facilities, such as the Tenderloin Recreation Center because the size of the projected population increase would be modest compared to existing populations within the City and the region. The project would not result in the physical alteration or degradation of any recreational resource within the vicinity of the project site or in the City as a whole.

The project would not be expected to create a substantial contribution to the demand for existing neighborhood parks or other recreational facilities in the area or physically degrade existing recreational facilities beyond existing conditions due to its provision of private and

⁹⁸ ROSE, Maps 4 through 9. Available: http://openspace.sfplanning.org. Accessed: August 8, 2016.

public on-site open space and its relatively small contribution to open space demand. This impact would be less than significant. No mitigation is required.

Impact RE-2: The project would not require the construction of recreational facilities that may have an adverse physical effect on the environment. (Less than Significant)

The project would provide approximately 2,305 gsf of open space on its rooftop terrace. This space would be available to hotel guests for passive recreational use. Ground-floor privately owned public open space (POPOS) would be provided per Section 138 of the *Planning Code*, which requires that one square foot of publicly-accessible open space be provided for each 50 square feet of retail space in the C-3-G District. As these recreational facilities would be located within the proposed structure, no additional adverse physical effects to the environment would occur beyond those analyzed for the proposed project. The impact would be less than significant.

Impact C-RE-1: The project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in less-than- significant cumulative impacts related to recreation. (Less than Significant)

Recreational facility use within 0.25 mile of the proposed project would increase modestly with the development of the project, especially in combination with other reasonably foreseeable residential and mixed-use development projects in the vicinity. A geographic distance of 0.25 mile is appropriate because residents, hotel guests, and workers are expected to use recreational facilities in proximity to their locations. The proposed project is projected to generate 150 employees and up to 636 hotel guests. Nearby cumulative development projects would add up to 2,113 dwelling units and approximately 5,000 new residents to the project area.⁹⁹ Similar to the project, cumulative projects in the area would be subject to *Planning Code* open space requirements regarding the provision of public and/or private open space. The provision of the *Planning Code*-required open space would partially meet the demand for recreational resources and offset the project area.

Furthermore, the ROSE provides a neighborhood specific framework for implementation of the *General Plan* goals for improvement and acquisition of recreation and open space resources; implementation of the policies included in the ROSE would address long-term public open space needs associated with population increase in the project vicinity. Additionally, some cumulative projects, such as 925-967 Mission Street (5M Project), will substantially increase public open space in the project vicinity and improve access to existing open spaces in the project vicinity. For these reasons, the proposed project, in combination with other past, present,

⁹⁹ Assumes 2.42 persons per household for 180 Jones Street/181 Turk Street (37 dwelling units), 168 Eddy Street (103 dwelling units), 950–974 Market Street (250 dwelling units), 1028 Market Street (186 dwelling units), 1066 Market Street (304 units), 19–25 Mason Street (155 dwelling units), 1075 Market Street (90 dwelling units), 1125 Market Street (150 dwelling units), and 925-967 Mission Street (748 dwelling units). Assumes 1.00 person per household for 121 Golden Gate Avenue (90 senior dwelling units).

and reasonably foreseeable future projects, would not result in a significant cumulative recreation impact.

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
10.	UTILITIES AND SERVICE SYSTEMS- Would the project:	-				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?					
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?					
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?					
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?					
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?					
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?					
g)	Comply with federal, state, and local statutes and regulations related to solid waste?					

Impact UT-1: Implementation of the project would not exceed wastewater treatment requirements, exceed the capacity of the wastewater treatment provider serving the project site, or result in the construction of new or expansion of existing wastewater treatment or stormwater drainage facilities. (Less than Significant)

Wastewater and stormwater associated with the project would flow to the City's combined stormwater and sewer system and would be treated to the standards of the City's National Pollutant Discharge Elimination System (NPDES) permit for the Southeast Water Pollution Control Plant. Treated water would be discharged into the San Francisco Bay. The San Francisco Bay Area Regional Water Quality Control Board (RWQCB) sets and regulates the NPDES requirements. Drinking water is supplied by the San Francisco Public Utilities Commission (SFPUC) in the project area.

Stormwater

The project site is completely covered with impervious surfaces. With implementation of the project, the amount of impervious surface would not change, and therefore, the project would not result in an increase in stormwater runoff. Compliance with the City's Stormwater Management Ordinance (Ordinance No. 83-10) would require the project to reduce or eliminate the existing volume and rate of stormwater runoff discharged from the project site. To achieve this standard, the project sponsor would be required to implement and install appropriate stormwater management systems for both the construction and operation that would manage stormwater on-site and limit demand on both the collection system and wastewater facilities resulting from stormwater discharges. A Stormwater Control Plan would be designed for review and approval by the SFPUC prior to construction because the project would result in ground disturbance of an area greater than 5,000 sf. The Stormwater Control Plan would also include a maintenance agreement that must be signed by the project sponsor to ensure proper care of the necessary stormwater controls. The project would not substantially increase the demand for stormwater treatment and would not result in the construction of new or expansion of existing stormwater drainage facilities.

Wastewater

As described in Impact PH-1 in Section E.2, Population and Housing, the project would add 150 employees to the project site as well as up to 636 hotel guests, which would increase the amount of wastewater generated at the project site over the existing conditions. The *2015 Urban Water Management Plan* (UWMP) for the City and County of San Francisco, which includes all known or expected development projects and projected development in San Francisco through 2040, accounts for this growth. The project sponsor would be required to pay a capacity charge to pay for the cost of the facilities required to serve the project.

In compliance with Title 24 of the California Code of Regulations and the City's Green Building Ordinance, the project would also include water-efficient fixtures to reduce wastewater flows and the amount of potable water used for building functions as well as any applicable water conservation ordinances.

As described above, implementation of the proposed project would not increase the amount of impervious surface on the project site, thus it would not result in a substantial increase of stormwater runoff or warrant expansion of stormwater treatment or drainage facilities. Operation of the proposed project may incrementally increase demand for wastewater treatment, but the potential increase in demand would not require expansion of existing wastewater treatment facilities. Therefore, the project would have a less-than-significant impact on wastewater and stormwater facilities.

Impact UT-2: The SFPUC has sufficient water supply and entitlements to serve the project, and implementation of the project would not require expansion or construction of new water treatment facilities. (Less than Significant)

The SFPUC's UWMP uses 2040 growth projections that were prepared by the Planning Department and ABAG to estimate future water demand. The project would add commercial

uses to the project site, which would increase the demand for water on the site. This increase is within the demand projections included in the UWMP. Although the project would incrementally increase the demand for water in San Francisco, the estimated increase in demand could be accommodated under the anticipated water use and supply projections for San Francisco.^{100 101}

In compliance with Title 24 of the California Code of Regulations and the City's Green Building Ordinance, the project would include water-efficient fixtures to reduce the amount of potable water used for building functions. Furthermore, because the project would include a rooftop terrace with 2,305 gsf of landscaped area, the project would be required to comply with the San Francisco Water Efficient Irrigation Ordinance. Because the water demand could be accommodated by the existing and planned water supply anticipated under the UWMP and would include water-efficient elements, the project would not result in a substantial increase in water use and would be served by existing water supply entitlements and resources. Therefore, the project would not require the expansion of water facilities, and this impact would be less than significant.

Impact UT-3: The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. (Less than Significant)

In September 2015, the City approved an Agreement with Recology, Inc., for the transport and disposal of the City's municipal solid waste at the Recology Hay Road Landfill in Solano County for nine years or until 3.4 million tons have been disposed (whichever occurs first). The City would have an option to renew the agreement for a period of six years or until an additional 1.6 million tons have been disposed (whichever occurs first).¹⁰² At present, the landfill receives an average of approximately 1,850 tons per day from all sources, with approximately 1,200 tons per day from San Francisco. At this rate landfill closure would occur in 2041.¹⁰³ The City's contract with the Recology Hay Road Landfill is set to terminate in 2031 or when five million tons have been disposed, whichever occurs first. At that point, the City will either further extend the Recology Hay Road Landfill contract or find and entitle another landfill site. San Francisco had a goal of 75 percent solid waste diversion by 2010 and has a goal of 100

¹⁰⁰ San Francisco Public Utilities Commission. 2016. *Urban Water Management Plan*. June. Includes countywide demand projections through 2040 and compares water supply and demand. Available:

http://www.sfwater.org/modules/showdocument.aspx?documentid=9300. Accessed: December 3, 2016.

¹⁰¹ San Francisco Public Utilities Commission. 2013. Water Availability Study for the City and County of San Francisco. Available: http://www.sfsewers.org/modules/showdocument.aspx?documentid=3589. Accessed: August 9, 2016.

¹⁰² San Francisco Planning Department, Agreement for Disposal of San Francisco Municipal Solid Waste at Recology Hay Road Landfill in Solano County Final Negative Declaration, Planning Department Case No. 2014.0653, May 21, 2015. Available online at: http://sfmea.sfplanning.org/2014.0653E_Revised_FND.pdf, accessed December 2, 2016.

¹⁰³ San Francisco Planning Department, Agreement for Disposal of San Francisco Municipal Solid Waste at Recology Hay Road Landfill in Solano County Final Negative Declaration, Planning Department Case No. 2014.0653, May 21, 2015. Available online at: http://sfmea.sfplanning.org/2014.0653E_Revised_FND.pdf, accessed December 2, 2016.

percent solid waste diversion by 2020.¹⁰⁴ San Francisco diverted 80 percent of its solid waste in 2010.¹⁰⁵

Solid waste would be generated both during construction and during the operation of the project. Construction of the project would comply with San Francisco Ordinance No. 27-06, which requires a minimum of 65 percent of all construction and demolition debris to be recycled and diverted from landfills. Solid waste from the project site would be collected and hauled to a transfer station near Candlestick Point and recycled, as feasible. Remaining waste would be transported to the Recology Hay Road Landfill in Solano County. The Hay Road landfill, as discussed above, has adequate capacity to serve this demand.

During operation of the project, the project sponsor would be subject to the City's Mandatory Recycling and Composting Ordinance, which requires all San Francisco residents and commercial landlords to separate their refuse into recyclables, compostables, and trash, thereby minimizing solid waste disposal and maximizing recycling.

Although the project would incrementally increase total waste generation within the City, the increasing rate of diversion through recycling and other methods would result in a decreasing share of total waste that would require deposal at the landfill. The solid waste generated by project construction and operation would not result in the landfill exceeding its permitted capacity, and the project would result in a less-than-significant solid waste generation impact.

Impact UT-4: The construction and operation of the project would comply with all applicable statutes and regulations related to solid waste. (Less than Significant)

The California Integrated Waste Management Act of 1989 (Assembly Bill 939) requires municipalities to adopt an Integrated Waste Management Plan to establish objectives, policies, and programs related to waste disposal, management, source reduction, and recycling. San Francisco Ordinance No. 27-06 requires a minimum of 65 percent of all construction and demolition debris to be recycled and diverted from landfills. San Francisco's solid waste diversion goals include 75 percent solid waste diversion by 2010 and 100 percent solid waste diversion by 2020. San Francisco diverted 80 percent of its solid waste in 2010, exceeding the 2010 goal.¹⁰⁶ San Francisco Ordinance No. 100-09 requires everyone in San Francisco to separate their solid waste into recyclables, compostables, and trash. The project would be subject to and would comply with San Francisco Ordinance No. 27-06, San Francisco Ordinance No. 100-09, and all other applicable statutes and regulations related to solid waste. Therefore, the project would have a less-than-significant impact related to applicable solid waste statutes and regulations.

¹⁰⁴ San Francisco Department of the Environment. n.d.

¹⁰⁵ San Francisco Department of the Environment. 2012. San Francisco Sets North American Record for Recycling & Composting with 80 Percent Diversion Rate. Available: http://sfenvironment.org/news/update/san-francisco-sets-north-american-record-for-recycling-composting-with-80-percent-diversion-rate. Accessed: August 9, 2016.

¹⁰⁶ San Francisco Department of the Environment. 2012.

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

The project would not substantially affect utility provision or service, including water supply, wastewater facilities, and solid waste services. The SFPUC, the local water and wastewater service provider, has incorporated the demand associated with cumulative projects in its future water supply and wastewater service projections identified in the UWMP.¹⁰⁷ The City and County of San Francisco currently exceed statewide goals for reducing solid waste and are expected to reduce solid waste volumes further in the future through several ordinances. For these reasons, the project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative utilities and service systems impact.

¹⁰⁷ San Francisco Public Utilities Commission. 2016. *Urban Water Management Plan*. June. Available: http://www.sfwater.org/modules/showdocument.aspx?documentid=9300. Accessed: December 3, 2016.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
11. PUBLIC SERVICES— Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, police protection, schools, parks, or other services?					

A description of impacts on parks is provided in Impact RE-1, RE-2, and RE-3.

Impact PS-1: The project would increase demand for police protection and fire protection but not to an extent that would require new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. (Less than Significant)

The project site currently receives fire protection services from the San Francisco Fire Department. The two closest fire stations are Stations 1 and 36. Station 1 is located at 935 Folsom Street, approximately 0.5-mile northeast of the project site.¹⁰⁸ Station 36 is located at 109 Oak Street, approximately 0.7-mile southwest of the project site.¹⁰⁹ The project site currently receives police protection services from the Tenderloin police station, located at 301 Eddy Street, approximately 0.2-mile north of the project site.¹¹⁰

Construction of the project would be subject to and would comply with the regulations of the California Fire Code, which establishes requirements pertaining to fire protection systems, including the provision of state-mandated fire alarms, fire extinguishers, appropriate building access and egress, and emergency response notification systems.

The proposed project would add approximately 150 employees and up to 636 hotel guests to the local population. This population increase could result in an incremental increase in demand for fire and police protection services, but the increased demand would not be substantial in light

¹⁰⁸ City and County of San Francisco Fire Department. n.d. SFFD Fire Station Locations. Available: http://www.sf-fire.org/Modules/ShowDocument.aspx?documentid=1975. Accessed: August 9, 2016.

¹⁰⁹ City and County of San Francisco Fire Department. n.d. Fire Station Locations. Available: http://www.sf-fire.org/index.aspx?page=176. Accessed: August 9, 2016.

¹¹⁰ City and County of San Francisco Police Department. 2015. City and County of San Francisco Tenderloin District. Available: http://sanfranciscopolice.org/sites/default/files/FileCenter/Documents/27546-Tenderloin.pdf. Accessed: August 9, 2016.

of the existing demand for police and fire protection in the City. Furthermore, the incremental increase in demand would not exceed demand for police and fire services expected and provided for in the project area. Approval of the proposed project would not necessitate the construction of new fire or police stations or require the alteration or expansion of existing stations to maintain service ratios.

Given that the proposed project would not result in a fire or police service demand beyond the projected growth for the area or the City, the proposed project would not result in the need for new fire protection facilities, and would have no adverse impact on the physical environment related to the construction of new or physically altered fire or police protection facilities.

Impact PS-2: The project could indirectly increase the population of school-aged children, but these new students would be accommodated within existing school facilities and would not require new or physically altered school facilities. (Less than Significant)

School services in the City are provided by the San Francisco Unified School District (SFUSD). A decade-long decline in San Francisco Unified School District (SFUSD) enrollment ended in the 2008–2009 school year, and total enrollment in the SFUSD has increased from approximately 55,000 in 2007–2008 to 58,865 in the 2015–2016 school year.¹¹¹

The proposed project does not include residential uses. The proposed 160 hotel rooms and 2,187 gsf of retail space would create a demand for approximately 150 new employees. New workers at the project would likely relocate from other jobs already in San Francisco or elsewhere in the Bay Area. Existing schools in the City could accommodate new students from the proposed project's worker population even if all workers were new to San Francisco. In projecting enrollment through 2040, a 2015 SFUSD enrollment study found that the overall weighted student generation rate would be at most 0.2 students per housing unit for the City of San Francisco as a whole.¹¹² Assuming that all employees would be new to San Francisco and living in a mix of market-rate and subsidized housing throughout the city, 29 new students could be added to the SFUSD. An increase of this size would be unlikely, given that not all employees would likely live in San Francisco, but nevertheless this level would not exceed the student capacities that are projected and accommodated by the SFUSD.

Because the proposed project would not be anticipated to necessitate new or physically altered school facilities, impacts on schools would be less than significant.

http://dq.cde.ca.gov/dataquest/DQ/EnrTimeRpt.aspx?Level=District&cYear=2007-08&cname=San%20Francisco%20Unified&cCode=3868478

¹¹¹ California Department of Education, Data Reporting Office, San Francisco Unified School District, K-12 Public School Enrollment, Time Series, 1996-2016. Available at:

¹¹² Lapkoff & Gobalet Demographic Research, Inc. 2015. Demographic Analyses and Enrollment Forecasts for the San Francisco Unified School District. November 23. Available at: http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf

Impact PS-3: The project would not increase demand for government services, and there would be a less than significant impact on government facilities. (Less than Significant)

Similar to Impacts PS-1 and PS-2, employees and guests of the project would most likely use existing government services, including libraries, but this increase in demand would be small compared with demand from the existing population and overall service capacity. The proposed project would not be of such a magnitude that the demand could not be reasonably accommodated by existing facilities. Therefore, the project would not affect government services to the extent that new or physically altered government facilities would be required. The project would therefore have a less-than-significant impact on government services.

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

The cumulative context for public services impacts consists of public service providers in the vicinity of the project site. Public services provided in the project vicinity include the San Francisco Police Department, San Francisco Fire Department, SFUSD, San Francisco Recreation and Park, and the San Francisco Public Library. Similar to the project, projects within the vicinity would utilize services provided by these departments.

Several reasonably foreseeable projects are located in the immediate project vicinity, including, but not limited to, the nearby planned developments located at 950–974 Market Street, 1028 Market Street, 1125 Market Street, 1066 Market Street, and 1075 Market Street. Cumulative development in the project vicinity would incrementally increase demand for public services, However, these combined increases in employment and visitors would not be beyond levels already anticipated and planned for in the vicinity. For these reasons, the proposed project would not result in a considerable contribution to cumulative public service impacts, and this impact would be less than significant.

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
12	BIOLOGICAL RESOURCES— Would the project:					
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special- status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?					
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?					
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?					
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?					
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?					
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?					

The project area does not include riparian habitat or other sensitive natural communities, as defined by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. The project area does not contain any wetlands, as defined by Section 404 of the Clean Water Act. The project site is not located within the jurisdiction of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Therefore, Topics 12b, 12c and 12f will not be discussed further in this section.

Impact BI-1: The project would not have a substantial adverse effect, either directly or through habitat modifications, on any special-status species. (No Impact)

The project site is located in a dense urban environment with high levels of human activity. Only common bird species are likely to nest in the area. The project site is currently occupied by a vacant commercial building and is completely covered by buildings or paved with impervious surfaces. Therefore, the project site does not support, or provide habitat for, any special-status plant or animal species.

The three existing street trees along Market Street would be retained and protected during construction of the proposed project, and two new street trees would be planted along Stevenson Street, where no trees currently exist. ¹¹³ No special-status species are known to occur at the project site. The project would therefore have no impacts on special-status species.

Impact BI-2: The project would not interfere with the movement of native resident or wildlife species or with established native resident or migratory wildlife corridors. (Less than Significant)

Structures in an urban setting may present risks for birds as they traverse their migratory paths due to building location and/or features. The City has adopted guidelines to address this issue and provided regulations for bird-safe design within the City.¹¹⁴ The regulations establish birdsafe standards for new building construction, additions to existing buildings, and replacement façades to reduce bird mortality from circumstances that are known to pose a high risk to birds and are considered to be "bird hazards." The two circumstances regulated are 1) locationrelated hazards where the siting of a structure (defined as inside or within 300 feet of an Urban Bird Refuge (open spaces that are 2 acres and larger and dominated by vegetation or open water) creates an increased risk to birds, and 2) feature-related hazards, which may increase risks to birds regardless of where the structure is located. For new building construction where the location-related standard would apply, the façade requirements include no more than 10 percent untreated glazing and minimal lighting. Any lighting that is used must be shielded and prevented from resulting in any uplighting. Feature-related hazards include free-standing glass walls, wind barriers, skywalks, balconies, and greenhouses on rooftops that have unbroken glazed segments 24 square feet or larger in size. Any structure that contains these elements must treat 100 percent of the glazing.

The project site is not located within 300 feet of an Urban Bird Refuge. The standards for location-related hazards would therefore not apply. The project would not include features on

¹¹³ San Francisco Planning Department. 2014. Required Checklist for Tree Planting and Protection for 1055 Market Street, San Francisco, CA. May 23, 2014. This document is on file and available for public review as part of Case File No. 2014.0408E.

¹¹⁴ San Francisco Planning Department. 2011. Standards for Bird Safe Buildings. Available: http://www.sfplanning.org/ftp/files/publications_reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20 Buildings%20-%2011-30-11.pdf. Accessed: August 9, 2016.

rooftops that would have unbroken glazed segments 24 square feet or larger in size, nor would the project would not include bird hazards related to building features.

The project would also be required to comply with the California Fish and Game Code and the Migratory Bird Treaty Act (MBTA), which protect special-status bird species. Existing street trees could support native nesting birds that are protected under the California Fish and Game Code or the MBTA. Although the existing trees would not be directly affected by construction activities, the activities could occur during the breeding season. However, compliance with the requirements of the Fish and Game Code and the MBTA would ensure that there would be no loss of active nests or bird mortality. The requirements include one or more of the following for construction that takes place during the bird nesting season (January 15–August 15):

- Preconstruction surveys will be conducted by a qualified biologist no more than 15 days prior to the start of work during the nesting season to determine if any birds are nesting in or in the vicinity of any vegetation that is to be removed for the construction to be undertaken.
- Any nests that are identified will be avoided, and the qualified biologist will establish a construction-free buffer zone, which is to be maintained until the nestlings have fledged.

Because the project would be subject to and would comply with City-adopted regulations for bird-safe buildings and federal and State migratory and nesting bird regulations, the project would not interfere with the movement of native resident or wildlife species or with established native resident or migratory wildlife corridors. The impacts would be less than significant.

Impact BI-3: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)

The San Francisco Board of Supervisors adopted legislation that amended the City's Urban Forestry Ordinance, Public Works Code Section 801 et seq., to require a permit from Public Works to remove any protected trees.¹¹⁵ If any activity is to occur within the dripline of a protected tree, prior to building permit issuance, a tree protection plan prepared by an International Society of Arborists–certified arborist is to be submitted to the Planning Department for review and approval. All permit applications that could affect a protected tree must include the Planning Department's Required Checklist for Tree Planting and Protection. Protected trees include landmark trees, significant trees, or streets trees that are located on private or public property anywhere within the territorial limits of the City and County of San Francisco. Article 16 of the San Francisco Public Works Code, the Urban Forestry Ordinance, provides for the protection of landmark, significant, and street trees. Landmark trees are designated by the Board of Supervisors upon the recommendation of the Urban Forestry Ordinance, such as the protection of landmark tree meets the qualification for landmark

¹¹⁵ San Francisco Planning Department. 2014. Required Checklist for Tree Planting and Protection for 1055 Market Street, San Francisco, CA. May 23, 2014. This document is on file and available for public review as part of Case File No. 2014.0408E.

designation by using established criteria (Section 810). Significant trees are those trees within the jurisdiction of Public Works or trees on private property within 10 feet of the public right-ofway that meet any of three size criteria. Significant trees must have a diameter at breast height in excess of 12 inches or a height in excess of 20 feet or a canopy in excess of 15 feet (Section 810(A)(a)).

Street trees are any trees that are growing within the public right-of-way, including unimproved public streets and sidewalks, and any trees that are growing on land that is under the jurisdiction of Public Works (Section 802(w)). If a project were to result in tree removal, subject to the Urban Forestry Ordinance, and Public Works were to grant a permit, Public Works would require replacement trees to be planted (at a one-to-one ratio) by the project sponsor or an in-lieu fee to be paid by the project sponsor (Section 806(b)).

As described in Impact BI-1, the existing building fronts on two sidewalks, one of which (Market Street) has three street trees. These existing street trees are not significant or landmark trees. There are no trees on the project site itself. Project construction would last for approximately 18 months. The three street trees on Market Street would be protected in place during project construction and two new street trees would be planted along the Stevenson Street sidewalk, as described in the Required Checklist for Tree Planting and Protection prepared for the project. Therefore, the project would not conflict with any local policy or ordinance for the protection of biological resources, and no impacts would occur.

Impact C-BI-1: The project would not result in significant impacts on biological resources, and therefore, would not contribute to a significant cumulative impact to biological resources. (Less than Significant)

The geographic scope for potential cumulative biological resources impacts encompasses land uses near the project site. The area generally includes the area bounded by Golden Gate Avenue to the north, Seventh Street to the west, Sixth Street to the east, and Mission Street to the south. This area is entirely developed with urban uses. The area does not include riparian habitat or other sensitive natural communities, and the area does not support or provide habitat for any known rare or endangered species. As stated previously, the proposed project would not have a substantial adverse effect, either directly or through habitat modifications on sensitive plant or animal species, nor would it interfere with the movement of native resident or wildlife species. Therefore, impacts on biological resources from cumulative projects would be less than significant. Similar to the proposed project, cumulative developments in the project area would be required to comply with the City's Urban Forestry Ordinance, Public Works Code Section 801 et seq. and apply for a tree removal permit with the DPW (including requirements for tree replacement or in-lieu fees) if those projects propose tree removal. Additionally, proposed projects that are within 300 feet of an Urban Bird Refuge or which feature uninterrupted glazed segments of 24 square feet or larger are required under Planning Code Section 139 to comply with the City's Standards for Bird Safe Buildings.

For these reasons, the proposed project, in conjunction with other past, present, and reasonably foreseeable future projects, would not result in cumulatively significant biological resources impacts.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
13.	. GEOLOGY AND SOILS— Would the project:					
a)	Expose people or structures to potential substantial adverse effects, including the risk loss, injury, or death involving:	of				
	 Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map iss by the State Geologist for the area or bas on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.) 	ued ed				
	ii) Strong seismic ground shaking?					
	iii) Seismic-related ground failure, including liquefaction?	g 🗆		\boxtimes		
	iv) Landslides?				\boxtimes	
b)	Result in substantial soil erosion or the loss of topsoil?			\boxtimes		
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 or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Dn-				
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?			\boxtimes		
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewa disposal systems where sewers are not availar for the disposal of wastewater?	ter				
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?					

The project would connect to San Francisco's sewer and stormwater collection and treatment system. It would not use a septic water disposal system. Therefore, Topic 13e is not applicable to the project.

As discussed above, in *California Building Industry Association v. Bay Area Air Quality Management District*,¹¹⁶ the California Supreme Court held that CEQA does not *generally* require lead agencies to consider how existing hazards or conditions might impact a project's users or residents, except where the project would significantly exacerbate an existing environmental hazard. Accordingly, hazards resulting from a project that places development in an existing or future seismic hazard area or an area with unstable soils are not considered impacts under CEQA unless the project would significantly exacerbate the seismic hazard or unstable soil conditions. Thus, the analysis below evaluates whether the proposed project would exacerbate future seismic hazards or unstable soils at the project site that would occur or be present without the project and result in a substantial risk of loss, injury, or death or increase the severity of these hazards. Only if the analysis demonstrates that the geologic or seismic hazards would be exacerbated by the project would the impact be considered significant.

Impact GE-1: The project would not result in exposure of people and structures to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismically related ground shaking, liquefaction, lateral spreading, or landslides. (Less than Significant)

A preliminary geotechnical investigation was prepared for the project, and the following discussion relies on information provided in that investigation.¹¹⁷

Results of borings and cone penetration tests from other projects in the immediate project vicinity were reviewed for the analysis in the preliminary geotechnical investigation. The results indicate that the project site is underlain by manmade sandy fill, Dune Sand, sand and clay of the Colma Formation, Old Bay Clays and Franciscan Complex bedrock. Approximately 5 to 10 feet of fill is anticipated below the existing basement slab, consisting of loose to medium dense sand with occasional debris and rubble. The fill is generally underlain by loose to medium dense sand, typically referred to as Dune Sand which appears to extend 50-60 feet below the existing sidewalk elevation. The Dune Sand is underlain by dense to very dense and stiff Colma Formation (clayey sand, sandy clay, and sand interbedded with clay seams) that is up to 60 feet thick in the area and generally extends to bedrock. Some projects in the vicinity encountered a Marsh Deposits layer between the Dune Sand and Colma Formation layers. If present, the Marsh Deposit layer would be approximately 5 to 10 feet thick and consist of soft to medium stiff sandy clay with organics and/or loose to medium dense clayey sand. Several of the borings drilled near the project site show a layer of very stiff clay (referred to as Old Bay Clay) that varies from 15 to 30 feet thick within the Colma Formation layer. This layer is typically over-consolidated and contains occasional layers of dense to very dense clayey and

¹¹⁶ California Building Industry Association v. Bay Area Air Quality Management District, 62 Cal.4th 369. Opinion Filed December 17, 2015.

¹¹⁷ Rollo & Ridley Geotechnical Engineers and Scientists. 2015. Preliminary Geotechnical Report for 1055 Market Street San Francisco, California. April 7. This document is on file and available for public review as part of Case File No. 2014.0408E.

silty sand. The project site is in an area where the Old Bay Clay is not continuous or uniform in thickness. Franciscan Complex bedrock is present at about 110 to 120 feet below the Market Street grade. The bedrock typically consists of moderately to deeply weathered sandstone and shale. Groundwater has been measured adjacent to the project site at depths ranging from approximately 18 to 22 feet below the surface of Market Street.

The project site does not lie within an Alquist-Priolo Earthquake Fault Zone, and no active or potentially active faults exist on or in the immediate vicinity of the site. The nearest mapped active fault is the North San Andreas Peninsula Fault, which is located approximately 12 miles to the west.¹¹⁸ Therefore, the project would not exacerbate hazards related to the exposure from placing persons or structures due to the 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.

During a major earthquake located on a nearby fault, strong to very strong groundshaking is expected to occur at the project site. However, the project would not exacerbate the exposure of people or structures to substantial adverse effects due to this groundshaking because the project would be designed and constructed in accordance with the most current San Francisco Building Code (local building code). The local building code has adopted California Building Standards Code (the state code) requirements with certain local amendments. The state code defines minimum design loads (live, dead, snow, wind, rain, flood, ice and earthquake as well as the required load combinations) that must be met to safeguard life or limb, health, property, and public welfare. The standards are not intended to eliminate risks, but would reduce the hazards to an acceptable level by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within the state.

Chapter 18 of the state code, Soils and Foundations, provides the parameters for geotechnical investigations and structural considerations in the selection, design and installation of foundation systems. Section 1803 sets forth the basis and scope of geotechnical investigations conducted. Section 1804 specifies considerations for excavation, grading and fill to protect adjacent structures and prevent destabilization of slopes due to erosion and/or drainage. In particular, Section 1804.1, Excavation near foundations, requires that adjacent foundations be protected against a reduction in lateral support as a result of project excavation. This is typically accomplished by underpinning or protecting said adjacent foundations from detrimental lateral or vertical movement, or both. Section 1807 specifies requirements for foundation walls, retaining walls, and embedded posts and poles to ensure stability against overturning, sliding, and excessive pressure, and water lift including seismic considerations. Sections 1808 (foundations) and 1810 (deep foundations) specify requirements for foundations systems such that the allowable bearing capacity of the soil is not exceeded and differential settlement is

¹¹⁸ State of California Department of Conservation. Alquist-Priolo Regulatory Maps. Accessed at: http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm. Accessed on April 17, 2017.

minimized based on the most unfavorable loads specified in Chapter 16, Structural, for the structure's seismic design category and soil classification at the project site.

The preliminary geotechnical investigation for the site concluded that for a design in accordance with the local building code, a site class D-level foundation design, as defined by the International Building Code,¹¹⁹ should be used if a deep foundation is utilized, otherwise site class F-level foundation design, as defined by the International Building Code, should be used. The foundation designs must consider the likely composition and seismic class of the substrate. The investigation determined that the primary foundation concerns are the presence of the BART tunnels in proximity to the project site, the shoring and underpinning of adjacent buildings, potential effects on sidewalks, roadways or utilities, and waterproofing. The investigation concluded that a deep foundation system consisting of either driven or drilled-inplace piles that extend through the fill, liquefiable deposits and the BART zone of influence (ZOI)¹²⁰ and gain support in the underlying dense to very dense Dune sand and sand and clayey sand of the Colma Formation would be appropriate foundation support for the proposed structure.^{121,122}

In addition, the Seismic Hazards Mapping Act (seismic hazards act, located in Public Resources Code 2690 *et seq*), enacted in 1990, protects public safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failures or hazards caused by earthquakes. The California Geological Survey designates the project site as within an area that may be prone to earthquake-induced ground failure during a major earthquake due to liquefaction hazard, but not landslide hazard as the site is relatively flat. Because of this, site design and construction must comply with the seismic hazards act, its implementing regulations, and the California Department of Conservation's guidelines for evaluating and mitigating seismic hazards. In addition to the seismic hazards act, adequate investigation and mitigation of failure-prone soils are also required by the mandatory provisions of the state code and the California Code of Regulations, Title 24. The regulations implementing the seismic hazards act require that a project shall be approved only when the nature and severity of the seismic hazards at the site have been evaluated in a geotechnical report and appropriate mitigation¹²³ measures have been proposed and incorporated into the project, as applicable.

¹¹⁹ International Code Council, Inc. International Building Code. 2006.

¹²⁰ Zone of Influence is defined as the area above a Line of Influence which is a line from the critical point of a substructure, in this case the base of the BART tunnels, at a slope of 1 ½ horizontal to 1 vertical (line sloping towards ground level).

¹²¹ If a deep foundation system is not used, the preliminary geotechnical study recommended a site class F-level design.

¹²² Rollo & Ridley Geotechnical Engineers and Scientists. 2015. Geotechnical Investigation for 1055 Market Street San Francisco, California. April 7.

¹²³ In the context of the SHMA, "mitigation" refers to measures that reduce earthquake hazards, rather than the Mitigation Measures that were identified in the programmatic EIR, which are required by the California Environmental Quality Act (CEQA) to reduce or avoid environmental impacts of a proposed project.

According to the preliminary geotechnical investigation, the potential for lateral spreading to occur beneath the project site is low. A subsequent project-specific geotechnical report will be prepared once construction documents are available. The building department will review the project plans for conformance with the project-specific geotechnical report during its review of the building permit for the project. In addition, DBI may require additional site-specific soils reports through the building permit application process, as needed. DBI's requirement for a geotechnical report and review of the building permit application pursuant to the department's implementation of the building code, local implementing procedures, and state laws, regulations and guidelines would ensure that the proposed project would have no significant impacts related to soils, seismic or other geological hazards.¹²⁴

The project is required to conform to the San Francisco Building Code, which ensures the safety of all new construction in the City. The project site is located in a Liquefaction Hazard Zone. DBI will review the project-specific geotechnical report during its review of the building permit for the project. In addition, DBI may require additional site specific soils report(s) through the building permit application process, as needed. The recommendations in any geotechnical report approved by DBI would become requirements for the proposed project and review of the building permit application pursuant to DBI's implementation of the Building Code would ensure that the proposed project would have no significant impacts related to soils, seismic or other geological hazards.

Therefore, the proposed project would not result in exposure of people and structures to potential substantial adverse geologic effects. Impacts from seismic events or geologic hazards would be considered less than significant.

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

The project site is built out and covered with impervious surfaces, including a building and sidewalks. Therefore, the proposed project would not result in the loss of topsoil. Site preparation and excavation activities would disturb soils on the project site, creating the potential for wind and water-borne soil erosion. However, the project would implement construction best management practices to prevent erosion and the discharge of sediment into construction site stormwater runoff, as described in Section E.14, Hydrology and Water Quality. Impacts related to the loss of topsoil and soil erosion would be less than significant.

Impact GE-3: The project would not be located on a soil that is unsuitable or that could become unstable because of the project, and that could result in collapse or other impacts to surrounding structures. (Less than Significant)

As discussed in Impact GE-1, building department staff will review the project plans for conformance with the project-specific geotechnical report during the review of the building

124 Ibid.

permit for the project and may require additional site specific soils reports through the building permit application process. The proposed building's foundation would be designed by the engineer of record for the specific soil conditions encountered at the project site. As required by the seismic hazard act and the building code, the foundation design would incorporate the recommendations of the project specific geotechnical investigation to address seismic hazards and ensure building stability to prevent collapse or other damage to the building and surrounding properties. The excavation of the proposed building's foundation to a depth greater than that of the surrounding buildings, additionally, could result in instability of those buildings, which could result in settlement, collapse, or other damage to those structures, even during static conditions (i.e., not just during an earthquake). If the foundation, including underpinning and shoring were not adequately designed, significant impacts could occur. The city and state building codes each define requirements for foundation plan review and approval in order to ensure that all projects are constructed according to code and have been designed in a manner that is consistent with building code requirements and thus avoids destabilizing surrounding buildings and foundations.

The project site is also within the BART ZOI, which means the project could have potential to impact the BART Tunnel by making soils unstable and changing settlement patterns. BART has general guidelines for design and construction over or adjacent to BART subway structures, which state that:

- 1. The BART ZOI is defined as the area above a line from subway invert at a slope of 1-1/2 horizontal to 1 vertical
- 2. Soil redistribution caused by temporary shoring or permanent foundation systems shall be analyzed
- 3. Shoring shall be required to maintain soil's at-rest condition; shoring structure shall be monitored for movement
- 4. Minimum predrilled depth for piles shall be approximately 10 feet below the line of influence
- 5. Vibration monitoring of piling operations closest to the subway will be required; piles to be driven in a sequence away from the subway structure
- 6. Tunnels, where affected, shall be monitored for movement and deformation due to adjacent construction activities as to ensure structural and operation safety
- 7. Dewatering shall be monitored for changes in groundwater level; recharge program shall be required if existing groundwater level is expected to drop more than 2 feet
- 8. If the basement is over excavated deeper than the existing basement and foundation grade, the amount of loading (on subway) can be increased to the extent it is balanced by the weight of the removed material (120 pounds per cubic foot for dry soil, and 70 pounds per cubic foot of submerged soil); however, the effect of soil rebound in such cases shall be fully analyzed
- 9. All structures shall be designed as not to impose any temporary or permanent adverse effects, including unbalanced loading and seismic loading, on the adjacent BART subways.

The BART ZOI partially extends into the project site, and the previously described BART guidelines must be followed. A BART plan review would be necessary for any construction on, or adjacent to, the BART right-of-way prior to construction, and the structural plans and calculations for the project would be reviewed by BART during the final design phase. The project sponsor would submit engineering calculations to BART to demonstrate that the project would not adversely affect the BART and Muni stations or tunnels. The requirements for BART plan review and compliance with the local and state building code would ensure that project construction would not result in damage or undermining of surrounding buildings, their foundations, or the BART below grade structures, and would ensure that any impacts are less than significant.

Impact GE-4: The project site would not be located on expansive soil that could create substantial risks to life or property. (Less than Significant)

Expansive soils expand and contract in response to changes in soil moisture, most notably when near-surface soils change from saturated to low-moisture-content conditions and back again. As noted above, the site is likely to contain approximately 5 to 10 feet of fill below the existing basement level, which is likely underlain by 50-60 feet of Dune sands. Medium dense sandy fill and Dune Sand are anticipated to be exposed at the base of the excavation level across the footprint of the proposed basement. Because the artificial fill and Dune Sands found beneath the project site do not contain high proportions of clay particles that can shrink or swell with changes in moisture content, expansive soils are not anticipated to be found within the project site. Furthermore, the City's building code section 1803.5.3 requires that geotechnical investigations identify if and where expansive soils exist on the project site. In addition, if expansive soils are present, then building code section 1803.6 (Reporting) requires that the geotechnical report include recommendations for the foundation type and design that include provisions to mitigate the effects of expansive soils. Therefore, potential impacts related to expansive soils would be less than significant.

Impact GE-5: The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant with Mitigation)

Paleontological resources, or fossils, are the remains, imprints, or traces of animals, plants, and invertebrates, from a previous geological period. Collecting localities and the geologic formations containing those localities are also considered paleontological resources. These resources represent a limited, nonrenewable resource, and once destroyed they cannot be replaced.

The deposition and preservation of paleontological resources are related to the lithologic (rock) unit in which they occur. If a rock type was created in a depositional environment that was not conducive to the deposition and preservation of fossils, fossils will not be present. Lithologic

units that may be fossiliferous include sedimentary and volcanic formations. Pleistocene sediments in the San Francisco Bay are known to yield vertebrate fossils.¹²⁵

The project site is blanketed by approximately 5 to 10 feet of artificial fill, consisting of loose to medium dense sand with occasional debris and rubble. The artificial fill is underlain by medium-dense to dense native sand of Quaternary period, known locally as Dune Sand. The Dune Sand and the fill are underlain by dense to very dense and stiff Colma Formation that is up to 60 feet thick and generally extends to bedrock.

Some projects in the vicinity encountered a Marsh Deposits layer between the Dune Sand and Colma Formation layers. Because the Marsh Deposits could be of Pleistocene age and thus may contain vertebrate fossils, the Marsh Deposits have undetermined paleontological sensitivity. If present, the Marsh Deposits layer would be approximately 5 to 10 feet thick and consist of soft to medium stiff sandy clay with organics and/or loose to medium dense clayey sand.

The project would require limited excavation below the existing basement level (approximately 4 feet), and that excavation would likely extend into the Dune Sand. Drilled piers would additionally extend through the Dune Sand into the Colma Formation. These piers would pass through the Dune Sand and potentially the Marsh Deposits, if present. Paleontological resources could be found within the Marsh Deposits that may exist below the project site. If paleontological deposits were encountered and damaged or destroyed during excavation or drilling of the piers, a significant impact could occur. **Mitigation Measure M-GE-6** would be required to minimize the potential for impacts to paleontological resources to less-than-significant levels.

Mitigation Measure M-GE-6: Paleontological Resource Accidental Discovery

Before the start of any earthmoving activities, the project sponsor shall retain a qualified paleontologist, as defined by the Society of Vertebrate Paleontology (SVP), who is experienced in teaching non-specialists. The qualified paleontologist shall train all construction personnel who are involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils that are likely to be seen during construction, and proper notification procedures should fossils be encountered. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying the City as well as a qualified paleontologist, who shall evaluate the significance.

If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work within 50 feet of the find and notify the project sponsor and the San Francisco Planning Department. In addition, the fossil

¹²⁵ UC Museum of Paleontology Specimens. 2015. UC Museum of Paleontology Specimens. Available: http://ucmpdb.berkeley.edu/cgi/ucmp_query2. Accessed: October 8, 2016.

should be protected by an "exclusion zone" (an area approximately five feet around the discovery that is marked with caution tape to prevent damage to the fossil). Construction work in the affected areas shall remain stopped or be diverted to allow recovery of fossil remains in a timely manner. The project sponsor shall retain a qualified paleontologist to evaluate the resource. Based on the scientific value or uniqueness of the find, the qualified paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. The qualified paleontologist may also propose modifications to the stop-work radius based on the nature of the find, site geology, and the activities occurring on the site. If treatment and salvage is required, recommendations shall be consistent SVP's 2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources,¹²⁶ and currently accepted scientific practice, and shall be subject to review and approval by the City. If required, treatment for fossil remains may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection [e.g., the University of California Museum of Paleontology], and may also include preparation of a report for publication describing the finds. Recommendations in the recovery plan that are determined by the City of San Francisco (City) to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered. The City shall be responsible for ensuring that the monitor's recommendations regarding treatment and reporting are implemented. The City shall ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate methods.

No unique geologic features exist at the project site, and there would be no impact related to such resources.

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

Geological impacts, including impacts on paleontological resources, are generally site specific and have limited potential for resulting in cumulative effects with other projects. Cumulative development would be subject to the same design review and safety measures that apply to the project. These measures would reduce the geologic effects of cumulative projects to less-thansignificant levels. Projects with a potential for impacts on paleontological resources would be subject to the same review and mitigation requirements; however, given the limited scope and scale of urban development projects for encountering and damaging paleontological resources

¹²⁶ Society of Vertebrate Paleontology. 1996. Conditions of Receivership for Paleontologic Salvage Collections. Final draft. Society of Vertebrate Paleontology News Bulletin 166:31-32.

and the localized effects of geologic hazards, cumulative impacts would be less than significant. The proposed project, as mitigated, would not be a considerable cumulative contribution to that less than significant impact.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
14.	HYDROLOGY AND WATER QUALITY Would the project:					
a)	Violate any water quality standards or waste discharge requirements?			\boxtimes		
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)?					
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?					
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?					
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?					
f)	Otherwise substantially degrade water quality?			\boxtimes		
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?					
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?					
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?					
j)	Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?					

The project site is not located in a 100-year flood hazard boundary, a dam failure area, or a tsunami flood hazard area.^{127,128} A seiche is an oscillation of a water body, such as a bay, that may cause local flooding. A seiche could occur in San Francisco Bay because of seismic or atmospheric activity. The project site is located 1.3 miles from San Francisco Bay and would therefore not be subject to a seiche. No mudslide hazards exist at the project site because the project site is not located near any landslide-prone areas.¹²⁹ Therefore, topics 14g, 14h, 14i, and 14j are not applicable to the project and are not discussed further.

Impact HY-1: The project would not violate water quality standards or waste discharge requirements, substantially degrade water quality, or provide substantial additional sources of polluted runoff. (Less than Significant)

Wastewater resulting from the proposed project would flow to the City's combined stormwater and sewer system, which is designed to collect and treat both sanitary sewage and rainwater runoff. Wastewater would be treated to standards contained in the City's NPDES Permit for the Southeast Water Pollution Control Plant prior to discharge into the San Francisco Bay. The NPDES standards are set and regulated by the San Francisco Bay Area RWQCB, and therefore, the proposed project would not conflict with RWQCB requirements.

Proposed project construction could have the potential to result in runoff of surface water containing sediments and other pollutants from the site, which could drain into the combined sewer and stormwater system, necessitating treatment at the Southeast Water Pollution Control Plant prior to discharge into San Francisco Bay. However, to minimize the potential for sediments and other pollutants to enter the combined system, an Erosion and Sediment Control Plan would be prepared and implemented by the Project Sponsor, as required by the SFPUC because ground surface disturbance would exceed 5,500 square feet. Implementation of the Erosion and Sediment Control Plan would reduce impacts from construction-related activities to a less-than-significant level.

Once the project was completed, no soils would be exposed that could generate polluted runoff. The proposed project footprint would completely cover the project site, thus no substantial increase in impervious surfaces would occur. The project would also be required to comply with the City's Stormwater Management Ordinance (Ordinance No. 83-10), which would require the project sponsor to maintain, reduce, or eliminate the existing volume and rate of stormwater runoff discharged from the project site. To achieve this goal, the project would include implementation and installation of appropriate stormwater management systems that would retain runoff on-site, promote stormwater reuse, and limit (or eliminate) site discharges to the combined sewer collection system. The project would not violate water quality standards

¹²⁷ San Francisco Planning Department. 2012. San Francisco General Plan. Community Safety Element, Map 6. Available: http://www.sf-planning.org/ftp/general_plan/Community_Safety_Element_2012.pdf. Accessed August 9, 2016.

¹²⁸ Ibid, Map 5.

¹²⁹ Ibid, Map 4.

or waste discharge requirements, substantially degrade water quality, or provide substantial additional sources of polluted runoff. This impact would be less than significant.

Disposal of Excavation Water in Stormdrains

The proposed depth of excavation would be approximately 16 feet below Market Street. Therefore, the project's excavation could encounter groundwater, requiring dewatering of the discharge which could impact the water treatment requirements at the Southeast Water Pollution Control Plant. Any groundwater encountered during construction of the proposed project would be subject to requirements of the City's Sewer Use Ordinance (Ordinance Number 19-92, amended 116-97), as supplemented by Department of Public Works Order No. 158170, requiring a permit from the Wastewater Enterprise Collection System Division of the SFPUC. A permit may be issued only if an effective pretreatment system is maintained and operated. Each permit for such discharge shall contain specified water quality standards and may require the project sponsor to install and maintain meters to measure the volume of the discharge to the combined sewer system. With implementation of the requirements in the permit, the discharges would comply with local and RWQCB regulations and would have less than significant water quality impacts.

Impacts HY-2: The project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. (Less than Significant)

The existing project site is completely covered by a vacant two-story building, greatly limiting the amount of surface water that can currently infiltrate to the groundwater. The proposed project would not result in an increase in impervious surface. As described in the preliminary geotechnical investigation,¹³⁰ groundwater was previously observed at a depth of 18 to 22 feet bgs (below ground surface). Depending on rainfall amounts and time of year, the groundwater level may rise to 15 feet bgs. As the depth of excavation would be approximately 16 feet bgs, the proposed project's excavation has the potential to encounter groundwater, which could impact groundwater supplies. Although dewatering could be required during construction, any effects related to lowering the water table would be temporary and would not be expected to substantially deplete groundwater resources. The proposed project would not require longterm, continuous dewatering following construction. The underground structure would be waterproofed to prevent groundwater seepage and constructed to withstand the hydrostatic pressure of the groundwater. The specifications for construction dewatering and protection against long-term groundwater intrusion are outlined in the geotechnical investigation for the proposed project and will be reviewed by the Department of Building Inspection as part of the building permit process. In addition, the project site is located in the Downtown San Francisco

¹³⁰ Rollo and Ridley Geotechnical Engineers and Scientists. 2015. *Preliminary Geotechnical Report 1055 Market Street, San Francisco, California*. April 7. This document is on file and available for public review as part of Case File No. 2014.0408E.

Groundwater Basin. This basin is not used as a drinking water supply and no plans for development of this basin exist for groundwater production.

The project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Impacts would therefore be less than significant.

Impact HY-3: The project would not result in altered drainage patterns that would cause substantial erosion or flooding or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. (Less than Significant)

The existing project site is located in downtown San Francisco, is essentially flat, and is completely covered by a vacant two-story building. Therefore, development of the proposed project would not substantially increase the rate or amount of surface runoff in a manner that would result in on- or off-site flooding beyond current conditions.

As described in Impact HY-1, there would be some potential for the transportation of soil particles during construction. However, the project would be required by the SFPUC to develop and implement an Erosion and Sediment Control Plan and implement BMPs to minimize potential for on- or off-site erosion, reducing impacts from construction-related activities to a less-than-significant level.

After construction, the amount of stormwater discharged from the project site would not increase. The project would be required to comply with the City's Stormwater Management Ordinance (Ordinance No. 83-10), which would require the project sponsor to maintain, reduce, or eliminate the existing volume and rate of stormwater runoff discharged from the project site, as discussed under Impact HY-1.

The project would not result in altered drainage patterns that would cause substantial erosion or flooding or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. No streams or rivers are present on the project site. Therefore, the proposed project would not alter the route of a stream or river or substantially alter the existing drainage pattern of the project site or area. This impact would therefore be less than significant.

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

Cumulative development in the project area would result in intensified uses and thus a cumulative increase in wastewater generation. The SFPUC has accounted for such growth in its service projections.¹³¹ Cumulative development could also result in an increase in polluted runoff and stormwater discharges. However, the other development projects would be required to comply with construction-phase stormwater pollution control and water quality regulations,

¹³¹ San Francisco Public Utilities Commission. 2016. *Urban Water Management Plan*. June. Available: http://www.sfwater.org/modules/showdocument.aspx?documentid=9300. Accessed: December 3, 2016.

if necessary, similar to the project. For these reasons, the project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative hydrology and water quality impact.

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
15	HAZARDS AND HAZARDOUS MATER Would the project:	rials—				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?					
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?					
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?					
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?					
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?					
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?					
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?					
h)	Expose people or structures to a significant risk of loss, injury or death involving fires?					

The project site is not located within an airport land use plan area or in the vicinity of a private airstrip. Topics 15e and 15f are therefore not applicable to the project.

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

The project would involve demolition of an existing building and construction of a new hotel building with ground-floor retail space. Routine transport of hazardous materials would not occur during construction.

The project would result in the use of relatively small amounts of hazardous materials, those typically used by retail land uses, such as disinfectants, cleaners, fertilizers, and other types of hazardous materials. Because the materials are labeled to inform users of potential adverse effects as well as proper handling and care, it is unlikely that the routine use of such materials would create a significant hazard. Most of the hazardous components of disinfectants, cleaners, fertilizers, and other types of hazardous materials are consumed through use, resulting in little waste. Hazardous materials used during project operation would not pose any substantial public health or safety hazards related to hazardous materials transport, use or disposal. The project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials. This impact would be less than significant.

Impact HZ-2: The project would not create a potentially significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant)

As the proposed project would involve demolition of an existing building and subsequent construction of a new building, a Phase I Environmental Site Assessment (ESA) was prepared for the proposed project to provide a record of conditions at the subject property and to evaluate what, if any, environmental issues exist at the project site.¹³² The Phase I ESA assessed the potential for adverse environmental impacts from the current and historical practices on the site and the surrounding area. No environmental conditions, including any known hazardous materials releases or hazardous conditions in connection with past or present uses for the project site, were identified during preparation of the Phase I ESA.

Although the Phase I ESA found no environmental conditions for the project site, the Phase I ESA did not include an asbestos or lead-based paint assessment in its scope, as such surveys and sampling are not a part of standard Phase I ESA practices. The presence of lead-based paint and asbestos-containing materials (ACMs) depends upon the date of building construction. Generally, structures built after 1978 are not expected to contain lead-based paint, and structures built after 1980 are not presumed to contain ACM. While the existing building on the project site was built in 1981, building materials from the prior 1906 structure could be present on site and could be disturbed by demolition.

Demolition and construction activities would follow all appropriate standards and regulations for hazardous materials, including the California Health and Safety Code. Currently, Section 19827.5 of the California Health and Safety Code 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.

¹³² AEI Consultants. 2013. Phase I Environmental Site Assessment, 1055 Market Street, San Francisco, California. Prepared for Paradigm Companies. December 2, 2013. This document is on file and available for public review as part of Case File No. 2014.0408E.

BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement and is to be notified 10 days in advance of any proposed demolition or asbestos abatement work. The notification must include (1) the address of the operation; (2) the names and addresses of those who are responsible; (3) the location and description of the structure to be altered, including size, age, prior use, and the approximate amount of friable asbestos; (4) scheduled start and completion dates for the asbestos abatement work; (5) nature of the planned work and methods to be employed; (6) procedures to be employed to meet BAAQMD requirements; (7) and the name and location of the waste disposal site to be used. BAAQMD randomly inspects asbestos removal operations. BAAQMD will inspect any removal operation about which a complaint has been received. Any asbestos-containing building material disturbance at the project site would be subject to the requirements of BAAQMD Regulation 11, Rule 2: Hazardous Materials; Asbestos Demolition, Renovation, and Manufacturing.

The local office of the State Occupational Safety and Health Administration (Cal/OSHA) must also be notified of any asbestos abatement that is to be carried out. Asbestos abatement contractors must follow state regulations contained in the California Code of Regulations, Title 8, Section 1529, and Title 8, Sections 341.6 through 341.14, where there is asbestos-related work involving 100 square feet or more of asbestos-containing building material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento. The contractor and hauler of the material are required to file a Hazardous Waste Manifest that details the hauling of the material from the site and the disposal of it. Pursuant to California law, San Francisco DBI will not issue the required permit until the project sponsor has complied with the notice requirements described above.

If lead-based paint is present, demolition of the current building on the project site would be subject to the Cal/OSHA Lead in Construction Standard (8 CCR Section 1532.1), which requires development and implementation of a lead compliance plan when materials that contain lead would be disturbed during construction. The plan must describe activities that could emit lead, methods that will be used to comply with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. Cal/OSHA would require 24-hour notification if more than 100 square feet of materials that contain lead would be disturbed. Any other hazardous building materials identified either before or during demolition or renovation shall be abated according to federal, state, and local laws and regulations.

Therefore, through compliance with existing laws and regulations, impacts related to exposure to hazardous building materials during demolition would be less than significant.

Impact HZ-3: The project would not emit hazardous emissions or result in hazardous or acutely hazardous materials, substances, or waste being handled within 0.25 mile of an existing or proposed school site. (Less than Significant)

There are no public schools within 0.25 mile of the project site.¹³³ There are private schools within 0.25 mile of the project site, including De Marillac Middle School, located 0.10 mile to the northwest, and San Francisco City Academy, located 0.17 mile to the north.

Construction of the project involves demolition and excavation, both of which could require the handling and transport of hazardous wastes, as described in Impact HZ-2. Existing regulations require surveys for lead-based paint, asbestos containing materials, and other hazardous building materials. If surveys determine that hazardous building materials are present, the project sponsor would be required to comply with regulations described in Impact HZ-2, which would ensure that hazardous materials are handled safely and would not be released within 0.25 mile of schools. Impacts to schools, due to the handling of hazardous materials during construction, would therefore be less than significant.

Operation of the project would result in the use of relatively small amounts of hazardous materials during operation, those that are typically used by hotel and retail uses, such as disinfectants, cleaners, fertilizers, and similar types of hazardous materials. Because the materials would be used in small quantities and are labeled to inform users of potential adverse effects as well as proper handling and care, it is unlikely that the use of such materials would create a significant hazard. Overall, the project would not use or emit hazardous or acutely hazardous substances. Therefore, the project's operational impacts with respect to hazardous emissions of handling hazardous or acutely hazardous materials, substances, or waste near a school would be less than significant.

Impact HZ-4: The project site would not be constructed on a site identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. (Less then Significant)

The project would not be on a site identified as a hazardous material site pursuant to Government Code Section 65962.5. According to the RWQCB's GeoTracker online database, no sites with significant environmental impacts are present within the project boundaries. Sites previously identified as Leaking Underground Storage Tank cleanup sites are present in surrounding areas; however, those sites have since been designated as completed-case closed, and have been remediated to the satisfaction of the applicable regulatory authority (SWRQCB or DTSC).¹³⁴ As previously mentioned, the Phase I ESA prepared for the project site identified no evidence of recognized environmental conditions. According to the Phase I ESA, early uses

¹³³ San Francisco Public Schools. 2016. Search results. Available: http://enrollinschool.org/lookup/. Accessed: August 9, 2016.

¹³⁴ Environmental Data Resources, Inc. 2013. EDR Radius Map Report. November 19. Data available for review as part of Case File No. 2014.0408E.

of the property include a restaurant, saloon, and dwellings. The project site was formerly occupied by the Forrest Building, which was constructed in 1908 as a six-story structure with a basement and included a general store and retail stores. In 1979, a fire destroyed the five upper floors of the building. The remaining lower levels were demolished, and the current structure was built around 1981. The structure has been occupied by Kaplan's Surplus & Sporting Goods store since 1969, and the site has never been used for industrial uses. Historical land uses are presented in Table 12.

Date Range	Subject Property Use	
1887-1899	Restaurant, saloon, dwelling units	
1908	Construction of six-story building with basement	
1910-1913 Building occupied by Abrams Company general store		
1916-1966	Building occupied by various retail stores including furniture, clothing, shoes, and various restaurants	
1966-Present	Building occupied by Kaplan's Surplus & Sporting Goods store	
1979	Five upper floors of current subject property building removed due to fire damage	
1981	Subject property building constructed	

Table 12: Historical Land Uses

Source: AEI Consultants. 2013. Phase I Environmental Site Assessment 1055 Market Street, City and County of San Francisco, California 94103. December 2013.

The San Francisco Department of Public Health (SFDPH) has jurisdiction over areas likely to contain 1906 earthquake rubble (historical landfill) under Article 22A of the San Francisco Health Code (also known as the Maher Ordinance). Historical landfill typically contains a high lead concentration due to lead-based paint, and SFDPH requires soil sampling if a project requires excavation. The project site is located near historical landfill areas.¹³⁵ Because the proposed project would necessitate excavation, the project would be subject to the Maher Ordinance, and soil sampling and/or soil remediation may be required.

To enable SFDPH to determine if soil sampling is required, the Project Sponsor has submitted a Maher Application to the DPH in accordance with Article 22A. The application and associated documents, including the Phase I ESA, are under review by DPH. If the review finds that there may be hazardous substances in the soil or groundwater, a complete Phase II Site Characterization and Work Plan must be submitted once onsite buildings have been demolished. The Project Sponsor would also be required to submit a site mitigation plan (SMP) to SFDPH or other appropriate state or federal agencies, and to remediate any site contamination in accordance with an approved SMP prior to the issuance of the building permit. Compliance with the Maher Ordinance requirements would avoid potential contamination-related impacts. Therefore, the project would not result in a significant hazard to

¹³⁵ San Francisco Planning Department, Expanded Maher Area Map, March 2015. Available online at http://www.sfplanning.org/ftp/files/publications_reports/library_of_cartography/Maher%20Map.pdf, accessed December 29, 2016

the public or environment from contaminated soil and groundwater, and this impact would be less than significant.

Impact HZ-5: The project would not expose people or structures to a significant risk of loss, injury, or death involving fires or interfere with the implementation of an emergency response plan. (Less than Significant)

The San Francisco Building and Fire Codes ensure fire safety in San Francisco. In addition, the San Francisco Fire Department (as well as San Francisco DBI) reviews final building plans to ensure conformance with these codes. The project would conform to these fire safety standards, which (depending on building type) may also include development of an emergency procedure manual and an exit drill plan. The project is not located within a fire hazard severity zone.¹³⁶

Implementation of the project could add to congested traffic conditions in the immediate area in the event of an emergency evacuation. However, traffic associated with the project would not be substantial within the dense urban setting of the project site, and it is expected that traffic would disperse within the existing street grid, resulting in no significant adverse effects on emergency vehicle access. Therefore, the project would not impair implementation of, or physically interfere with, an adopted emergency response plan, and its impact on emergency response plans and fire hazards would be less than significant.

Impact C-HZ-1: The project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in less-than- significant cumulative impacts related to hazards and hazardous materials. (Less than Significant)

Impacts associated with hazards are generally site specific and typically do not result in cumulative impacts. The project would not have a significant impact due to hazardous material conditions on the project site or in the vicinity with implementation of mitigation. The proposed project could result in potential impacts related to hazardous materials, conducting construction activities within potentially contaminated soil, and demolition of structures that contain hazardous building materials; however, implementation of Mitigation Measure M-HZ-2a, Lead-based Paint and Asbestos Survey, and Mitigation Measure M-HZ-2b, Hazardous Building Materials Abatement, and conformance to applicable regulatory requirements would reduce those impacts to less-than-significant levels. Furthermore, any potential impacts would be primarily restricted to the project site and the immediate vicinity. No other existing, proposed, or foreseeable developments in the project vicinity would contribute considerably to cumulative effects. Any such cumulative project would be subject to regulatory requirements and would not combine to create a significant cumulative impact. For these reasons, the project, in combination with other past, present, and reasonably foreseeable future projects, would not contribute considerably to a significant cumulative hazardous materials impact.

¹³⁶ California Department of Forestry and Fire Protection. 2008. San Francisco County Fire Hazard Safety Zone Map. Available at http://www.fire.ca.gov/fire_prevention/fhsz_maps_sanfrancisco.php. Accessed: August 9, 2016.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
	. AND ENERGY RESOURCE e project:	S—				
, mineral resour	ess of availability of a known ce that would be of value to the residents of the state?					\boxtimes
important min	ess of availability of a locally- eral resource recovery site a local general plan, specific plan se plan?					
, 0	vities which result in the use of of fuel, water, or energy, or use eful manner?			\boxtimes		

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 1975.¹³⁷ This designation indicates that there is inadequate information available for assignment to any other MRZ, and thus, the project site is not a designated area of significant mineral deposits. Further, according to the *San Francisco General Plan*, no significant mineral resources exist in San Francisco. No operational mineral resource recovery sites exist in the project area. Therefore, topics 16a and 16b are not applicable to the project.

Impact ME-1: The project would not encourage activities that would result in the use of large amounts of fuel, water, or energy or use these resources in a wasteful manner. (Less than Significant)

The project involves demolition of an existing building and construction of a new 10-story, 90foot-tall hotel building, totaling approximately 73,721 gsf, with ground-floor retail space and one subterranean level. Electricity would be required during demolition and construction activities to operate necessary machinery and equipment. Construction vehicles and equipment would use primarily diesel fuel, and construction workers' vehicles would use gasoline and diesel to commute. Construction activities would not result in a demand for electricity or fuels that would be greater than that of any other similar project in the region. Construction-related energy use would not be large or wasteful relative to similar projects or energy use in the region

¹³⁷ California Division of Mines and Geology. 1996. Open File Report 96 03 and Special Report 146, Parts I and II. Available: http://www.conservation.ca.gov/cgs/minerals/mlc/Pages/index.aspx.

as a whole. Therefore, the construction-related impacts of the project related to fuel, water, or energy would be less than significant.

Operation of the proposed hotel building would not result in wasteful use of fuel, water, or energy. The GHG analysis includes a description of the energy-conservation measures that would be implemented or continued under the project. The project would use energy produced in regional power plants from hydropower, natural gas, coal, and nuclear fuels and would not use substantial quantities of other nonrenewable natural resources. The project would meet or exceed current state and local energy conservation standards, including the City's Green Building Ordinance and Title 24 of the California Code of Regulations, which is enforced by the San Francisco DBI. Although the project would increase demand for energy, the project-generated demand would be typical for a project of this size and negligible in the context of the overall consumer demand in San Francisco and the state. As such, operations-related energy use would not be large or wasteful. Operations-related impacts of the project related to fuel, water, or energy would be less than significant.

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

No known minerals occur at the project site or in all of San Francisco, and thus, no cumulative impact on mineral resources would occur. 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 GHG emissions to 25 percent below 1990 levels by 2017 and ultimately reduce GHG emission to 80 percent below 1990 levels by 2050, which would be achieved through a number of different strategies, including energy efficiency. While several other projects in the vicinity would require energy and resources, compliance with the existing plans and conservation ordinances would ensure that a significant cumulative impact would not occur. Therefore, the proposed project would not contribute considerably to a significant cumulative energy and mineral impact.

		Less Than Significant			
	Potentially	with	Less Than		
	Significant	Mitigation	Significant	No	Not
Topics:	Impact	Incorporated	Împact	Impact	Applicable

17. AGRICULTURE AND FOREST RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**

a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?			\boxtimes
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)?			
d)	Result in the loss of forest land or conversion of forest land to non-forest use?			\boxtimes
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?			

The proposed project is within an urbanized area in the City and County of San Francisco that does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; forest land; or land under Williamson Act contract. The area is not zoned for any agricultural uses. Therefore, topics 17a, b, c, d, and e are not applicable to the proposed project.

Тор	ics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
18.	MANDATORY FINDINGS OF SIGNIFIC Would the project:	CANCE—				
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?					
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.)					
c)	Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?					

As discussed in the previous sections, the proposed project is anticipated to have only less-thansignificant impacts in the areas discussed. The foregoing analysis identifies potentially significant impacts related to cultural resources, noise, air quality, and geology and soils, which would be mitigated through implementation of mitigation measures, as described in the following paragraphs and in more detail in Section F, Mitigation Measures and Improvement Measures.

As described in Section E.3, Cultural Resources, construction of the proposed project could result in a substantial adverse change on historic and archeological resources. The proposed project could also disturb human remains. Implementation of Mitigation Measures M-CR-1, Vibration Monitoring and Management Plan, M-CR-2, Archeological Testing, and M-CR-5, Tribal Cultural Resources Interpretive Program, would reduce the impacts to less-than-significant levels. Therefore, the proposed project would not result in a significant impact through the elimination of important examples of major periods of California history or prehistory. As described in Section E.5 Noise, Mitigation Measure M-CR-1 would also reduce potentially significant impacts from the temporary or periodic increase in vibration in the project vicinity that could otherwise impact historic buildings to less than significant.

As described in Section E.6, Air Quality, the proposed project's construction activities would generate toxic air contaminants, including diesel particulate matter, which could expose sensitive receptors to substantial pollutant concentrations. The proposed project would add a

new source of TACs within an area that already experiences poor air quality. Implementation of Mitigation Measures M-AQ-2 and M-AQ-4, which would require measures to reduce construction-related emissions and require the project's backup generator to meet higher emissions standards, would reduce the impacts to less-than-significant levels. Implementation of these measures would ensure the proposed project would not result in a significant air quality impact.

Proposed project development could also potentially encounter and damage or destroy unknown unique paleontological resources and/or unique geologic features. Implementation of Mitigation Measure M-GE-5, Paleontological Resource Accidental Discovery, would require, among other things, that the Project Sponsor hire a qualified paleontologist to train construction personnel regarding the possibility of encountering fossils and the steps that shall occur if fossils are encountered. Implementation of this measure would ensure that potential impacts related to paleontological resources would be reduced to a less-than-significant level.

Both long-term and short-term environmental effects associated with the 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 projects, compliance with adopted plans, statues, and ordinances, and currently projects.

F. MITIGATION MEASURES AND IMPROVEMENT MEASURES

The following mitigation measures have been adopted by the project sponsor and are necessary to reduce the potentially significant environmental impacts of the project to less-than-significant levels. In addition, improvement measures have also been agreed to by the project sponsor to further reduce less-than-significant impacts.

Mitigation Measure M-CR-1: Vibration Monitoring and Management Plan

The project sponsor shall retain the services of a qualified structural engineer and preservation architect that meet the Secretary of the Interior's Historic Preservation Professional Qualification Standards to conduct a Pre-Construction Assessment of the Sterling Building (1049 Market Street) and the Ede Building (1059 Market Street). Prior to any ground-disturbing activity, the Pre-Construction Assessment shall be prepared to establish a baseline, and shall contain written and/or photographic descriptions of the existing condition of the visible exteriors of the adjacent buildings and in interior locations upon permission of the owners of the adjacent properties. The Pre-Construction Assessment shall determine specific locations to be monitored and include annotated drawings of the buildings to locate accessible digital photo locations and locations of survey markers and/or other monitoring devices (e.g., to measure vibrations). The Pre-Construction Assessment shall be submitted to the Planning Department along with the Demolition and/or Site Permit Applications.

The structural engineer and/or preservation architect shall develop, and the project sponsor shall adopt, a vibration management and continuous monitoring plan to protect the Sterling Building (1049 Market Street) and the Ede Building (1059 Market Street) against damage caused by vibration or differential settlement caused by vibration during project construction activities. In this plan, the maximum vibration level not to be exceeded at each building shall be 0.2 inch per second, or a level determined by the site-specific assessment made by the structural engineer and/or preservation architect for the project. The vibration management and monitoring plan should document the criteria used in establishing the maximum vibration level for the project. The vibration monitoring plan shall include pre-construction surveys and continuous vibration monitoring throughout the duration of the major structural project activities to ensure that vibration levels do not exceed the established standard. The vibration management and monitoring plan shall be submitted to Planning Department Preservation Staff prior to issuance of any construction permits.

Should vibration levels be observed in excess of the standard, or if damage to either Sterling Building (1049 Market Street) and/or the Ede Building (1059 Market Street) is observed, construction shall be halted and alternative techniques put in practice, to the extent feasible. The structural engineer and/or historic preservation consultant shall conduct regular periodic inspections of digital photographs, survey markers, and/or other monitoring devices during ground-disturbing activity at the project site. The buildings shall be protected to prevent further damage and remediated to pre-

construction conditions as shown in the Pre-Construction Assessment with the consent of the building owner. Any remedial repairs shall not require building upgrades to comply with current San Francisco Building Code standards.

The project sponsor shall also incorporate into construction specifications for the project a requirement that the construction contractor(s) use all feasible means to avoid damage to the Sterling Building (1049 Market Street) and the Ede Building (1059 Market Street) including but not limited to, staging of equipment and materials as far as possible from historic buildings to limit damage; using techniques in demolition, excavation, shoring, and construction that create the minimum feasible vibration; maintaining a buffer zone when possible between heavy equipment and historic resource(s); enclosing construction scaffolding to avoid damage from falling objects or debris; and ensuring appropriate security to minimize risks of vandalism and fire. These construction specifications could be submitted to the Planning Department along with the Demolition and Site Permit Applications.

Mitigation Measure M-CR-3: Archeological Testing Program

Based on a reasonable presumption that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the project on buried archaeological resources. The project sponsor shall retain the services of an archaeological consultant from the rotational Planning Department Qualified Archaeological Consultants List (QACL) maintained by the Planning Department archaeologist. The archeological consultant shall undertake an archeological testing program as specified herein. In addition, the consultant shall be available to conduct an archeological monitoring and/or data recovery program if required pursuant to this measure. The archeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for 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 archeological resource, as defined in State CEQA Guidelines Section 15064.5 (a)(c).

Consultation with Descendant Communities. On discovery of an archeological site

associated with descendant Native Americans, the Overseas Chinese, or other descendant group, an appropriate representative²⁵ of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and consult with the ERO regarding appropriate archeological treatment of the site, recovered data from the

site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archaeological Resources Report (FARR) shall be provided to the representative of the descendant group.

Archeological Testing Program. The archeological consultant shall prepare and submit to the ERO for review and approval an Archeological Testing Plan (ATP) prior to the start of construction. The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that could be adversely affected by the project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine, to the extent possible, the presence or absence of archeological resources and identify and evaluate whether any archeological resource encountered on the site constitutes a historical resource under CEQA. At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to the ERO. If, based on the archeological testing program, the archeological consultant finds that significant archeological resources may be present, the ERO, in consultation with the archeological consultant, shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. No archeological data recovery shall be undertaken without the prior

approval of the ERO or the Planning Department archeologist. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the project, at the discretion of the project sponsor, either:

A) The project shall be re-designed to avoid any adverse effect on the significant archeological resource; or

B) A data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive rather than research significance and that interpretive use of the resource is feasible.

Archeological Monitoring Program. If the ERO, in consultation with the archeological consultant, determines that an Archeological Monitoring Program (AMP) shall be implemented, the AMP shall include, at a minimum, the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soil-disturbing activities commencing. The ERO, in consultation with the archeological consultant, shall determine what project activities shall be archeologically monitored. In most cases, any soil-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, drilling of piers (foundation work, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archaeological resources and their depositional context;
- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), how to identify the evidence of

the expected resource(s), and the appropriate protocol in the event of apparent discovery of an archeological resource;

- The archeological monitor(s) shall be present on the project site per a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with project archeological consultant, determined that project construction activities could have no effects on significant archeological deposits;
- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archeological deposit is encountered, all soil-disturbing activities near the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile-drilling/construction activities and equipment until the deposit is evaluated. If, in the case of pile-drilling activity (foundation work, shoring, etc.), the archeological monitor has cause to believe that the pile-drilling activity may affect an archeological resource, the pile-drilling activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit and present the findings of this assessment to the ERO;

Whether significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archeological Data Recovery Program. If archaeological data recovery is needed, an archeological data recovery program shall be conducted in accord with an Archeological Data Recovery Plan (ADRP). The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to 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 project. Destructive data recovery methods shall not be applied to portions of the archeological 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 archeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and associated or unassociated funerary objects discovered during any soil disturbing activity, shall comply with applicable state and federal laws. This treatment shall include immediate notification of the Coroner of the City and County of San Francisco and, in the event of the coroner's determination that the human remains are Native American remains, notification of the California Native American Heritage Commission (NAHC), which shall appoint a Most Likely Descendant (MLD) (PRC Section 5097.98). The archeological consultant, project sponsor, ERO, and MLD shall have up to, but not beyond, six days from the time of discovery to make reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (State CEQA Guidelines Section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing state regulations or in this mitigation measure compels the project sponsor and the ERO to accept the recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects, as specified in the treatment agreement, if such an agreement has been made, or, otherwise, as determined by the archeological consultant and the ERO.

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

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 copy, one unbound copy, and one unlocked and searchable PDF copy

of the FARR on CD, along with copies of any formal site recordation forms (California Department of Parks and Recreation [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 in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

Mitigation Measure M-CR-5: Tribal Cultural Resources Interpretive Program.

If the ERO determines that preservation-in-place of previously unidentified archeological resources pursuant to Mitigation Measure M-CR-3, Archeological Monitoring, is not a sufficient or feasible option, and if in consultation with the affiliated Native American tribal representatives, the ERO determines that the resource constitutes a TCR, the project sponsor shall implement an interpretive program of the TCR in consultation with affiliated tribal representatives. An interpretive plan produced in consultation with the ERO and affiliated tribal representatives, at a minimum, and approved by the ERO would be required to guide the interpretive program. The plan shall identify, as appropriate, proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long-term maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifacts displays and interpretation, and educational panels or other informational displays.

Mitigation Measure M-AQ-2: Construction Emissions Air Quality

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

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

Chinese, in designated queuing areas and at the construction site to remind operators of the two-minute idling limit.

- 4. The Contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.
- B. Waivers.
 - 1. The Planning Department's Environmental Review Officer or designee (ERO) may waive the alternative source of power requirement of Subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit documentation that the equipment used for onsite power generation meets the requirements of Subsection (A)(1).
 - 2. The ERO may waive the equipment requirements of Subsection (A)(1) if: a particular piece of off-road equipment with an ARB Level 3 VDECS is technically not feasible; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or, there is a compelling emergency need to use off-road equipment that is not retrofitted with an ARB Level 3 VDECS. If the ERO grants the waiver, the Contractor must use the next cleanest piece of off-road equipment, according to Table below.

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

Table – Off-Road Equipment Compliance Step-down Schedule

How to use the table: If the ERO determines that the equipment requirements cannot be met, then the project sponsor would need to meet Compliance Alternative 1. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the Contractor must meet Compliance Alternative 2. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the Contractor must meet Compliance Alternative 3.

** Alternative fuels are not a VDECS.

- C. Construction Emissions Minimization Plan. Before starting on-site construction activities, the Contractor shall submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and approval. The Plan shall state, in reasonable detail, how the Contractor will meet the requirements of Section A.
 - 1. The Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine

serial number, and expected fuel usage and hours of operation. For VDECS installed, the description may include: technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date and hour meter reading on installation date. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel being used.

- 2. The project sponsor shall ensure that all applicable requirements of the Plan have been incorporated into the contract specifications. The Plan shall include a certification statement that the Contractor agrees to comply fully with the Plan.
- 3. The Contractor shall make the Plan available to the public for review on-site during working hours. The Contractor shall post at the construction site a legible and visible sign summarizing the Plan. The sign shall also state that the public may ask to inspect the Plan for the project at any time during working hours and shall explain how to request to inspect the Plan. The Contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.
- D. *Monitoring*. After start of Construction Activities, the Contractor shall submit quarterly reports to the ERO documenting compliance with the Plan. After completion of construction activities and prior to receiving a final certificate of occupancy, the project sponsor shall submit to the ERO a final report summarizing construction activities, including the start and end dates and duration of each construction phase, and the specific information required in the Plan.

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

The project sponsor shall ensure that the backup diesel generator meet or exceed one of the following emission standards for particulate matter: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California Air Resources Board (ARB) Level 3 Verified Diesel Emissions Control Strategy (VDECS). A non-verified diesel emission control strategy may be used if the filter has the same particulate matter reduction as the identical ARB verified model and if the Bay Area Air Quality Management District (BAAQMD) approves of its use. The project sponsor shall submit documentation of compliance with BAAQMD New Source Review permitting process (Regulation 2, Rule 2, and Regulation 2, Rule 5) and the emission standard requirement of this mitigation measure to the Planning Department for review and approval prior to issuance of a permit for a backup diesel generator from any City agency.

Mitigation Measure M-GE-6: Paleontological Resource Accidental Discovery

Based on the potential for paleontological resources to be present within the project site at excavation depths within the Dune Sand, Marsh Deposits, as well as the underlying Franciscan Complex bedrock, the following measures shall be undertaken to avoid any potentially significant adverse effect from the project on paleontological resources.

Before the start of any earthmoving activities, the project sponsor shall retain a qualified paleontologist, as defined by the Society of Vertebrate Paleontology (SVP), who is experienced in teaching non-specialists. The qualified paleontologist shall train all construction personnel who are involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils that are likely to be seen during construction, and proper notification procedures should fossils be encountered. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying a qualified paleontologist, who shall evaluate the significance.

If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work near the find and notify the project sponsor and the San Francisco Planning Department. Construction work in the affected areas shall remain stopped or be diverted to allow recovery of fossil remains in a timely manner. The project sponsor shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with SVP guidelines.¹³⁸ The recovery plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the City of San Francisco (City) to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered. The City shall be responsible for ensuring that the monitor's recommendations regarding treatment and reporting are implemented.

Improvement Measures

Improvement Measure I-TR-2a: Construction Truck Deliveries During Off-Peak Periods. As required, the project sponsor and construction contractor(s) could meet with the Sustainable Streets Division of the SFMTA, the Fire Department, Muni, and the Planning Department to determine feasible measures to reduce traffic congestion, including potential transit disruption and pedestrian circulation impacts during construction of the project. Feasible measures could include restricting truck movements to the hours of 9:00 a.m. to 3:30 p.m. or other times dependent upon approval by SFMTA. To minimize cumulative traffic impacts due to project construction, the Project Sponsor could coordinate with construction contractors for any concurrent nearby projects that are planned for construction or which later become known.

Improvement Measure I-TR-2b: Construction Management Plan. To reduce potential conflicts between construction activities and pedestrians, bicyclists, transit, and autos

¹³⁸ Society of Vertebrate Paleontology. 1996. *Conditions of Receivership for Paleontologic Salvage Collections*. Final draft. Society of Vertebrate Paleontology News Bulletin 166:31-32.

during construction activities, the project sponsors could require construction contractor(s) to prepare a traffic control plan for major phases of construction (e.g., demolition and grading, construction, or renovation of individual buildings). The project sponsors and their construction contractor(s) could meet with relevant City agencies to coordinate feasible measures to reduce traffic congestion, including temporary transit stop relocations and other measures to reduce potential traffic and transit disruption and pedestrian circulation effects during major phases of construction. For any work within the public right-of-way, the contractor could be required to comply with San Francisco's Regulations for Working in San Francisco Streets (i.e., the "Blue Book"), which establish rules and permit requirements so that construction activities can be done safely and with the least possible interference with pedestrians, bicyclists, transit, and vehicular traffic.

In the event that the construction timeframes of the major phases and other development projects adjacent to the project site overlap, the project sponsors could coordinate with City Agencies through the Transportation Advisory Staff Committee and the adjacent developers to minimize the severity of any disruption to adjacent land uses and transportation facilities from overlapping construction transportation impacts. The project sponsors, in conjunction with the adjacent developer(s), could propose a construction traffic control plan that includes measures to reduce potential construction traffic conflicts, such as coordinated material drop offs, collective worker parking, and transit to job site and other measures.

In addition, the project sponsor could include the following in the Construction Management Plan:

- Carpool and Transit Access for Construction Workers As an improvement measure to minimize parking demand and vehicle trips associated with construction workers, the construction contractor could include methods to encourage carpooling and transit use to the project site by construction workers in the Construction Management Plan contracts.
- Project Construction Updates As an improvement measure to minimize construction impacts on nearby businesses, the project sponsor could provide regularly-updated information (typically in the form of a website, news articles, on-site posting, etc.) regarding project construction and schedule, as well as contact information for specific construction inquiries or concerns.

Improvement Measure I-TR-2c: Coordination of Large Deliveries and Trash Pick-up. Delivery trucks with lengths exceeding 40 feet could be scheduled and coordinated through hotel management and the retail tenant and prohibited from entering Stevenson Street. Such large delivery trucks could be directed to use the existing on-street loading spaces located on Market Street approximately 65 feet east of the project site.

To reduce the potential for parking of delivery vehicles within the travel lane adjacent to the curb lane on Stevenson Street or Market Street (in the event that the existing on-

street loading spaces are occupied), appropriate delivery procedures could be enforced to avoid any blockages of Stevenson Street or Market Street over an extended period of time and reduce any potential conflicts between deliveries and pedestrians walking along Stevenson Street or Market Street. Curb parking on Stevenson Street or Market Street could be reserved through SFMTA or by directly contacting the local 311 service.

The building manager could notify the hotel and retail tenants of garbage pick-up times and locations so that they are efficiently coordinated and result in minimum conflict with other traffic near the project.

G. PUBLIC NOTICE AND COMMENT

A "Notification of Project Receiving Environmental Review" was mailed on April 28, 2015 to owners of properties within 300 feet of the project site, adjacent occupants, and community organizations. No comments were received.

H. COMMENTS RECEIVED IN RESPONSE TO THE PMND

<u>A "Notice of Availability of and Intent to Adopt a Mitigated Negative Declaration" was</u> mailed on October 18, 2017, to owners of properties within 300 feet of the project site, adjacent occupants, and neighborhood groups. One public comment was received from the applicant's attorney that the bay windows on Stevenson Street were revised such that a variance is no longer needed. Page 4 and page 14 of the MND have been revised to remove the reference to the variance requirement.

H.I. DETERMINATION

On the basis of this Initial Study:

- **O** I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- [8J I find that although the 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.
- **O** I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- **O** I find that the 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.
- **O** I find that although the 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 project, no further environmental documentation is required.

DATE October 18,2017



Lisa Gibson Environmental Review Officer for John Rahaim Director of Planning

H.J INITIAL STUDY PREPARERS

Planning Department, City and County of San Francisco Environmental Planning Division 165 Mission Street, Suite 400 San Francisco, CA 94103 Environmental Review Officer: Lisa Gibson Senior Environmental Planner: Rick Cooper Environmental Planner: Justin Horner Environmental Planner (Transportation): Chris Espiritu Preservation Planner: Pilar LaValley

Environmental Consultants

Panorama Environmental, Inc. 1 Embarcadero Center, Suite 740 San Francisco, CA 94111 Project Manager: Tania Treis Deputy Project Manager: Kelly Beggs Environmental Planner: Caitlin Gilleran, Okorie Puryear Technical Staff: Corey Fong

Project Sponsor

Paradigm Hotels Group 150 West Harris Avenue South San Francisco, CA, 94080 Jay Singh