



## MITIGATED NEGATIVE DECLARATION

*PMND Date:* April 28, 2021; amended on July 29, 2021 (amendments to the initial study are shown as deletions in ~~strike through~~ and additions in double underline)

*Case No.:* **2019-017481ENV**

*Project Address:* **530 Sansome Street**

*Zoning:* C-3-O (Downtown Office) Use District

*Height/Bulk:* 200-S Special Height and Bulk District

*Block/Lot:* 0206/013, 014, 017

*Lot Size:* 17,733 square feet

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### Project Description

EQX Jackson SQ Holdco LLC, the San Francisco Bureau of Real Estate, and the San Francisco Fire Department (project sponsors) propose to redevelop the 17,733-square-foot project site located at the southeast corner of Sansome and Washington streets. The project site, located within the Financial District neighborhood, is developed with three buildings: a vacant three-story office building at 425 Washington Street, a vacant two-story commercial building at 439–445 Washington Street, and the two-story-with-mezzanine San Francisco Fire Station 13 building at 530 Sansome Street.

The proposed 530 Sansome Street project (proposed project) would involve demolition of the existing buildings and construction of a 19-story building and a four-story replacement fire station, with three below-grade levels under both buildings. The 19-story, approximately 218-foot-tall (236 feet total, including rooftop mechanical equipment) building would provide approximately 6,470 square feet of retail/restaurant space on the first and second floors; approximately 40,490 square feet of office space on the first, second, and sixth through eighth floors; approximately 35,230 square feet of fitness center space on the first through fifth floors; and approximately 146,065 square feet of hotel space that would accommodate 200 guest rooms. At the fourth floor, the 19-story building would cantilever over the third floor of the replacement fire station. The 19-story building would include outdoor terrace space on the east and west ends of the 19th floor. On the eastern portion of the project site the four story, approximately 44-foot-tall (53 feet total, including rooftop mechanical equipment) replacement fire station would include approximately 20,240 square feet of space. The three below-grade levels would provide 48 vehicle parking spaces, one loading space, two vehicle service spaces, 22 class 1 bicycle parking spaces, lockers and showers, and utility rooms for the fire station,

hotel, and retail/restaurant uses. The proposed project would convert the western portion of Merchant Street in front of the project site into a shared street/living alley with approximately 4,810 square feet of privately owned public open space (POPOS). An additional 26 class 2 bicycle parking spaces would be located on streets adjacent to the project site, subject to San Francisco Municipal Transportation Agency (SFMTA) and San Francisco Public Works approval.<sup>1</sup>

The sponsors also propose a residential variant to the proposed project, which would construct 256 residential units instead of the hotel, office, fitness center, and retail/restaurant uses in the approximately 218-foot-tall building. Under the residential variant, 6,384 square feet of common open space would be located on the 21st floor of the building in the form of a solarium. The three additional stories for the residential variant is due to the reduced floor-to-floor heights. At the fourth floor, the 21-story building would cantilever over the third floor of the replacement fire station. The four-story replacement fire station building would remain the same for the residential variant. The three below-grade levels for the residential variant would provide 82 vehicle parking spaces, one loading space, two vehicle service spaces, 143 class 1 bicycle parking spaces, and utility rooms for the fire station. An additional 19 class 2 bicycle parking spaces would be located on streets adjacent to the project site, subject to SFMTA and San Francisco Public Works approval. Consistent with the proposed project, the residential variant would convert Merchant Street into a shared street/living alley.

## Finding

This project could not have a significant effect on the environment. This finding is based upon the criteria of the Guidelines of the State Secretary for Resources, sections 15064 (Determining Significant Effect), 15065 (Mandatory Findings of Significance), and 15070 (Decision to Prepare a Negative Declaration), and the following reasons as documented in the initial study for the project, which is attached. Mitigation measures are included in this project to avoid potentially significant effects (see Section F, Mitigation Measures, pp. 182–196).

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

  
\_\_\_\_\_  
Lisa Gibson  
Environmental Review Officer

July 29, 2021  
\_\_\_\_\_  
Date of Adoption of  
Final Mitigated Negative Declaration

cc: James Abrams, J. Abrams Law, P.C.  
Nicholas Foster, Current Planning Division  
Supervisor Aaron Peskin, District 3

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<sup>1</sup> The remainder of the four required class 2 bicycle parking spaces would be provided through a Zoning Administrator variance and in-lieu fee payment pursuant to planning code sections 305 and 307(k)(2)(E).

# INITIAL STUDY

## 530 SANSOME STREET PROJECT

### PLANNING DEPARTMENT CASE NO. 2019-017481ENV

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  - A2 425 and 439–445 Washington Street Preservation Team Review Form
  - A3 530 Sansome Street Historic Resource Evaluation Report
  - A4 530 Sansome Street Historic Resource Evaluation Response Part I
  - A5 530 Sansome Street Historic Resource Evaluation Response Part II
- B Transportation Study
- C Noise and Vibration Technical Memorandum
- D Air Quality Technical Memorandum
- E Wind Study
- F Shadow Report

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## Acronyms and Abbreviations

Acronym/Abbreviation	Definition
$\mu\text{g}/\text{m}^3$	microgram per cubic meter
ABAG	Association of Bay Area Governments
air district	Bay Area Air Quality Management District
AC Transit	Alameda-Contra Costa Transit
ADA	Americans with Disabilities Act
BART	Bay Area Rapid Transit
bgs	below ground surface
building department	San Francisco Department of Building Inspection
California register	California Register of Historical Resources
Cal/OSHA	State of California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO	carbon monoxide
dBA	A-weighted decibel
DepCAP	San Francisco Fire Department Climate Action Plan
EPA	United States Environmental Protection Agency
ERO	Environmental Review Officer
FAR	floor area ratio
fire department	San Francisco Fire Department
FTA	Federal Transit Administration
GHG	greenhouse gases
health department	San Francisco Department of Public Health
HRER	Historic Resources Evaluation Response
HRPIP	Historic Resources Public Interpretive Plan
Ldn	day-night sound level
Leq	equivalent sound level
MBTA	Migratory Bird Treaty Act
mph	miles per hour
MTC	Metropolitan Transportation Commission
Muni	San Francisco Municipal Railway
NO <sub>2</sub>	nitrogen dioxide

Acronym/Abbreviation	Definition
NOx	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration
parks department	San Francisco Recreation and Parks Department
PCB	polychlorinated biphenyls
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter
PM <sub>10</sub>	particulate matter less than 10 microns in diameter
ppm	parts per million
PPV	peak particle velocity
POPOS	privately owned public open space
ROG	reactive organic gases
SamTrans	San Mateo County Transit
SB	Senate Bill
sf	square feet
SFFD	San Francisco Fire Department
SFMTA	San Francisco Municipal Transportation Agency
SFPUC	San Francisco Public Utilities Commission
SO <sub>2</sub>	sulfur dioxide
SUD	Special Use District
TAZ	transportation analysis zone
TDR	transferable development rights
TNC	transportation network company
TPH-d	Total petroleum hydrocarbons as diesel
TPH-g	Total petroleum hydrocarbons as gasoline
transportation authority	San Francisco County Transportation Authority
UST	underground storage tank
VMT	vehicle miles traveled



## A. Project Description

### Project Location

The 17,733-square-foot project site consists of three lots (Assessor's Block 0206, Lots 013, 014, and 017) located on the western portion of the block bounded by Sansome Street to the west, Washington Street to the north, Battery Street to the east, and Merchant Street to the south (see **Figure 1**, p. 2). The project site is located in the Financial District neighborhood of San Francisco. Three buildings occupy the project site: a vacant three-story office building at 425 Washington Street, a vacant two-story commercial building at 439–445 Washington Street, and the two-story Fire Station 13 building at 530 Sansome Street. The project site is in the C-3-O Downtown-Office district and a 200-S Height and Bulk district.

### Project Characteristics

EQX Jackson SQ Holdco LLC, the San Francisco Bureau of Real Estate, and the San Francisco Fire Department (project sponsor) propose to redevelop the 17,733-square-foot project site located at the southeast corner of Sansome and Washington streets.

The proposed 530 Sansome Street project (proposed project) would involve demolition of the existing 17,800-square-foot, three-story office building; the 12,862-square-foot, two-story commercial building; and the 18,626-square-foot fire station. During project construction Fire Station 13 operations would relocate to existing San Francisco Fire Department (fire department) facilities as close to the project site as possible. No interruption of fire department service would occur. The proposed project would construct a 19-story building and a four-story replacement fire station, with three below-grade levels under both buildings. The 19-story, approximately 218 foot-tall building (236 feet total, including rooftop mechanical equipment) would provide approximately 6,480 square feet of retail/restaurant space on the first and second floors; approximately 40,490 square feet of office space on the first, second, and sixth through eighth floors; approximately 35,230 square feet of fitness center space on the first through fifth floors; and approximately 146,065 square feet of hotel space that would accommodate about 200 guest rooms. The replacement fire station would include approximately 20,240 square feet in a four-story, approximately 44-foot-tall building (53 feet total, including rooftop mechanical equipment) on the eastern portion of the project site. The three below-grade levels would provide 48 accessory vehicle parking spaces (30 for the commercial uses and 18 for fire department personnel and department vehicles), one loading space, two vehicle service spaces, 22 class 1 bicycle parking spaces,<sup>1</sup> and utility rooms for the fire station, hotel, and retail/restaurant uses in approximately 52,650 square feet. The proposed project would provide 26 class 2 bicycle parking spaces on streets adjacent to the project site, subject to San Francisco Municipal Transportation Agency (SFMTA) and San Francisco Public Works approval.

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<sup>1</sup> Per San Francisco Planning Code section 155.1, Bicycle Parking Definitions and Standards, class 1 bicycle parking facilities are spaces in secure, weather-protected facilities intended for use as long-term, overnight, and workday bicycle storage by dwelling unit residents, non-residential occupants, and employees. Class 2 spaces are bicycle racks located in publicly accessible, highly visible locations intended for transient or short-term use by visitors, guests, and patrons to the building or use.



SOURCE: San Francisco Planning Department, 2020; ESA, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 1**  
**PROJECT LOCATION**

The project would remove existing on-street parking along both the northern and southern sides of Washington Street between Sansome and Battery streets. On-street parking along the southern side of Washington Street would be removed to provide a freight loading zone, a loading dock, and egress for the fire station. On-street parking would be removed along the northern edge of Washington Street fronting the U.S. Citizenship and Immigration Services building in order to provide adequate space for fire truck movement. The proposed project also would convert a portion of Merchant Street into a shared street/living alley<sup>2</sup> with approximately 4,810 square feet of privately owned public open space (POPOS) (see **Figure 2**).

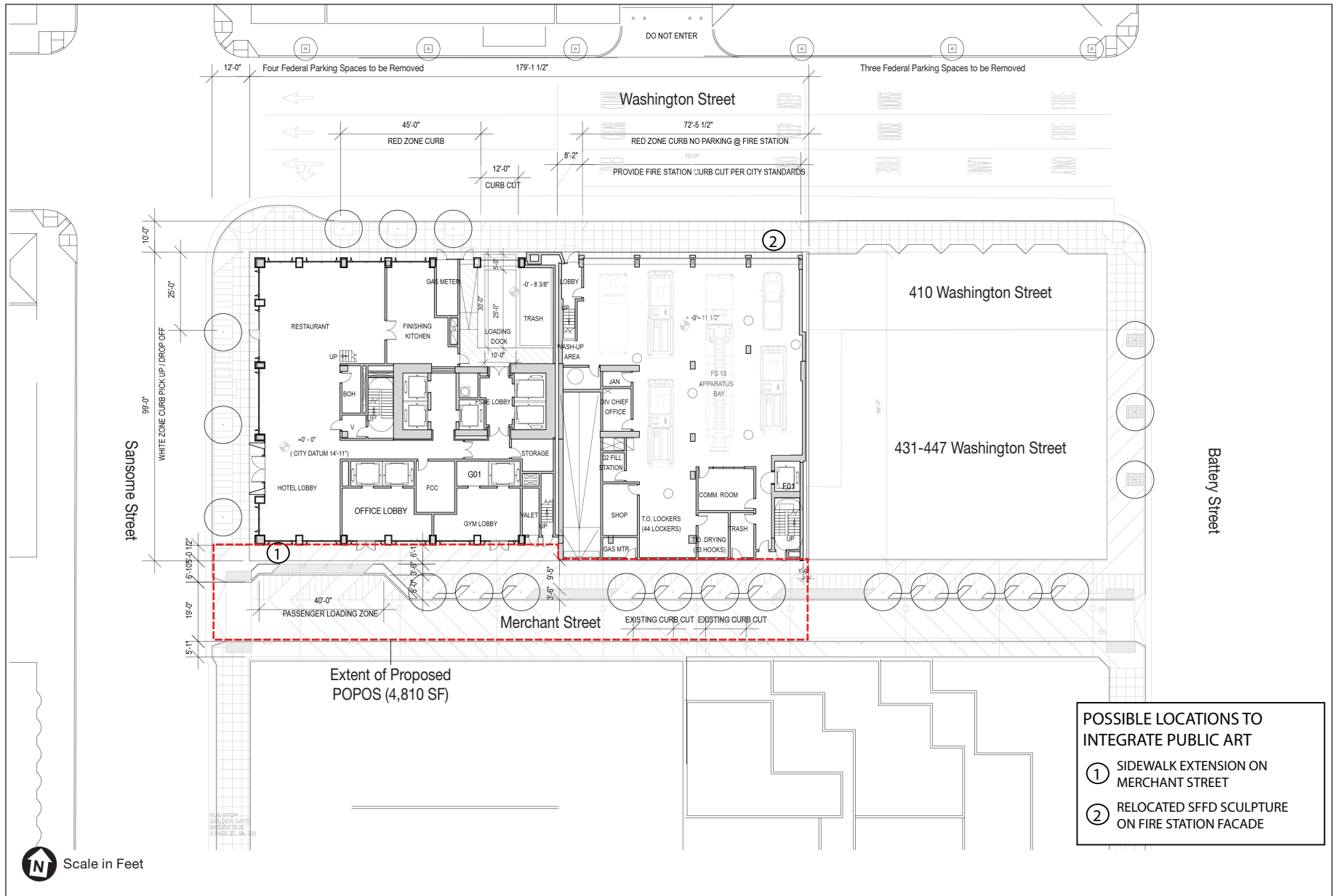
On the north façade of 530 Sansome Street is a wall-mounted sculpture by artist Henri Marie-Rose named *Untitled*. The three-dimensional copper sculpture depicts firefighters with a hose battling a blaze next to the letters “SFFD.” The sculpture *Untitled*, currently mounted on the existing fire station’s north façade on Washington Street, would be integrated into the project and relocated to either Merchant Street or the replacement fire station’s north façade on Washington Street (see Figure 2). At the fourth floor, the 19-story building would cantilever over the third floor of the replacement fire station, and outdoor terrace space would be located on the east and west ends of the 19th floor (see **Figure 3**, p. 5, and **Figure 4**, p. 6). **Figure 5** through **Figure 12**, pp. 7–14, show representative floor plans for the proposed project. **Table 1**, p. 15, summarizes the proposed project characteristics.

## REPLACEMENT FIRE STATION

The proposed project would demolish the existing Fire Station 13 and construct a replacement fire station on the eastern portion of the project site. The replacement fire station would not result in an increase in staff or operations but would result in an adequately sized state of the art station with built-in training features based on current operations. The proposed 44-foot-tall, four-story fire station would provide 20,240 square feet on floors 1 through 4. Floor 1 would contain gear and equipment rooms, firetruck parking bays, and office space. A mezzanine on the second floor would contain a kitchen and dining area, as well as a day room and small terrace. The third floor would contain additional office space, locker and laundry rooms, and a dorm room. The fourth floor would contain a fitness room and library. There would be no regular access to the fourth floor rooftop area with the exception of occasional use for fire department ladder training from Washington Street. An additional 490 square feet of equipment storage space and 7,710 square feet reserved for 18 fire department parking spaces would be located on the third basement level. Firetrucks would access the station on Washington Street and a vehicular ramp to the underground parking garage in the below-grade basement would be provided on Merchant Street for fire department staff personal vehicles and specialized small vehicles (see **Figure 13**, p. 16). Firetrucks responding to calls would either turn left on Washington Street and follow the westbound, one-way flow of traffic or turn right into a dedicated contraflow lane providing firetrucks access to Battery Street. Firetrucks returning to quarters would approach their bays from the east and with the flow of one-way traffic.

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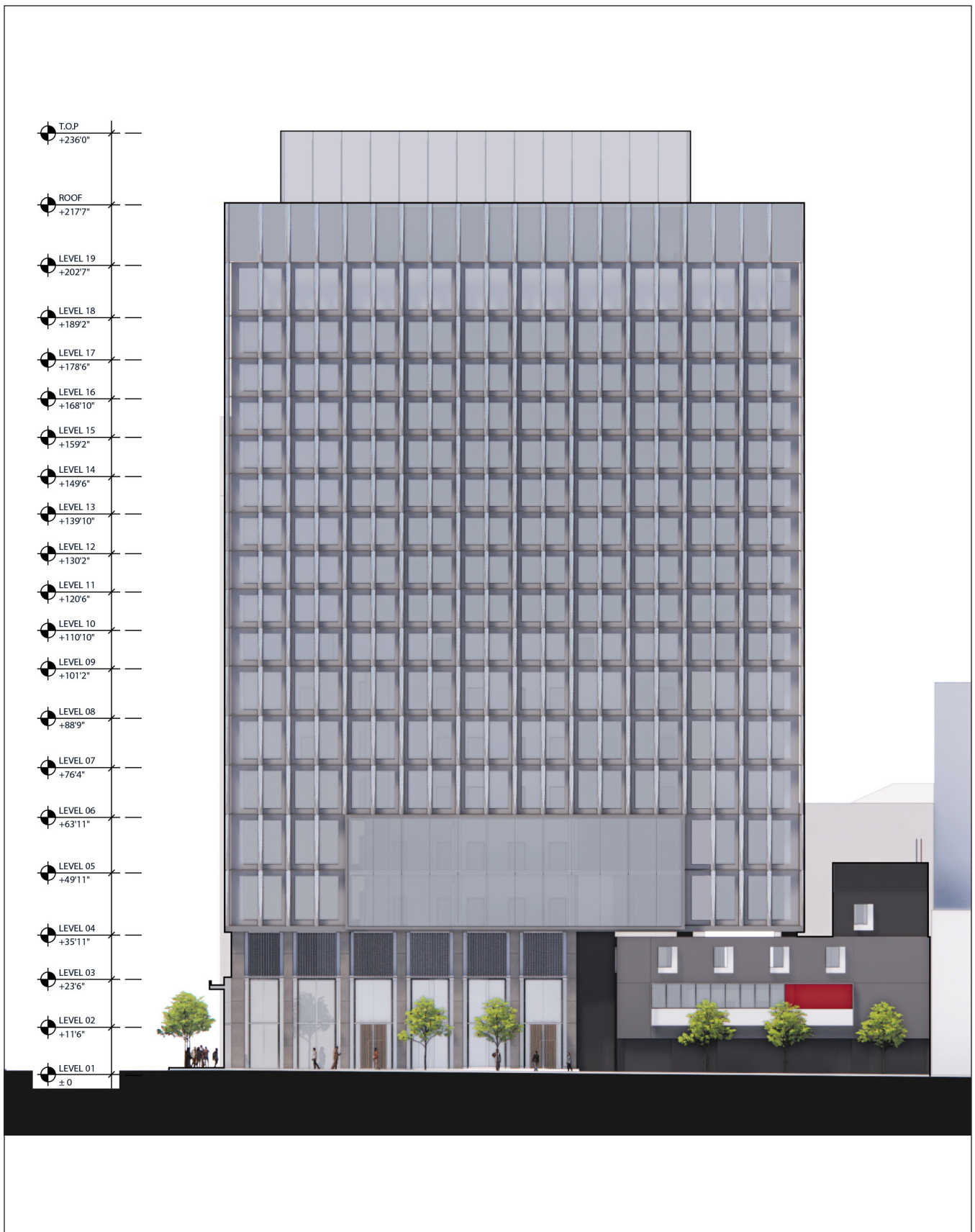
<sup>2</sup> A shared street/living alley is a narrow, low-volume traffic street designed to prioritize pedestrians, bicyclists, and provides space for social uses. Vehicles may access but with reduced speeds. The 447 Battery Street project (Case No. 2014-1036E), if approved by the city, would be responsible for constructing the eastern portion of Merchant Street.



SOURCE: Skidmore, Owings & Merrill LLP, 2021, modified by ESA

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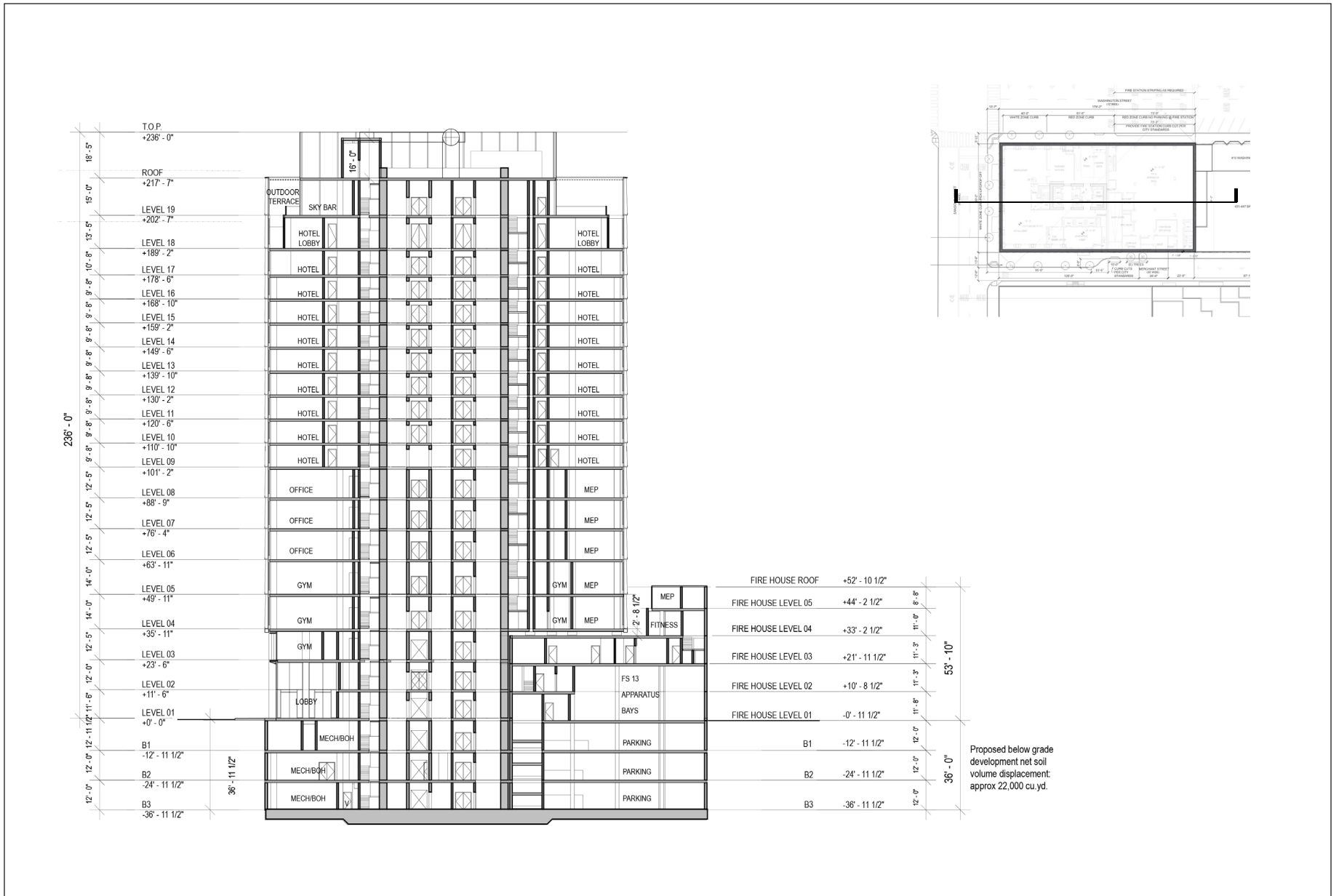
**FIGURE 2**  
**PROPOSED SITE PLAN**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

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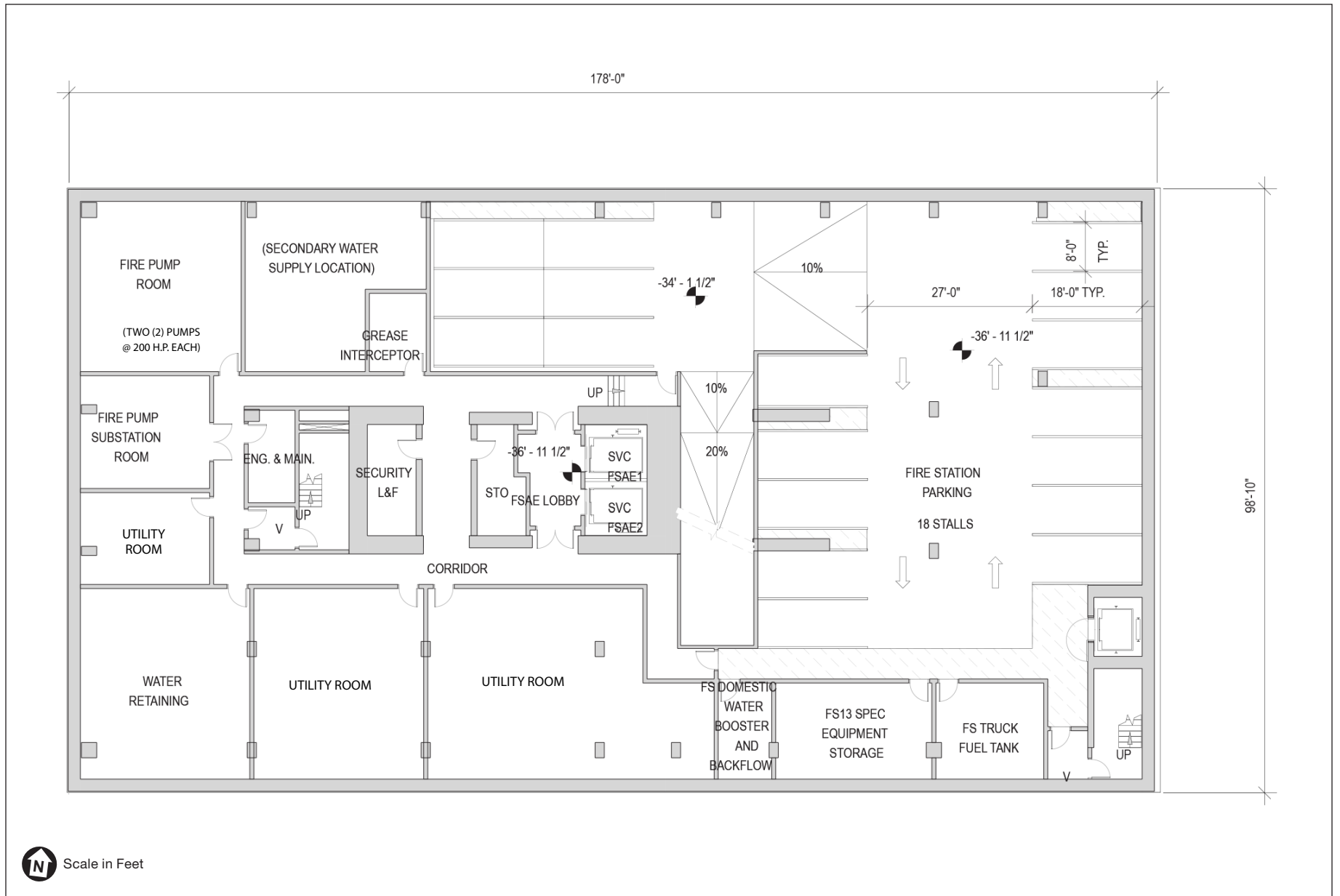
**FIGURE 3**  
**SOUTH ELEVATION**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

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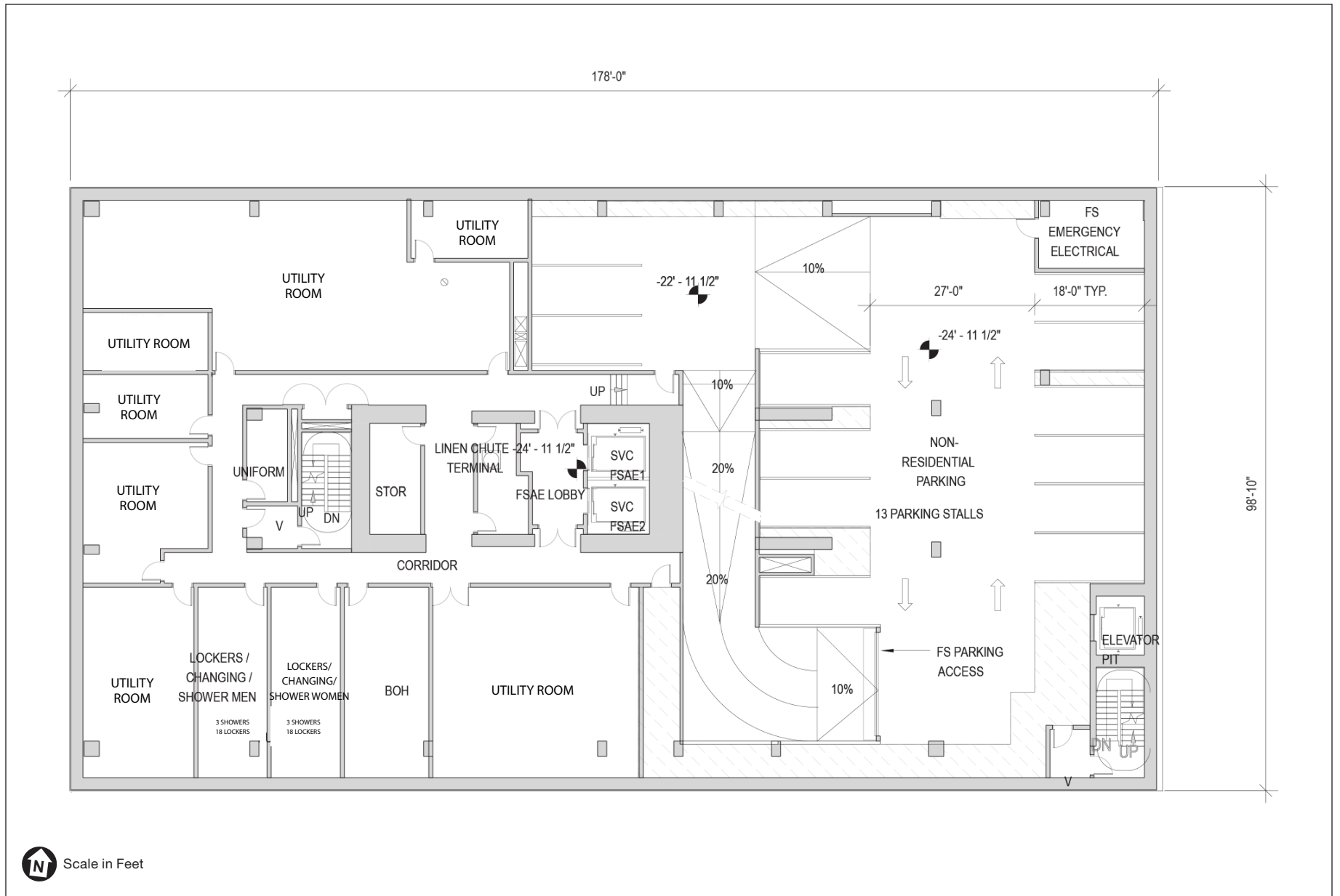
**FIGURE 4**  
**EAST/WEST BUILDING SECTION**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

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**FIGURE 5**  
**BASEMENT LEVEL 3 FLOOR PLAN**

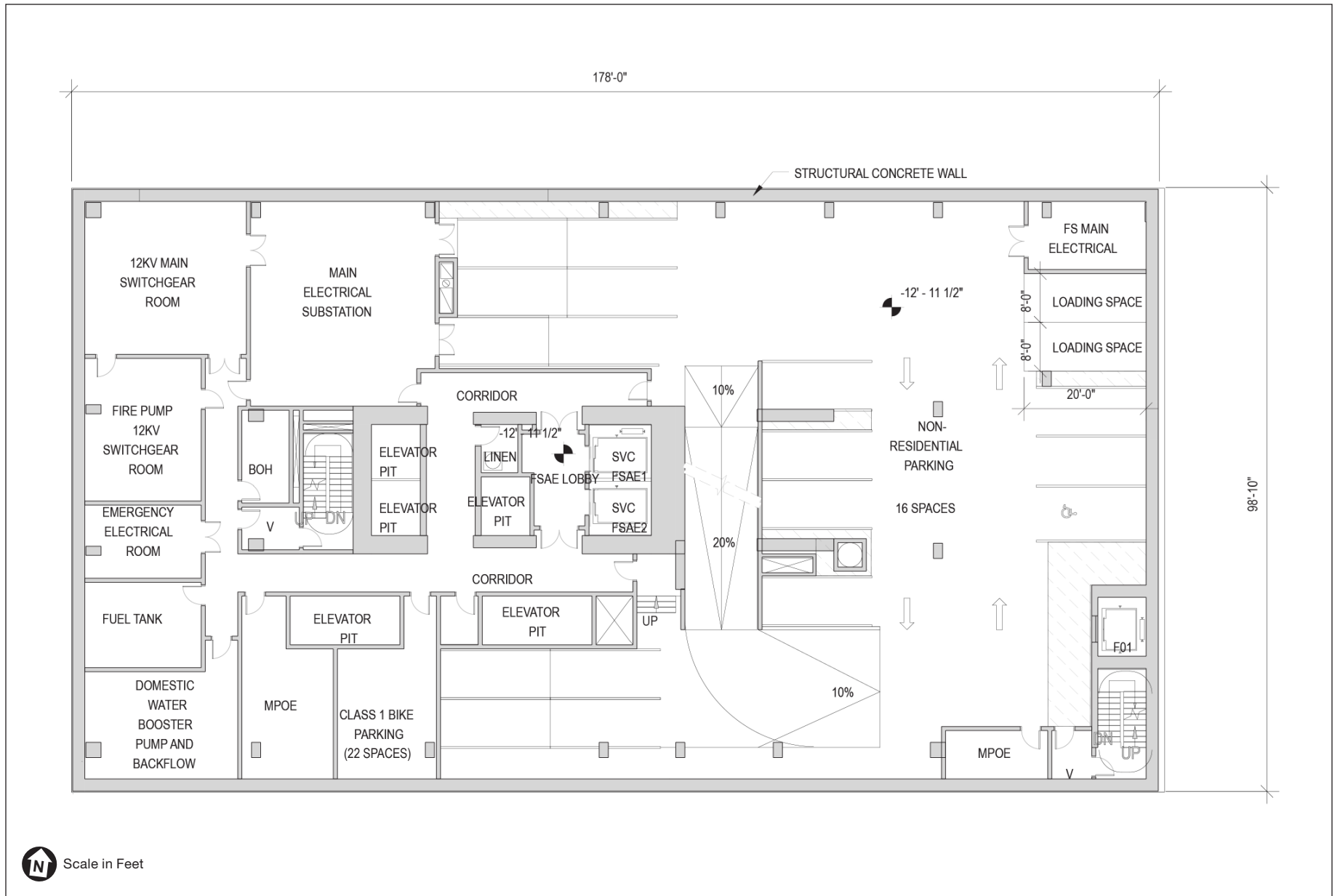


SOURCE: Skidmore, Owings & Merrill LLP, 2021

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**FIGURE 6**  
**BASEMENT LEVEL 2 FLOOR PLAN**

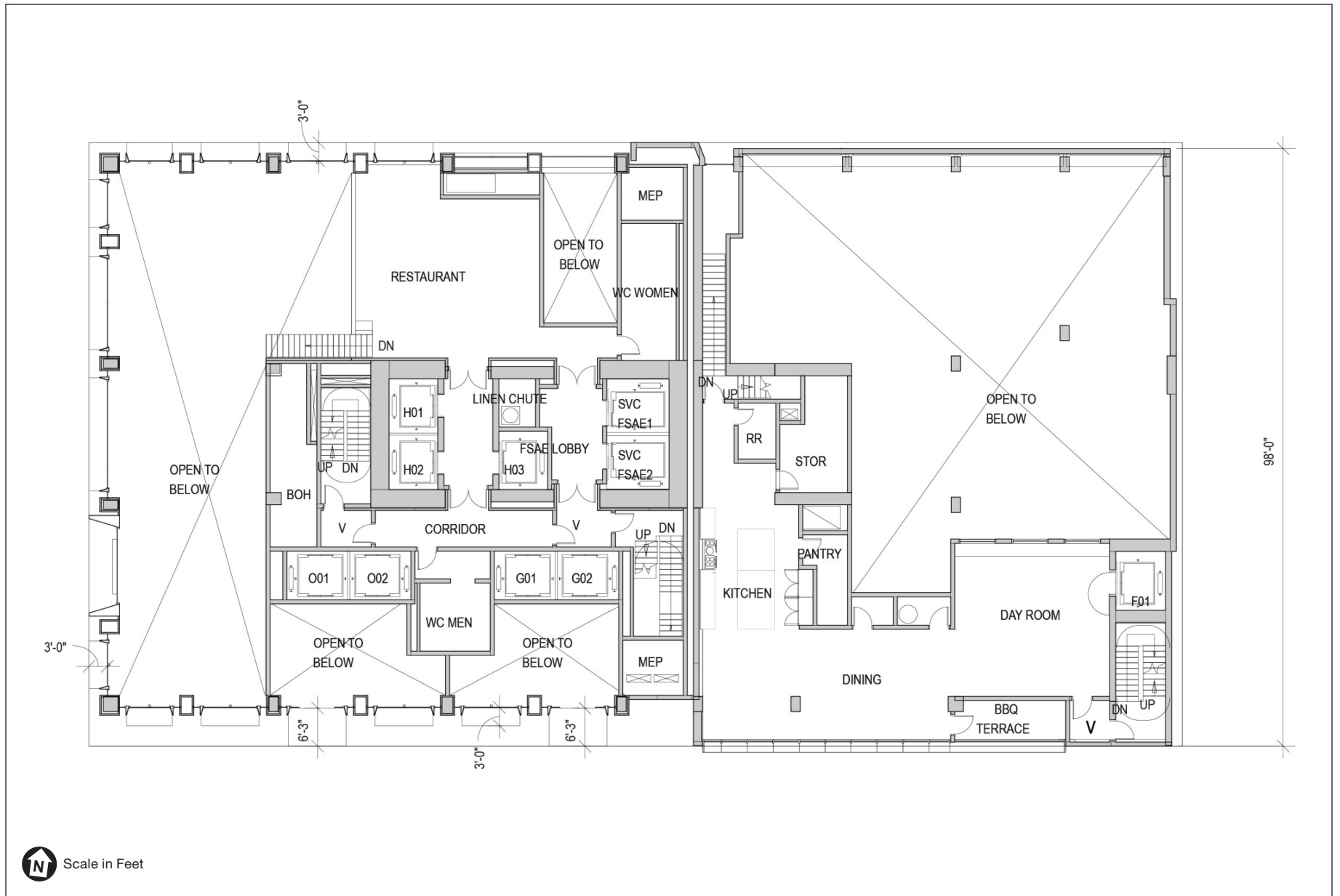




SOURCE: Skidmore, Owings & Merrill LLP, 2021

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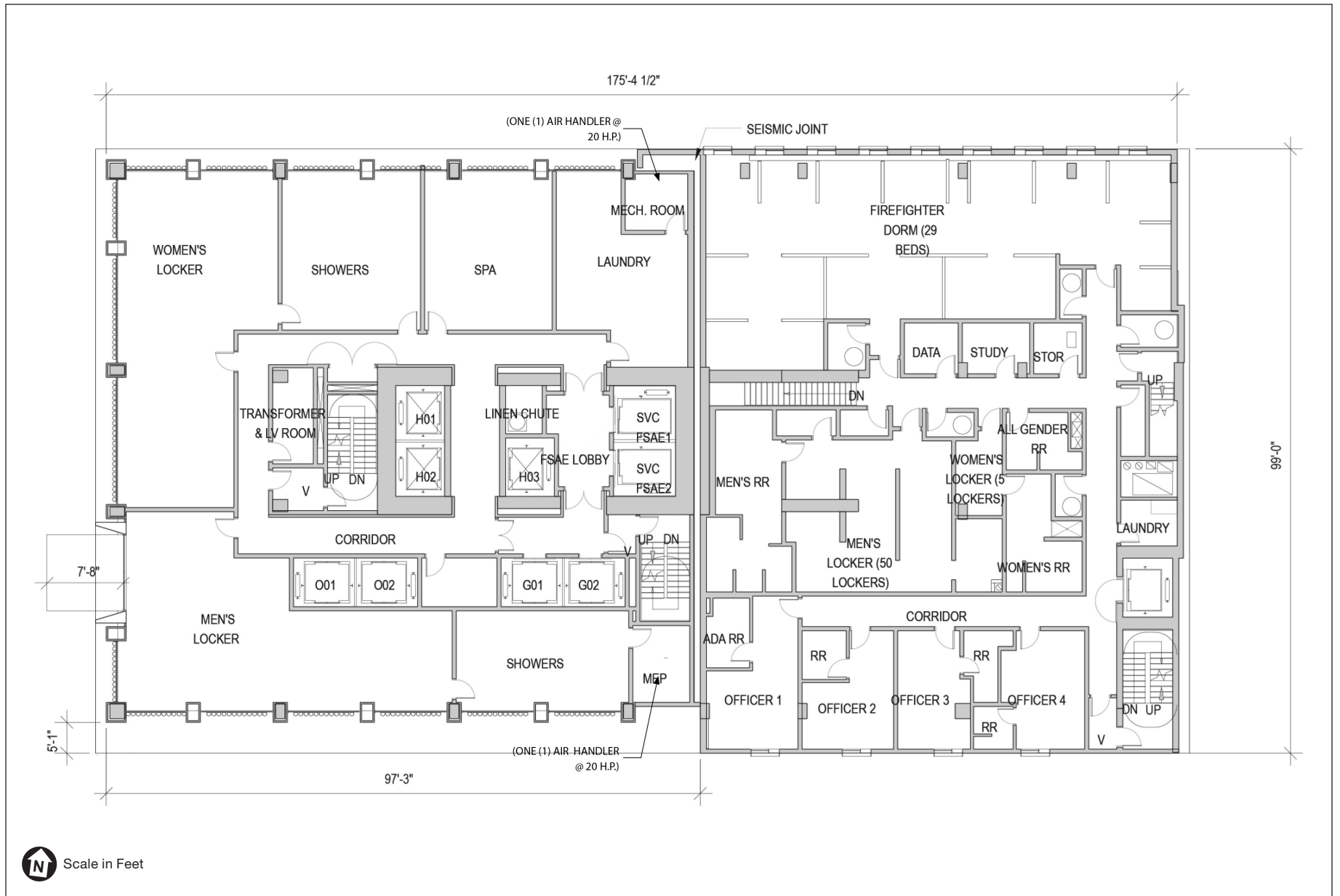
**FIGURE 7**  
**BASEMENT LEVEL 1 FLOOR PLAN**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

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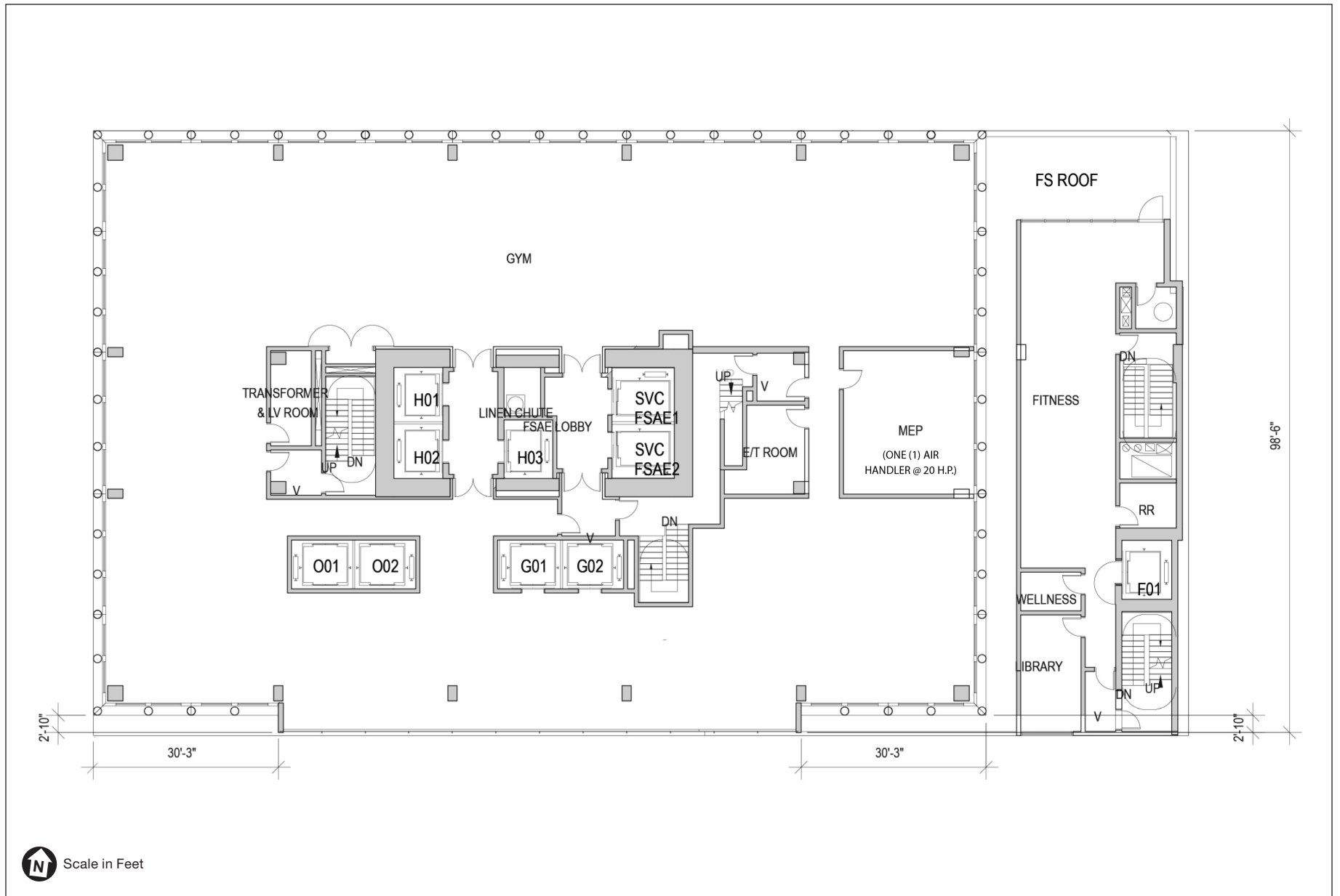
**FIGURE 8**  
**LEVEL 2 FLOOR PLAN**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

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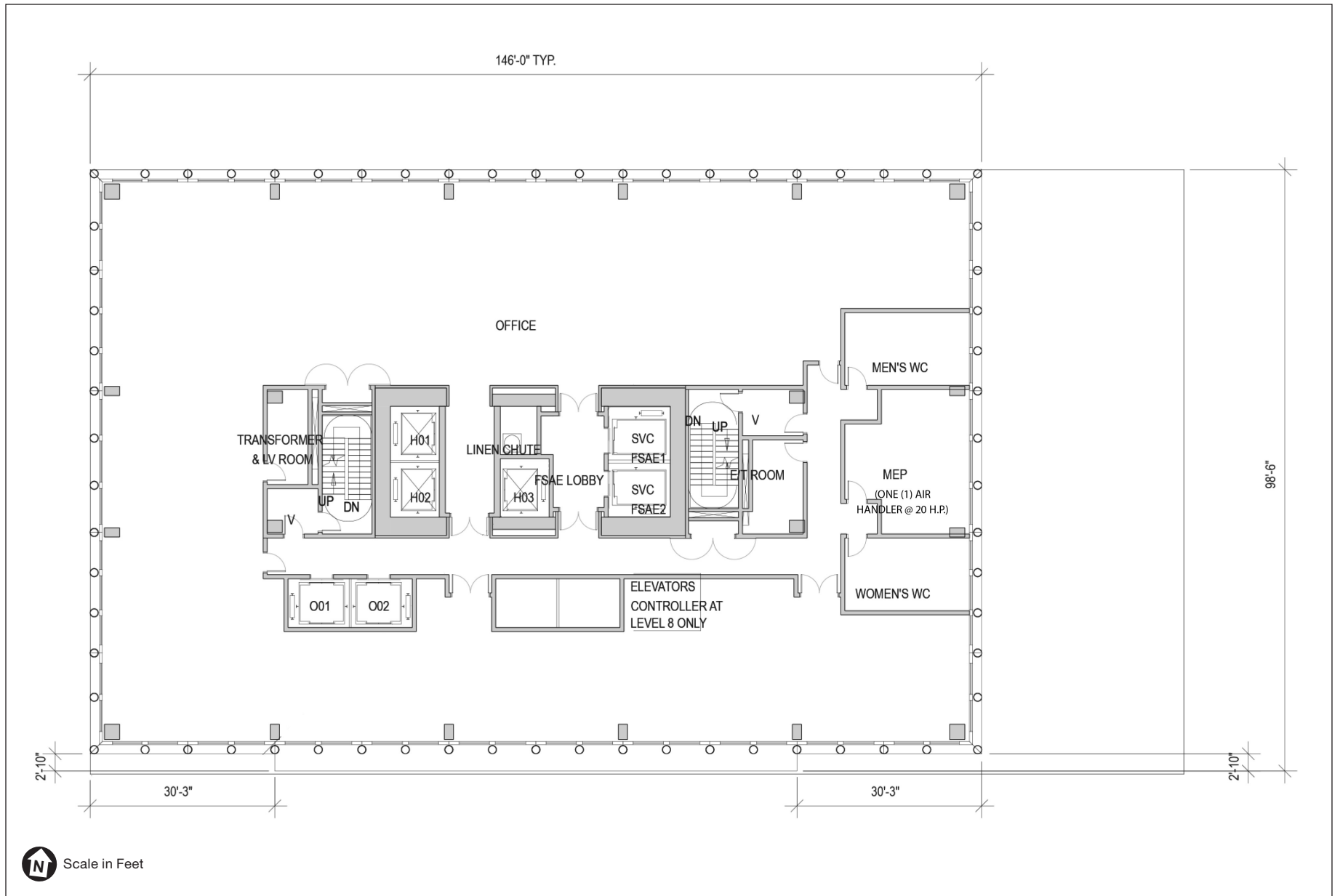
**FIGURE 9**  
**LEVEL 3 FLOOR PLAN**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

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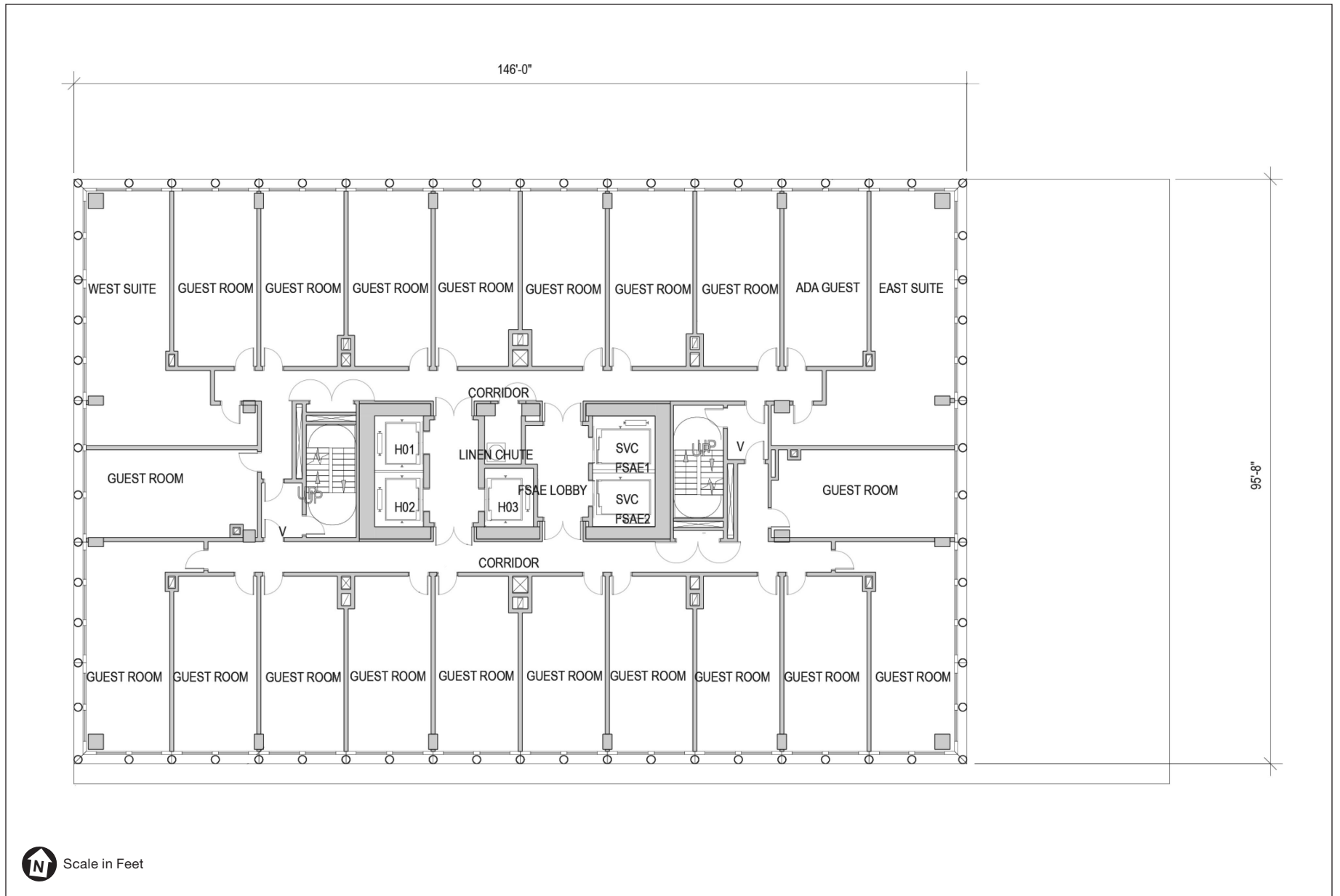
**FIGURE 10**  
**LEVEL 4 FLOOR PLAN**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

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**FIGURE 11**  
**LEVEL 6 FLOOR PLAN - TYPICAL OFFICE LEVEL**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

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**FIGURE 12**  
**LEVEL 10 FLOOR PLAN - TYPICAL HOTEL LEVEL**

**Table 1 Proposed Project Characteristics**

Project Component	Existing (sf) <sup>a</sup>	Proposed (sf)	Net New (sf)
<b>FIRE STATION 13</b>			
Height of Building	35 feet	44 feet	9 feet
Number of Stories	2	4	2
Above Grade	18,625	20,240 (Floors 1–4)	1,615
Below Grade	8,850	8,200	-650
Parking Spaces <sup>b</sup>	21	18 (Basement Level 3)	-3
Class 1 Bicycle Parking Spaces <sup>c</sup>	0	4	4
Class 2 Bicycle Parking Spaces <sup>c</sup>	0	2	2
<b>TOTAL</b>	<b>27,475</b>	<b>28,440</b>	<b>965</b>
<b>19-STORY MIXED USE HOTEL BUILDING</b>			
Height of Building	44	218 feet	174
Number of Stories	2–3	19	16–17
Hotel	—	146,065 (200 guest rooms on Floors 9–18)	146,065
Office	20,720	40,490 (Floors 6–8)	19,770
Fitness Center	—	35,230 (Floors 1–5)	35,230
Retail/Restaurant	—	6,470 (Floors 1–2)	6,470
Below Grade	8,750	44,450	35,700
Parking Spaces	21	30 (Basement Levels 1 and 2)	9
Loading Spaces <sup>d</sup>	0	3 (one loading space on Floor 1; 2 service vehicles spaces on Basement Level 1)	3
Class 1 Bicycle Parking Spaces <sup>c</sup>	0	18	18
Class 2 Bicycle Parking Spaces <sup>c</sup>	0	24	24
Car Share Parking Spaces <sup>e</sup>	0	1	1
<b>TOTAL</b>	<b>29,470</b>	<b>274,655</b>	<b>243,235</b>
<b>PROJECT TOTAL</b>		<b>303,095</b>	

SOURCES: Skidmore, Owings & Merrill LLP, ALTA, San Francisco Fire Department, February 2021

NOTES:

<sup>a</sup> sf = square feet

<sup>b</sup> Parking provided exceeds limits on accessory parking in San Francisco Planning Code due to fire department parking requirements. The fire department parking spaces would be entitled as a non-accessory parking garage.

<sup>c</sup> Bike parking is calculated per San Francisco Planning Code section 155.2. The proposed project provides 26 of the 30 class 2 bicycle parking required. The remaining four class 2 bicycle parking spaces are proposed to be provided through a Zoning Administrator variance and in-lieu fee payment, pursuant to San Francisco Planning Code sections 305 and 307(k)(2)(E).

<sup>d</sup> Loading spaces are calculated per San Francisco Planning Code article 1.5, section 152.1.

<sup>e</sup> Car Share parking is calculated per San Francisco Planning Code section 166.





## **19-STORY BUILDING**

### ***RETAIL/RESTAURANT USE***

The 19-story building would include approximately 6,470 square feet of retail/restaurant use at the northwest corner of the building's first and second floors. The second basement level of the building would house approximately 2,300 square feet of service/utility space to support the retail/restaurant use. The retail/restaurant use would be accessed from a pedestrian entrance on Sansome Street.

### ***OFFICE USE***

The 19-story building would include office use, totaling 40,490 square feet, on the first, second, and sixth through eighth floors. A shared lobby for the fitness center and office use would be located on first floor and accessible from Merchant Street.

### ***FITNESS CENTER***

The 19-story building would include a fitness center, totaling 35,230 square feet, on the third through fifth floors. The primary fitness center would be located on the fourth and fifth floors, with showers, lockers, and a spa located on the third floor. As noted above, the project proposes a shared lobby for the fitness center and office use on first floor and accessible from Merchant Street.

### ***HOTEL USE***

The 19-story building would include a 146,065-square-foot hotel with 200 guest rooms located on floors 9 through 19. The second basement level of the building would house approximately 3,900 square feet of back of house space to support the hotel use. The hotel lobby, accessible from Sansome Street, would be located at the southwest corner of the first floor. A second hotel lobby with outdoor terraces on the east, north, and west sides of the building would occupy the 19th floor and would be available to hotel guests.

### **VEHICLE AND LOADING ACCESS**

Firetruck access to the replacement fire station would occur via an approximately 73-foot-wide curb cut on Washington Street. Access to the 18 fire department parking spaces located on the third level of the basement would be from a ramp from Merchant Street.

The 19-story building would provide a loading dock accessible from Washington Street via a 12-foot-wide curb cut at the northeast corner of the first floor. Two additional loading/service vehicle spaces would be provided in the same location on the second basement level. The project sponsor seeks a planning code section 309 exception for one additional loading space required for the mix of uses proposed.

Subject to review and approval by the San Francisco Municipal Transportation Agency (SFMTA), the project proposes to establish two curbside valet-attended, passenger loading zones. The primary loading zone would extend along the east side of Sansome Street between Washington and Merchant streets during off-peak hours (outside of 3 to 7 p.m.). A secondary 40-foot-long passenger loading zone would extend along the Merchant Street in front of the hotel and office lobbies during the p.m. peak period from 3 to 7 p.m., during which period use of the Sansome Street loading zone would be prohibited. An approximately 45-foot-wide no parking/loading zone would be located on the southern side of Washington Street immediately west of the replacement fire station. Access to the 30 vehicle parking spaces, including one carshare space, on

basement levels 1 and 2 would occur via the same ramp on Merchant Street used to access fire station parking on the third level of the basement.

## **BICYCLE PARKING**

The proposed project would provide 22 class 1 bicycle parking spaces on the first basement level adjacent to the elevators and 26 class 2 bicycle parking spaces on streets adjacent to the project site, subject to SFMTA and San Francisco Public Works approval. The remainder of the four class 2 bicycle parking spaces required by the San Francisco Planning Code (planning code) would be provided through a variance and in-lieu fee payment pursuant to planning code sections 305 and 307(k)(2)(E).

## **STREETScape IMPROVEMENTS**

Implementation of the proposed project would remove the three existing street trees along the north side of Merchant Street. The proposed project would comply with San Francisco Public Works Code requirements for street trees associated with new developments by including four new street trees along Sansome Street and five new street trees along Merchant Street. An in-lieu fee would be paid for street tree plantings otherwise required by the public works code that cannot reasonably be accommodated on the site.

The proposed project would convert a portion of Merchant Street into a shared street/living alley with approximately 4,810 square feet of POPOS that would extend from Sansome Street to the eastern edge of the project site. Streetscape improvements include installation of a raised cross walk and roadway ramp at the intersection of Sansome and Merchant streets, installation of benches under the street trees proposed in front of the office and gym lobbies and replacement fire station (see **Figure 14**).

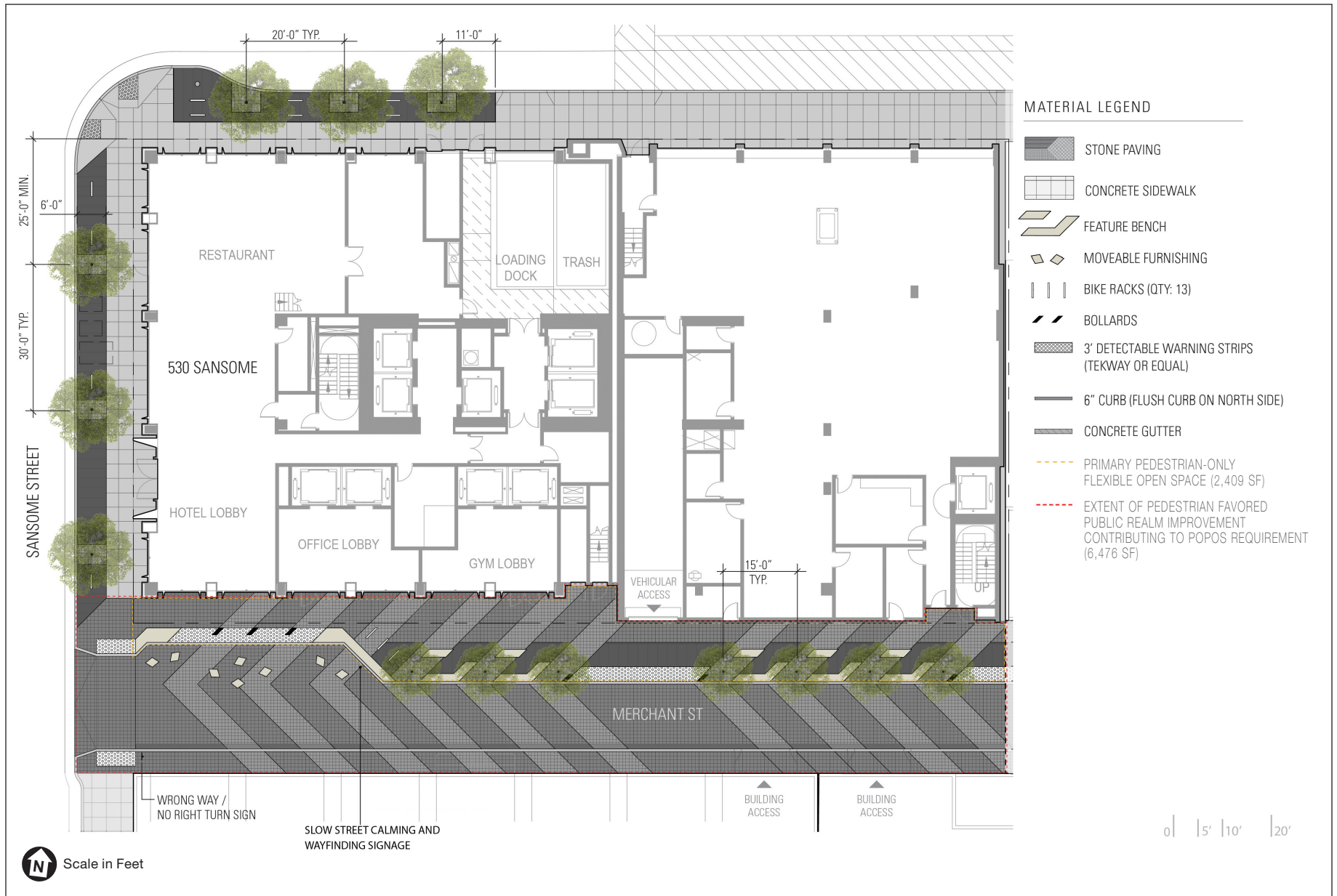
The project would prepare a plan for driveway loading and operations, and the project's POPOS programming and activation plan on Merchant Street. The plans and programming would be subject to approval from planning, SFMTA, and San Francisco Public Works.

The project would remove up to eight existing on-street parking spaces along the northern side and all parking along the southern side of Washington Street between Sansome and Battery streets. On-street parking along the southern side of Washington Street would be removed to provide a no parking/loading zone, a loading dock, and egress for the fire station. On-street parking would be removed along the northern side of Washington Street fronting the U.S. Citizenship and Immigration Services building in order to provide adequate space for fire truck movement from the fire station onto west-bound Washington Street.

Implementation of any proposed improvements within the public right-of-way would require coordination with city agencies, including SFMTA and San Francisco Public Works, for approvals regarding sidewalk widening and modifications to related infrastructure.

## **Residential Variant**

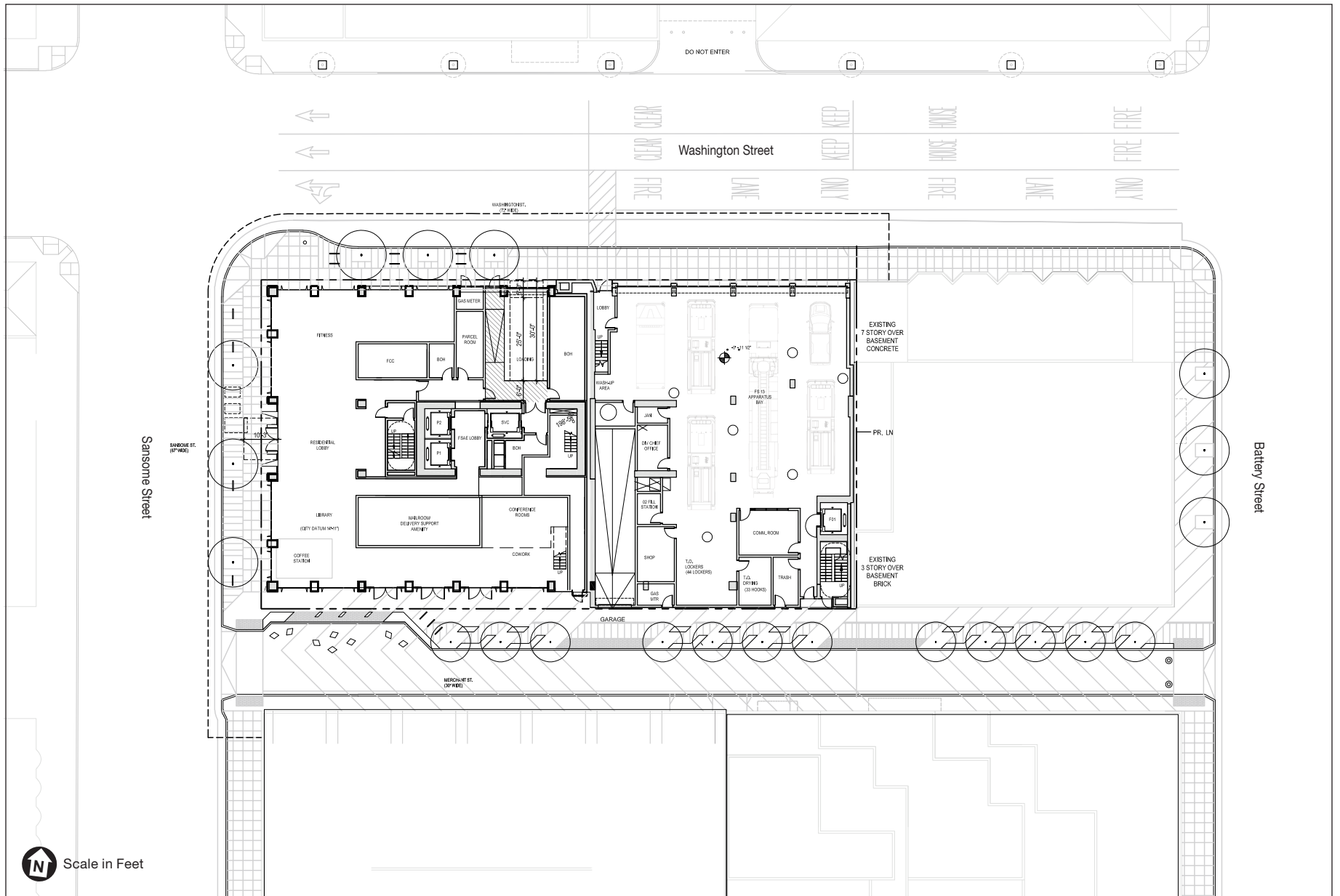
The project sponsor also proposes a residential variant to the project, which would construct an approximately 218-foot-tall building (236 feet total, including rooftop mechanical equipment) with 256 residential units instead of the hotel, office, fitness center, and retail/restaurant uses. **Figure 15**, p. 20, shows the residential variant's site plan and **Table 2**, p. 21, summarizes the residential variant characteristics.



SOURCE: Skidmore, Owings & Merrill LLP, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 14**  
**LANDSCAPE PLAN**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 15**  
**RESIDENTIAL VARIANT - SITE PLAN**

**Table 2 Residential Variant Characteristics**

Project Component	Existing ([sf] <sup>a</sup> )	Proposed (sf)	Net New (sf)
<b>FIRE STATION 13</b>			
Height of Building	35	44 feet	9
Number of Stories	2	4	2
Above Grade	18,625	20,240 (Floors 1-4)	1,615
Below Grade	8,850	8,245	-605
Parking Spaces <sup>a</sup>	21	18 (Basement Level 3)	-3
Class 1 Bicycle Parking Spaces <sup>b</sup>	0	4	4
Class 2 Bicycle Parking Spaces <sup>b</sup>	0	6	6
<b>TOTAL</b>	<b>27,475</b>	<b>28,485</b>	<b>1,010</b>
<b>21-STORY RESIDENTIAL BUILDING</b>			
Height of Building	44	218 feet	174
Number of Stories	2-3	21	18-19
Office	20,720	0	-20,720
Residential	—	257,400 (256 units)	257,400 (256 units)
Below Grade	8,750	44,405	35,655
Parking Spaces	0	64 (Basement Levels 1-3)	64
Loading Spaces <sup>c</sup>	0	3 (one loading space on Floor 1; 2 service vehicle spaces on Basement Level 1)	3
Class 1 Bicycle Parking Spaces	0	139	139
Class 2 Bicycle Parking Spaces	0	13	13
Car Share Parking Spaces <sup>d</sup>	0	2	2
<b>TOTAL</b>	<b>29,470</b>	<b>303,505</b>	<b>262,575</b>
<b>PROJECT TOTAL</b>		<b>331,990</b>	

SOURCES: Skidmore, Owings & Merrill LLP, ALTA, San Francisco Fire Department, February 2021

NOTES:

<sup>a</sup> SF = square feet

<sup>b</sup> Parking provided exceeds limits on accessory parking in San Francisco Planning Code due to fire department parking requirements. The fire department parking spaces would be entitled as a non-accessory parking garage.

<sup>c</sup> Bike parking is calculated per San Francisco Planning Code section 155.2.

<sup>d</sup> Loading spaces are calculated per San Francisco Planning Code article 1.5, section 152.1.

<sup>e</sup> Car Share parking is calculated per San Francisco Planning Code section 166.

The proposed 21-story residential variant would have the same building envelope as the proposed project, with relatively minor variations in massing (see Figure 15, p. 20). At the fourth floor, the 21-story building would cantilever over the third floor of the replacement fire station and the buildings would be structurally separated above grade. **Figure 16**, p. 23 shows the east/west building section and massing of the residential variant. The three additional stories gained for the residential variant is due to the reduced floor-to-floor heights; therefore, the residential variant, like the proposed project, would be approximately 218 feet tall (see Figure 16, p. 23). The residential variant would provide 6,384 square feet of common open space for the residents on floor 21 in the form of a solarium. Representative floor plans for the residential variant are provided in **Figure 17** through **Figure 23**, pp. 24–30).

## REPLACEMENT FIRE STATION

Like the proposed project, the residential variant would demolish the existing Fire Station 13 and construct a 44-foot-tall, four-story replacement fire station on the eastern portion of the project site. The replacement fire station would provide 20,240 square feet of the same uses on floors 1 through 4 as under the proposed project (see Figure 15, p. 20, and **Figure 20** and **Figure 21**, pp. 27 and 28).<sup>3</sup> An additional 490 square feet of equipment storage space and approximately 7,710 square feet reserved for 18 fire department parking spaces would be located on the third basement level, similar to the proposed project. Like the proposed project, firetruck access would be provided on Washington Street and a vehicular ramp to the underground parking garage would be provided on Merchant Street for personal vehicles (see Figure 15, p. 20).

## 21-STORY BUILDING (RESIDENTIAL VARIANT)

Under the residential variant, the sponsor proposes approximately 257,400 square feet of residential use (approximately 256 units) on floors 3 through 21. The residential unit mix would include 191 studio/one-bedroom units, 38 two-bedroom units, and 27 three-bedroom units. The first and second floors of the residential variant would include a residential lobby, fitness area, coffee station, library, mailroom, leasing office, conference rooms, and co-working space for use by residential tenants. The third basement level of the building would house a grey water treatment plant for the residential use.

## VEHICLE AND LOADING ACCESS

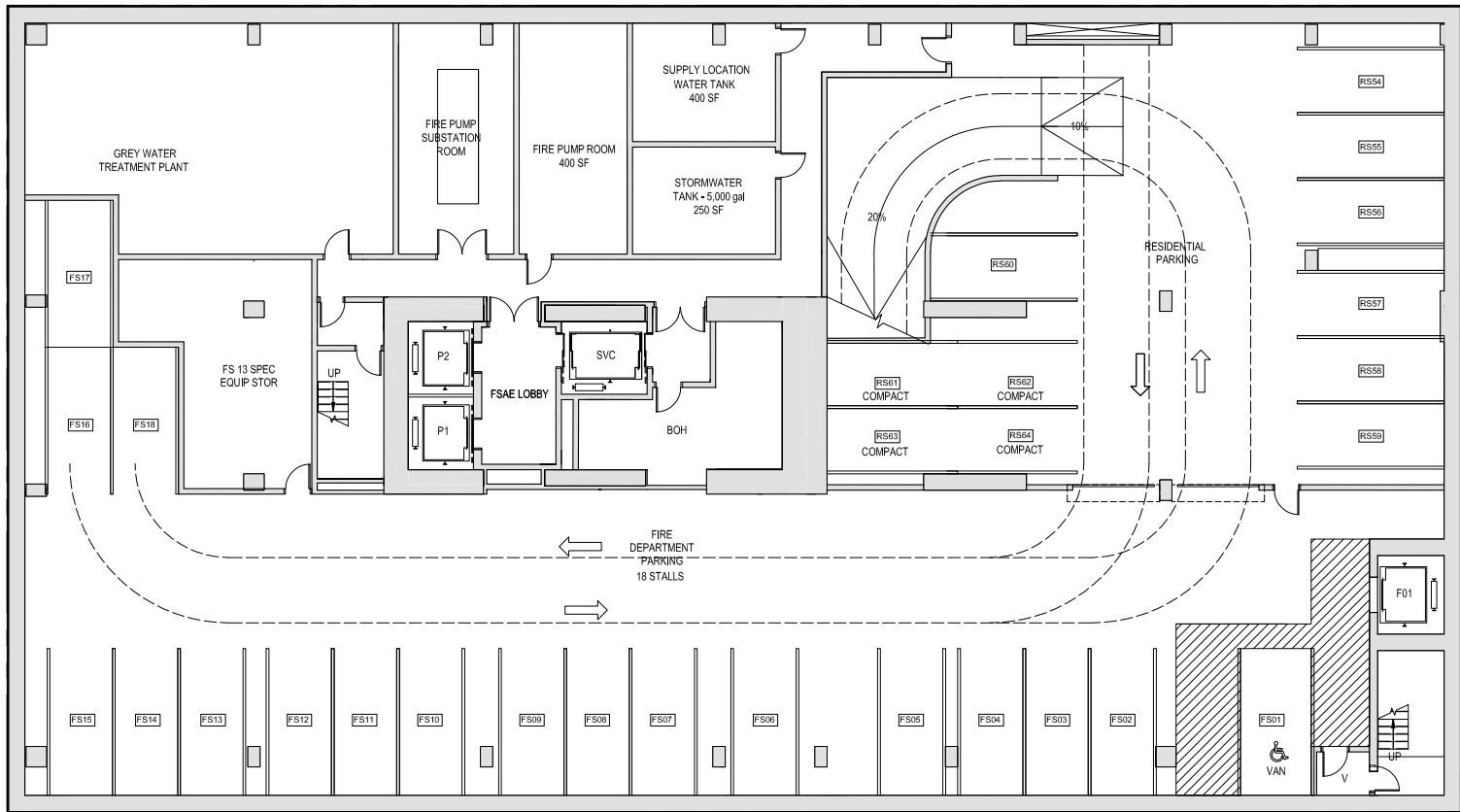
Firetruck and fire department parking access would be the same as the proposed project. Like the proposed project, a loading dock accessible from Washington Street via a 12-foot-wide curb cut would be provided at the northeast corner and passenger loading zones along the east side of Sansome Street and southwest portion of Washington Street (subject to review and approval by SFMTA).

Two additional loading/service vehicle spaces would be provided in the northeast corner of the project site on the third basement level, meeting the planning code loading requirement for the residential uses proposed. Access to the 64 vehicle parking spaces, including two carshare spaces, on basement levels 1 through 3 would be provided via the ramp on Merchant Street.

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<sup>3</sup> The 50 square foot difference is due to reconfiguring fire department space in the basement levels and lack of ground floor retail space.





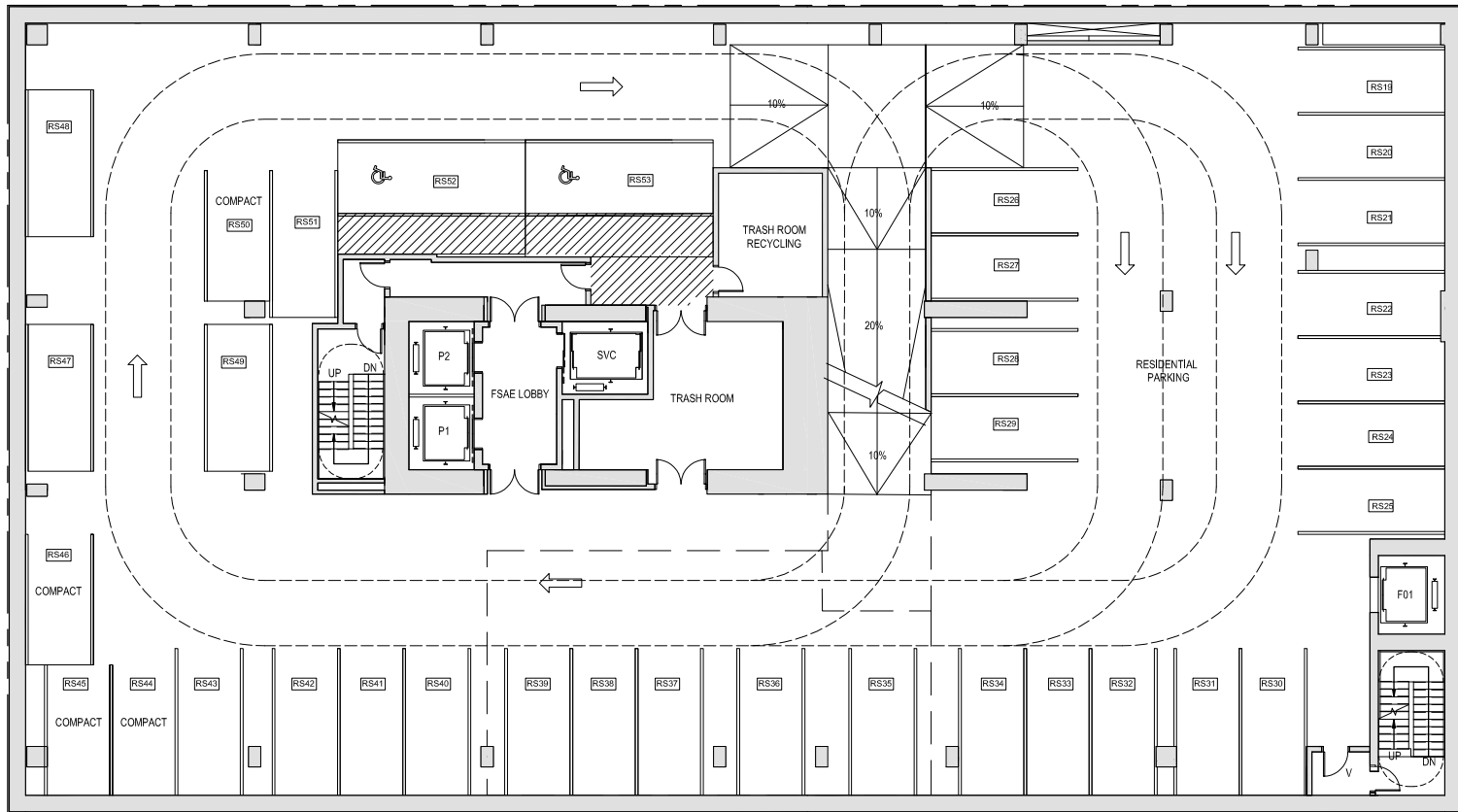
 Scale in Feet

SOURCE: Skidmore, Owings & Merrill LLP, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 17**  
**RESIDENTIAL VARIANT - BASEMENT LEVEL 3 FLOOR PLAN**



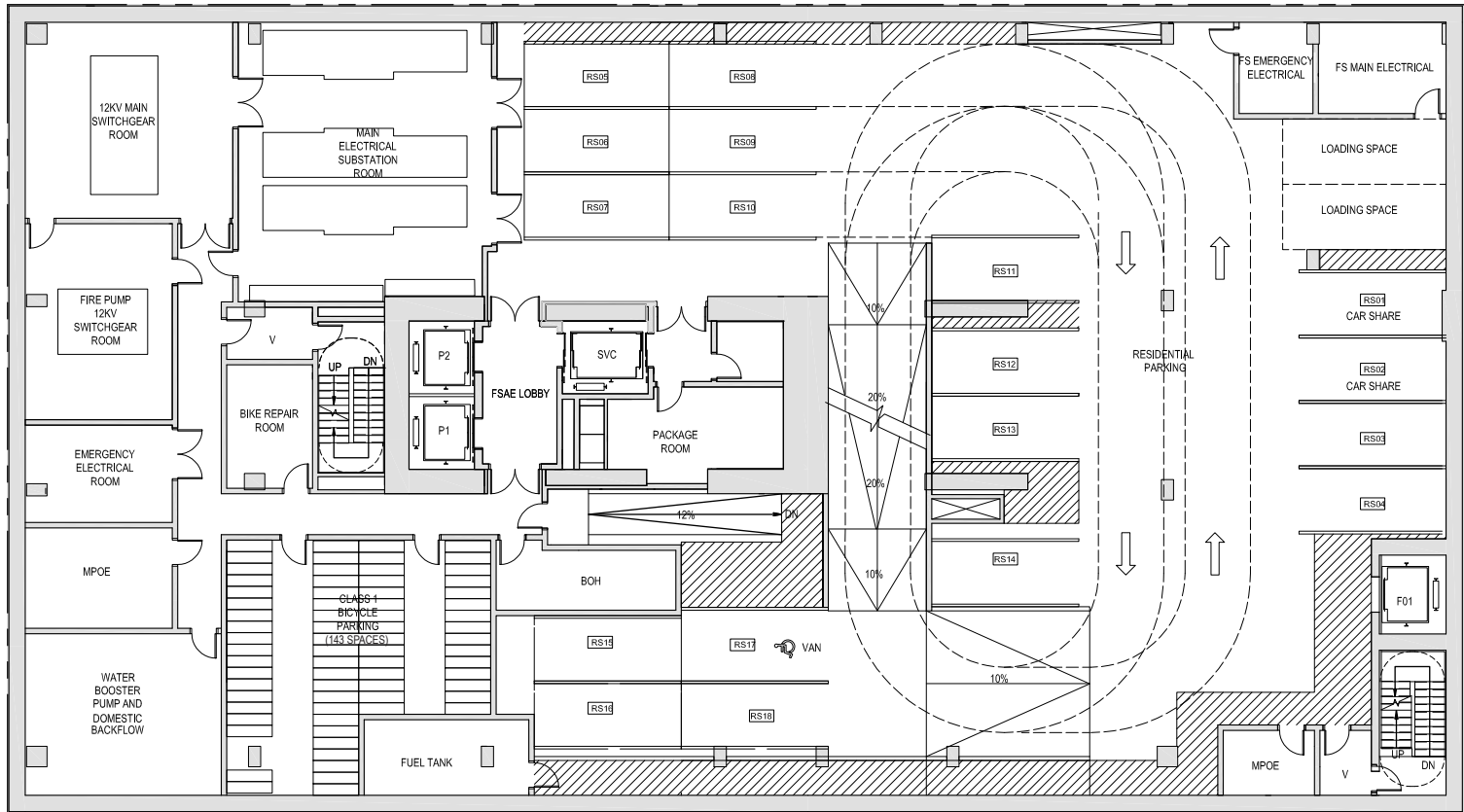


 Scale in Feet

SOURCE: Skidmore, Owings & Merrill LLP, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 18**  
**RESIDENTIAL VARIANT – BASEMENT LEVEL 2 FLOOR PLAN**

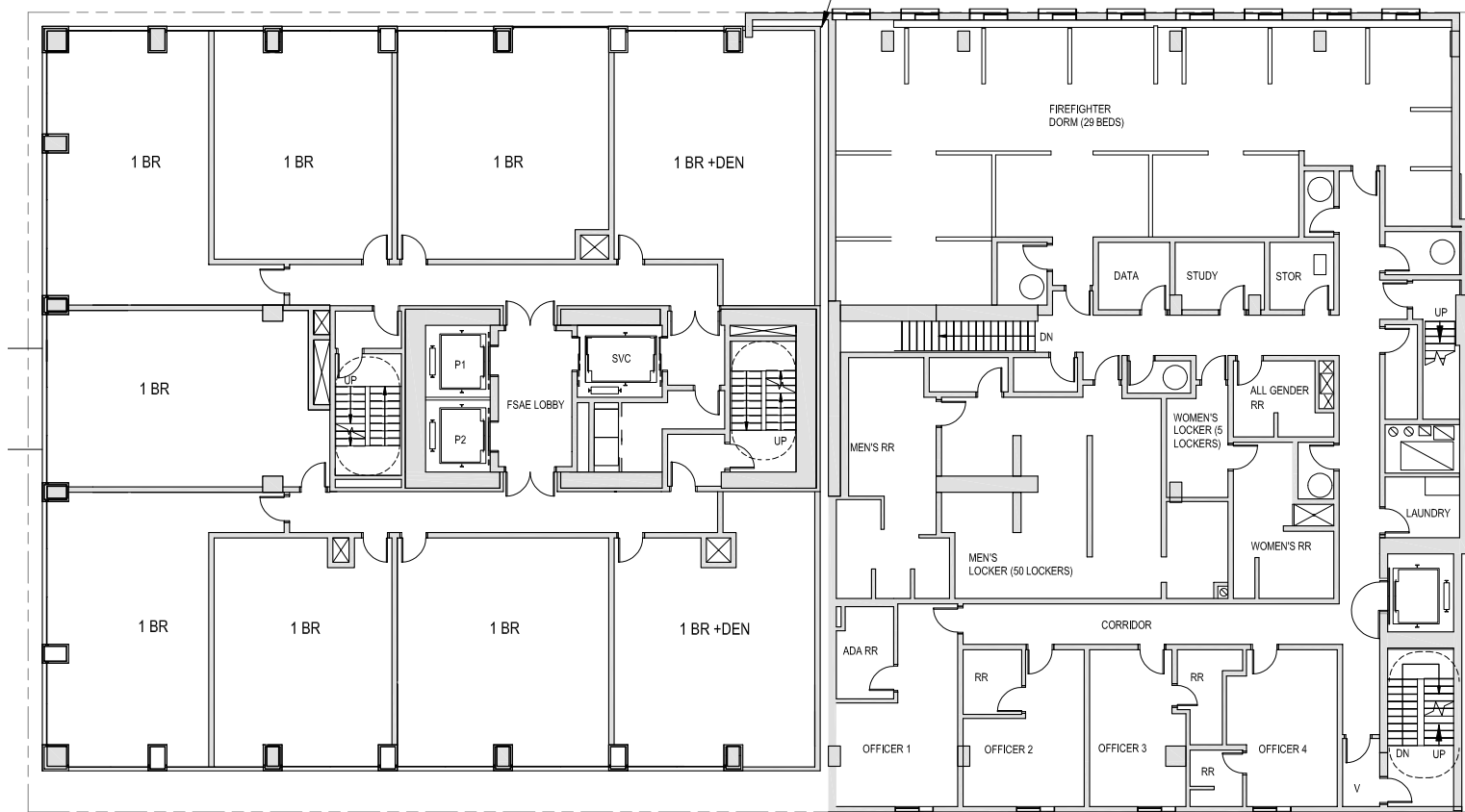


 Scale in Feet

SOURCE: Skidmore, Owings & Merrill LLP, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 19**  
**RESIDENTIAL VARIANT - BASEMENT LEVEL 1 FLOOR PLAN**

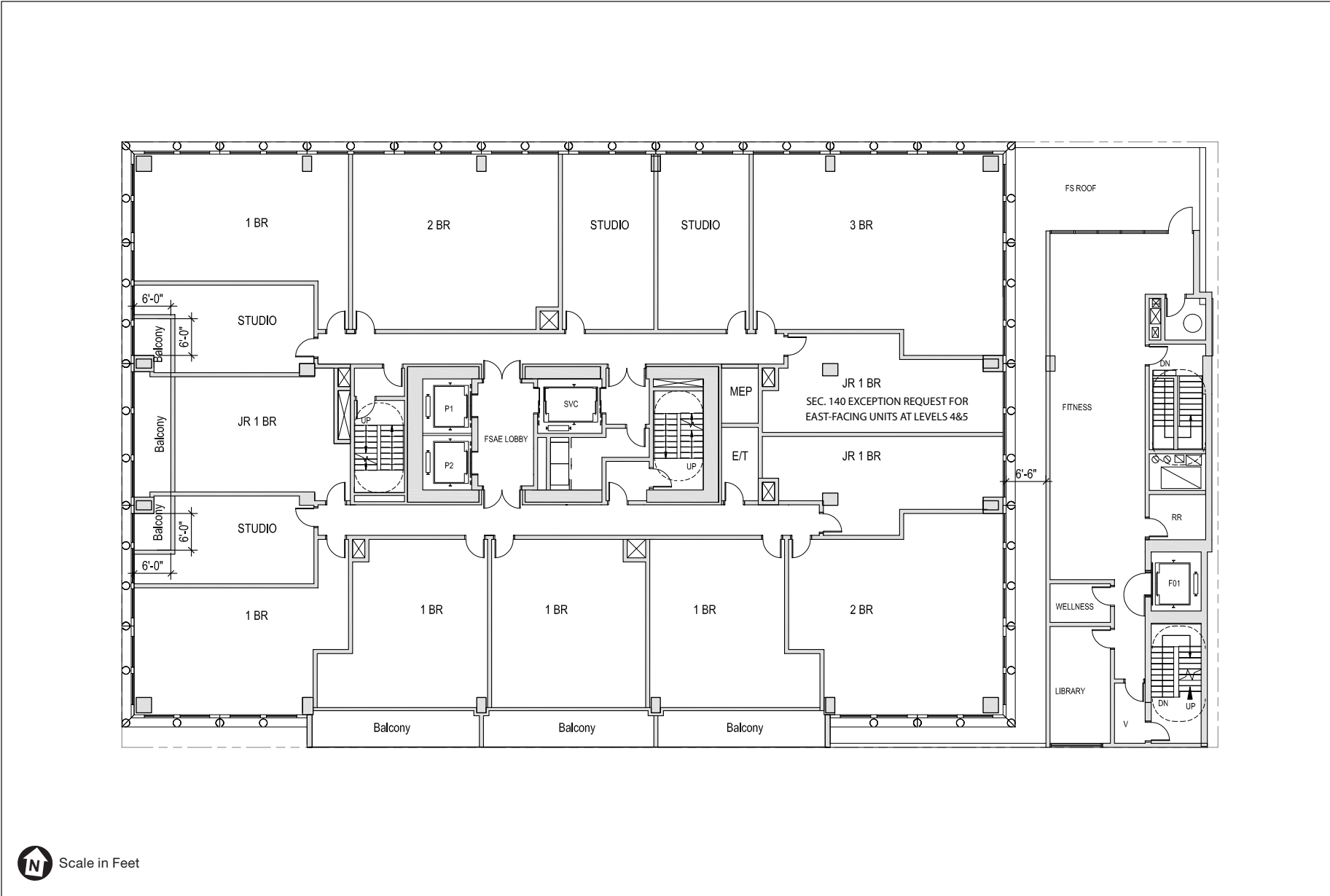


 Scale in Feet

SOURCE: Skidmore, Owings & Merrill LLP, 2021

530 Sansome Street; Case No: 2019-017481ENV

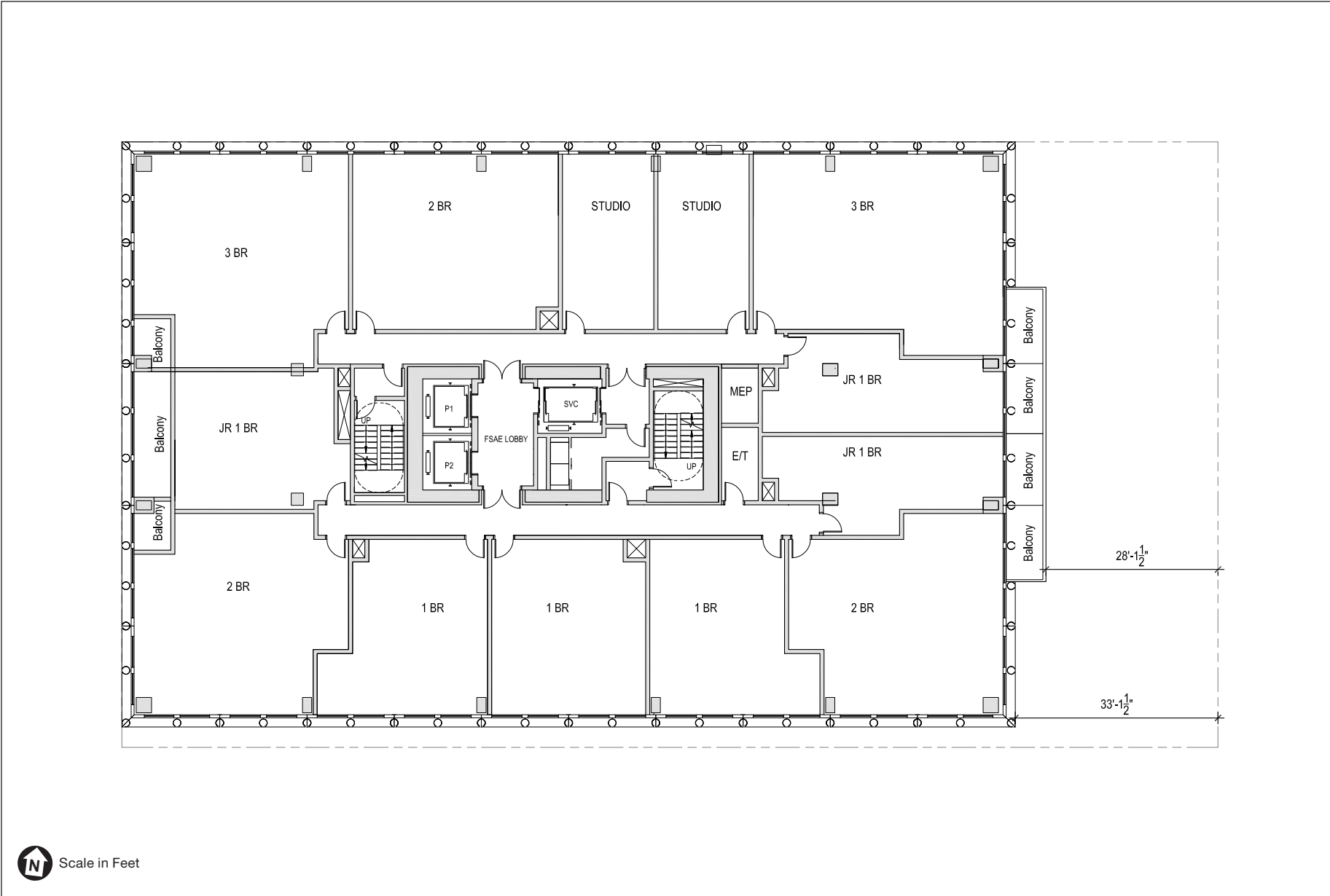
**FIGURE 20**  
**RESIDENTIAL VARIANT - LEVELS 2-3 FLOOR PLAN**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

530 Sansome Street; Case No: 2019-017481ENV

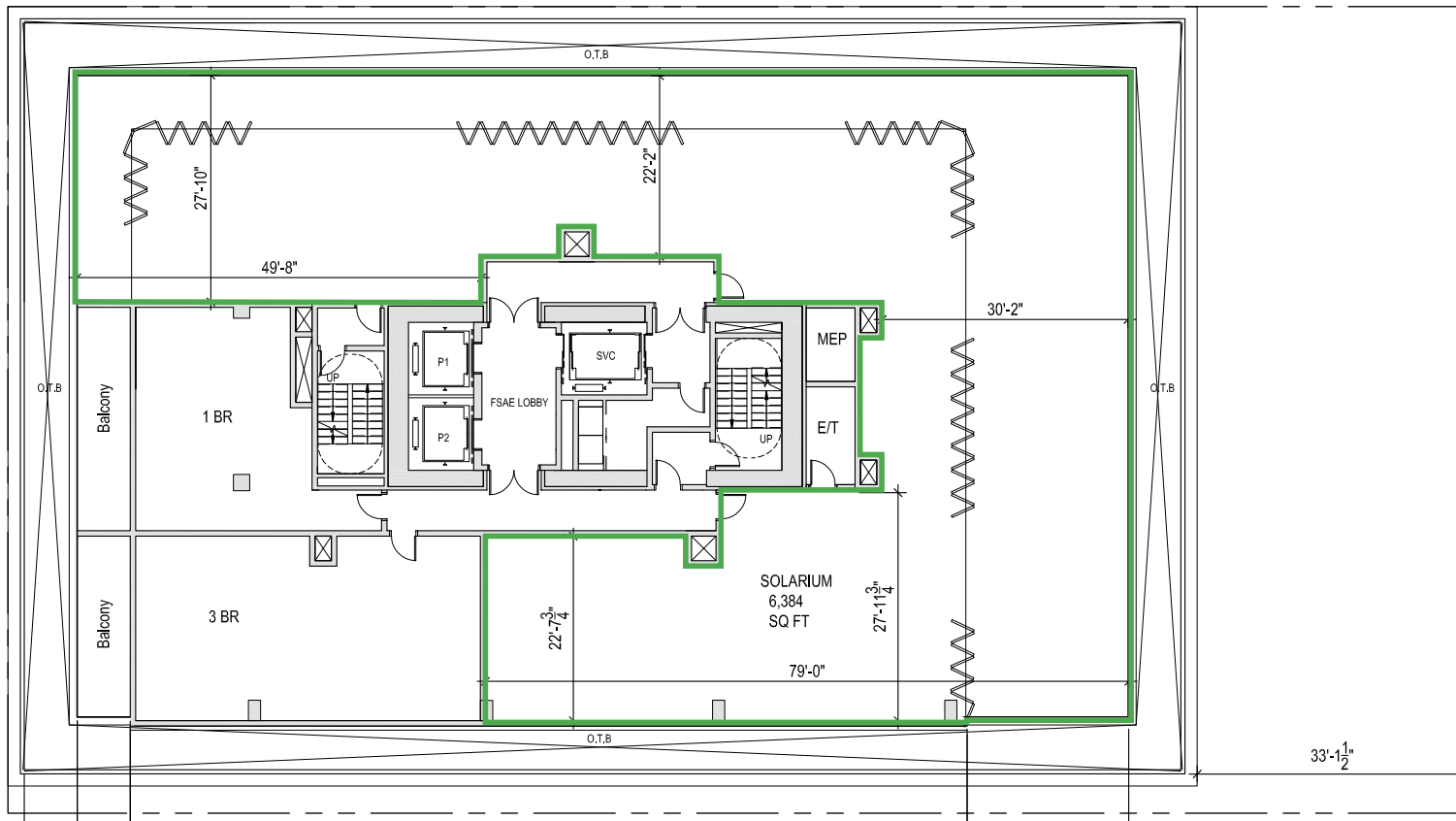
**FIGURE 21**  
**RESIDENTIAL VARIANT - LEVEL 4 FLOOR PLAN**



SOURCE: Skidmore, Owings & Merrill LLP, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 22**  
**RESIDENTIAL VARIANT - LEVELS 14-19 FLOOR PLAN**



— EXTENT OF LEVEL 21  
COMMON OPEN SPACE (6,384 SQ SF)

 Scale in Feet

SOURCE: Skidmore, Owings & Merrill LLP, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 23**  
**RESIDENTIAL VARIANT – LEVEL 21 FLOOR PLAN**

## **BICYCLE PARKING**

The residential variant would provide 143 class 1 bicycle parking spaces on the first basement level for the residential use. An additional 19 class 2 bicycle parking spaces would be located on streets adjacent to the project site, subject to SFMTA and San Francisco Public Works approval.

## **STREETSCAPE IMPROVEMENTS**

The residential variant would include substantially the same streetscape improvements as the proposed project.<sup>4</sup> The residential variant would also prepare a plan for driveway and loading operations, similar to the proposed project.

## **Project Construction**

Construction for either the proposed project or residential variant is estimated to last 29 months with overlapping phases; and neither building would be occupied during construction. Demolition would take approximately two months. Excavation and shoring would last approximately five months. Foundation and below-grade construction would last about four months. Building construction and exterior and interior finishing phases would partially overlap and last approximately 17 months. Construction of the basement levels and foundation installation would require excavation extending to approximately 40 feet below ground surface (bgs). Overall, excavation of the basement levels would remove approximately 28,000 cubic yards of soil.

Construction workers driving to the project site could park at nearby garages or on-street parking spaces. Construction equipment and materials would be staged on-site and on sidewalks adjacent to the project site, including a portion of the on-street angled parking area on the south side of Washington Street. Pedestrian traffic would be routed to a protected pedestrian lane in the on-street angled parking area on the south side of Washington Street. A full closure of Washington Street would occur for two days to erect and dismantle a tower crane, and the easternmost northbound lane on Sansome Street would be closed for one day during the mat foundation placement.<sup>5</sup> During project construction, closures of those same travel lanes on Sansome and Washington streets could be necessary for two single-day periods for utility work. Nighttime closure of Merchant Street could be necessary on two separate days for utility work.

The majority of project construction would occur during daytime hours. Some construction activities that would extend beyond normal hours (i.e., between 8 p.m. and 7 a.m.), such as a 20-hour concrete pour, crane and hoist erection and adjustment activities, utility work, site maintenance activities and material delivery and handling.

During construction, fire department personnel and firetrucks would be relocated to nearby offsite fire stations, and would continue to serve the Financial District neighborhood and the city in general. Relocation of fire equipment would take no more than eight hours to complete.

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<sup>4</sup> Note that whereas the proposed project's streetscape improvements on Merchant Street are proposed to satisfy planning code section 138 (privately owned public open space requirements applicable to non-residential projects in the C-3 district) the residential variant voluntarily proposes the same streetscape improvements on Merchant Street; however, the proposed improvements to Merchant Street would not be regulated and operated as POPOS.

<sup>5</sup> No parking or loading is currently permitted on the easternmost northbound lane on Sansome Street between Washington and Merchant streets due to access requirements for Fire Station 13.

## Project Approvals

The following is a preliminary list of anticipated approvals for the proposed project and is subject to change. These approvals may be considered by city decision-makers in conjunction with the required environmental review, but they may not be granted until completion of the environmental review.

### ACTIONS BY THE PLANNING COMMISSION

- Approval of an application for a Downtown Project Authorization for the construction of a new building in a Downtown (C-3) Zoning District (San Francisco Planning Code section 309), including approval exceptions for:
  - Bulk controls for lower and upper maximum allowable average area and maximum dimensional length
  - Additional height of up to 10 percent in S bulk district
  - Off-street freight loading in C-3 districts
  - Reduction of shadows on certain public or publicly accessible open spaces in C-3 districts
  - Reduction of ground level wind currents in C-3 districts
- Approval of shadowing on publicly accessible open space under the jurisdiction of the Recreation and Park Commission after consultation with the Recreation and Parks Commission (planning code section 295)
- Approval of a Conditional Use Authorization to allow a private parking garage use for the fire department in the C-3-O (Downtown Office) District (planning code section 303)
- Approval of a Conditional Use Authorization to allow a hotel use (planning code section 303)
- Approval of an Office Allocation under 50,000 square feet (planning code section 321)

### JOINT ACTION BY THE PLANNING COMMISSION AND THE RECREATION AND PARKS COMMISSION

- Approval of increase to annual cumulative shadow limit for Maritime Plaza and Sue Bierman Park

### ACTIONS BY THE ZONING ADMINISTRATOR

- Approval of Certificate(s) of Transfer and Notice(s) of Use of TDR (planning code sections 127 and 128)
- Approval of a variance for width and number of parking and loading entrances on Washington Street (planning code section 145.1)
- Approval of variance and payment of in-lieu fee for the proposed project's class 2 bicycle parking spaces that cannot be accommodated on Washington, Sansome, or Merchant streets due to fire department site constraints (planning code sections 305 and 307(k)(2)(E))
- Approval for certain back of house areas on the ground floor to have ceiling heights under 14 feet (planning code section 145.1)



- Approval of variance for architectural screening over gym locker rooms on the third floor (planning code section 145.1)

### **ACTION BY DEPARTMENT OF BUILDING INSPECTION**

- Approval of building permit(s)

### **ACTIONS BY MUNICIPAL TRANSPORTATION AGENCY**

- Approval of permits for streetscape modifications in the public right-of-way
- Approval of parking and traffic changes including fire station striping on Washington Street and color curb zones
- Approval of change to the transportation code for the removal of parking on the north side of Washington Street

### **ACTIONS BY PUBLIC WORKS**

- Approval of permits for streetscape modifications in the public right-of-way
- Approval of new, removed, or relocated street trees
- Approval of any situations involving construction that would need to extend beyond normal hours (i.e., between 8 p.m. and 7 a.m.), which could include concrete pours, crane and hoist erection and adjustment activities, site maintenance activities and material delivery and handling

### **ACTION BY DEPARTMENT OF PUBLIC HEALTH**

- Approval of site mitigation plan pursuant to Maher Ordinance

### **ACTIONS BY BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

- Issuance of permits for the installation and operation of emergency generators

### **ACTIONS BY SAN FRANCISCO PUBLIC UTILITIES COMMISSION**

- Approval of the use of groundwater wells during dewatering associated with construction
- Approval of landscape and irrigation plans to extent project installs or modifies 500 square feet or more of landscape area

### **ACTION BY SAN FRANCISCO FIRE COMMISSION**

- Approval of demolition of existing Fire Station 13 and construction of replacement Fire Station 13

### **APPROVAL ACTION**

- Approval of the Downtown Project Authorization by the planning commission would constitute the approval action.

The approval action date establishes the start of the 30-day period for the appeal of the final mitigated negative declaration to the board of supervisors pursuant to section 31.04(h) of the San Francisco Administrative Code.

The residential variant approvals would be the same as the proposed project listed below with the exception of the following:

- No Conditional Use Authorization for the hotel use (planning code section 303)
- No Office Allocation (planning code section 321)
- No exception from off-street loading requirements (planning code section 309)
- An additional exception from rear yard requirements and unit exposure requirements for four units on levels 4 and 5, and off-street freight loading (planning code section 309)
- No variance or payment of in-lieu fee for the class 2 bicycle parking spaces
- No variance for architectural screening at third floor

## B. Project Setting

### Existing Setting

Three buildings occupy the project site: a vacant office building at 425 Washington Street, a vacant commercial building at 439–445 Washington Street, and Fire Station 13 at 530 Sansome Street.

The project site is generally flat with a ground surface elevation of approximately 23 feet above mean sea level. The project site is fully developed with no permeable surfaces. The two buildings at 425 and 439–445 Washington Street were built in 1906 and 1907, and a third story was added to the building at 425 Washington Street in 1928. Neither building is eligible for listing on the California Register of Historical Resources (California register), nor are they eligible for inclusion in the nearby Jackson Square Historic District.<sup>6</sup> The Fire Station 13 was constructed in 1974. The sculpture mounted on the fire station building's north façade (referred to as *Untitled*) is considered individually eligible for listing in the California register, and both the building and *Untitled* are contributors to the Embarcadero Center Historic District.<sup>7,8</sup> The Embarcadero Center Historic District is eligible for listing in the California register under Criterion 3 as a distinguishable complex whose buildings were designed by master architect John C. Portman, Jr., in the Brutalist style

The fire station currently operates 24 hours per day and 7 days per week, and includes 10 full-time personnel. An approximately 74-foot-wide curb cut provides access to the fire trucks from Sansome Street, and an approximately 10-foot-wide curb cut on Merchant Street provides access to the existing ground-level garage with 21 parking spaces for Fire Station 13 employees and fire department vehicles and equipment.

The project site is primarily surrounded by office uses with ground floor retail uses. U.S. Citizenship and Immigration Services offices are located to the north at 444 Washington Street. The Transamerica Pyramid and associated Transamerica Redwood Park are located to the west at 600 Montgomery Street. A nine-story

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<sup>6</sup> San Francisco Planning Department, *Preservation Team Review Form, 425 and 439-445 Washington Street*, February 11, 2018.

<sup>7</sup> San Francisco Planning Department, *Historic Resources Evaluation Response Part I, San Francisco*, December 3, 2020.

<sup>8</sup> Environmental Science Associates, *Historic Resources Evaluation Report, Part 1, 530 Sansome Street*, September 2020.

office building with ground-floor retail uses is also located to the west at 545 Sansome Street. A seven-story office building with ground-floor retail uses and a basement is located to the east at 423 Washington Street. An eight-story office building is located to the south at 500 Sansome Street.

Sansome Street is a north-south two-way street, with two to three lanes running north and one lane running south.<sup>9</sup> Washington Street is an east-west one-way two-lane street. Merchant Street is an east-west one-way service alley between Battery and Sansome streets. Commercial loading zones are located on the southeast corner of Sansome Street in front of Fire Station 13 and on the north side of Merchant Street in front of 439-445 Washington Street. One on-street parking space is provided on the north side of Merchant Street in front of 425 Washington Street, and angled street parking is located on the south side of Washington Street adjacent to the project site. The north side of Washington Street between Battery and Sansome streets is designated for law enforcement vehicles only. All on-street parking in the project area is metered and subject to time restrictions, except for law enforcement vehicles.

The project site is within an area served by several San Francisco Municipal Railway (Muni) transit lines. Muni Lines 10-Townsend, 12-Folsom/Pacific, 41-Union, and 30X-Marina Express serve bus stops near the project site. In addition, Muni operates numerous surface buses and the F line historic streetcar on Market Street approximately 0.4 mile southeast of the project site. Muni also operates the Muni Metro light rail system, which in the project vicinity runs underground beneath Market Street. The closest underground Muni stations to the project site are the Embarcadero and Montgomery stations, located approximately 0.5 mile southeast and south of the project site, respectively. These stations are served by the J-Church, KT-K Ingleside/T Third Street, L-Taraval, M-Ocean View, and N-Judah Muni Metro light rail lines.

In addition to Muni operations, the following regional transit services are accessible from the project site: Bay Area Rapid Transit (BART), Golden Gate Bridge Highway and Transportation District (Golden Gate Transit and Golden Gate Ferry), San Mateo County Transit District (SamTrans), and San Francisco Bay Ferry. BART operates a regional subway system that runs underneath Market Street. BART's Embarcadero and Montgomery stations share the same street-level entrances as the Muni Metro stations. Golden Gate Transit provides bus service between San Francisco, Marin, Sonoma, and Contra Costa counties and has a number of stops on Sansome Street. The closest Golden Gate Transit stops to the project site are located on Sansome Street approximately 240 to 700 feet south of the project site between Clay and California streets for routes 4, 18, 27, 54, and 72. SamTrans provides bus service between San Francisco and San Mateo County. The closest SamTrans transit stop to the project site is approximately 0.25 mile east of the site at Clay and Drumm streets. This stop is served by SamTrans routes 292, 397, 398, and FCX. The project site is located approximately 0.5 mile west of the San Francisco Ferry Building, where the San Francisco Bay Ferry has four gates that service Vallejo, Richmond, Harbor Bay (Alameda), and Alameda/Oakland. In addition, Golden Gate Ferry operates ferry services to Larkspur, Sausalito, and Tiburon. Class III<sup>10</sup> bicycle routes are located along Sansome Street in both directions between Washington and Market streets. A San Francisco bikeshare station is located at Clay and Battery streets, approximately 600 feet southeast of the project site.

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<sup>9</sup> Sansome Street has two northbound lanes during the weekday p.m. peak period (3 to 7 p.m.) and one northbound lane at all other times.

<sup>10</sup> Class III bicycle routes are signed bike routes that allow bicycles to share travel lanes with vehicles, and often marked with shared land markings called sharrows.

## Cumulative Project Setting

Projects with the potential to contribute cumulative effects within a 0.25-mile radius of the project site are identified below in **Table 3** and **Figure 24**, p. 38. These projects are currently under review by the planning department or are entitled but not yet under construction. The potential cumulative effects of these projects are addressed, as appropriate, under each environmental topic herein.

**Table 3** Cumulative Projects within 0.25-Mile of the Project Site

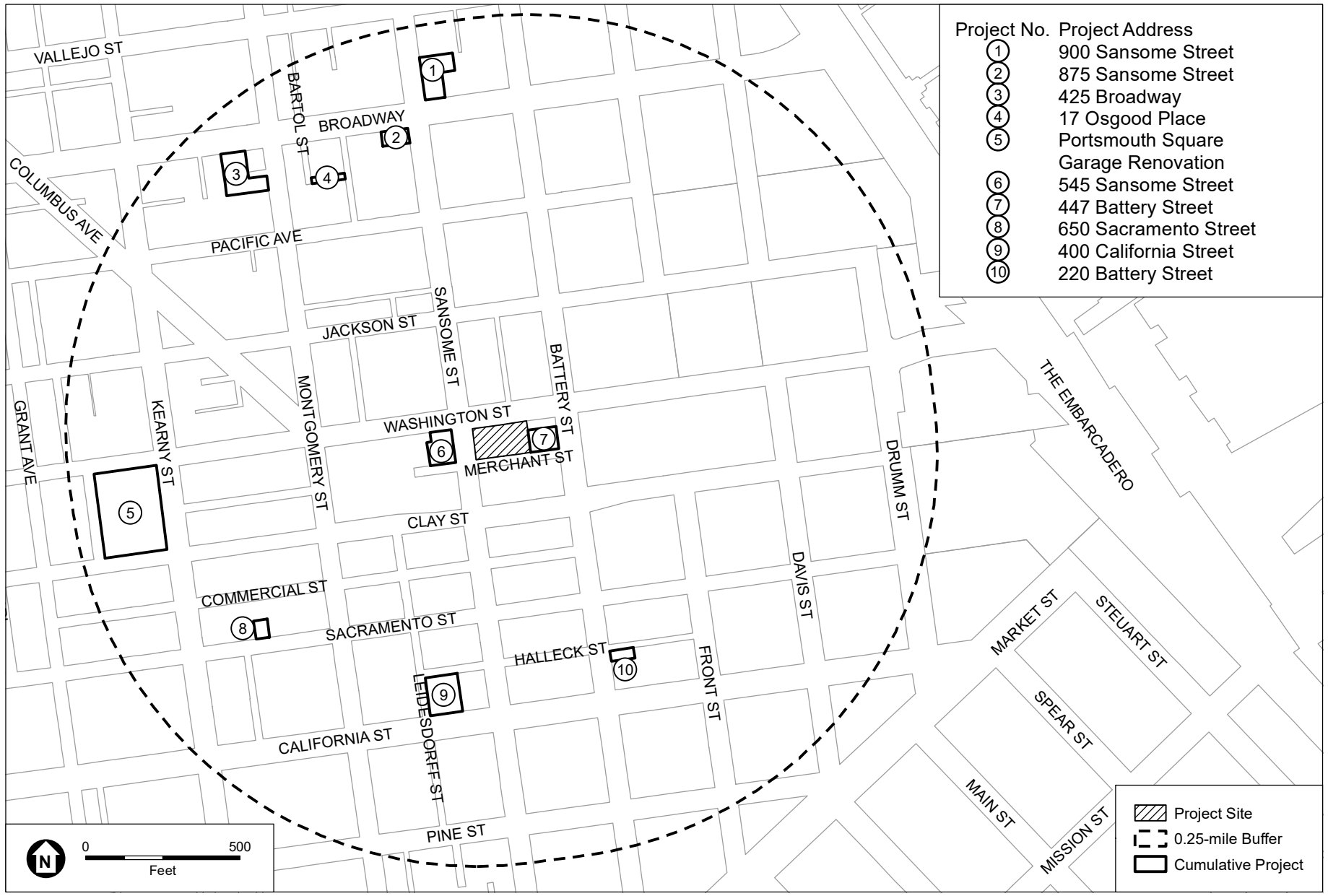
No.	Address	Planning Department Case No.	Description	Dwelling Units	Hotel Rooms	Commercial (sf) <sup>a</sup>	Office (sf)
1	900 Sansome Street	2020-009619ENV	Renovation and change of use of an existing two-story parking garage to an office building. Minor exterior modifications and no change to the building envelope.				24,903
2	875 Sansome Street	2017-003622PRJ	Construction of a six-story, 65-foot-tall mixed-use building.			3,110	5,700
3	425 Broadway	2017-015678ENV	Demolition of an existing parking garage and construction of a new six-story mixed-use building with 34 dwelling units over design professional office space, ground floor retail space, and a below grade parking garage.	34		4,543	24,487
4	17 Osgood Place	2017-001423ENV	Renovation of and addition to existing building to convert ground floor commercial space to one-bedroom residential unit and merge two existing residential units into one two-bedroom residential unit. No change to unit count or height of the building.				-860
5	Portsmouth Square Garage Renovation	2018-013597ENV	Renovation of the existing 1.5-acre Portsmouth Square park and removal of the pedestrian bridge spanning Kearny Street, replace the existing park features with a redesigned public park that would include new playgrounds, exercise equipment, shade structures, wayfinding signage, sidewalks, planters, terraces, ramps, and construct a new approximately 7,500-square-foot community clubhouse facility.				

No.	Address	Planning Department Case No.	Description	Dwelling Units	Hotel Rooms	Commercial (sf) <sup>a</sup>	Office (sf)
6	545 Sansome Street	2020-001410ENV	Demolition of buildings at 501-505 and 517 Washington Street and construction of a 49,999-square-foot office addition that would extend to the north and west of the existing 545 Sansome Street building. The principal historic street-facing facades on Sansome Street and Mark Twain Place would be retained. In total, the project would result in a new building with 105,758 square feet of office, 5,420 square feet of ground floor retail, and 1,000 square feet of POPOS. <sup>b</sup>			5,420 (2,419 net new)	105,758 (49,999 net new)
7	447 Battery Street	2014-1036ENV	Demolition of and existing three-story building and construction of a new 18-story hotel with ground-floor retail project.	9	198	2,720	
8	650 Sacramento Street	2014-1036ENV	Adaptive re-use conversion of an existing three-story building to four-story group housing.	19			
9	400 California Street	2020-010710PRJ	Conversion of 9,330 square feet of ground floor space to office use. The property consists of the historic two-story Bank of California building (the bank) and adjacent 21-story office tower located at 430 California Street, which is connected to the bank via two openings on the ground floor. The conversion to office space would retain the bank's historic features.				9,330
10	220 Battery Street	2017-004065ENV	Construction of a 3,260-square-foot four-story vertical addition atop the existing two-story structure. No change to office use of existing building.	4			

SOURCE: San Francisco Planning Department 2020

<sup>a</sup> SF = square feet

<sup>b</sup> POPOS = privately owned public open space



SOURCE: San Francisco Planning Department, 2021; ESA, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 24**  
**CUMULATIVE PROJECTS**

## 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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any conflicts with any adopted plans and goals of the City or region, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any approvals and/or permits from city departments other than the planning department or the Department of Building Inspection, or from regional, state, or federal agencies.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### SAN FRANCISCO PLANNING CODE

The planning code, which incorporates by reference the city’s zoning maps, governs permitted land uses, densities, and building configurations in the city. Permits to construct new buildings (or alter or demolish existing ones) may not be issued unless (1) the proposed project complies with the planning code, (2) allowable exceptions are granted pursuant to provisions of the planning code, or (3) amendments to the planning code are incorporated into the proposed project.

#### LAND USE

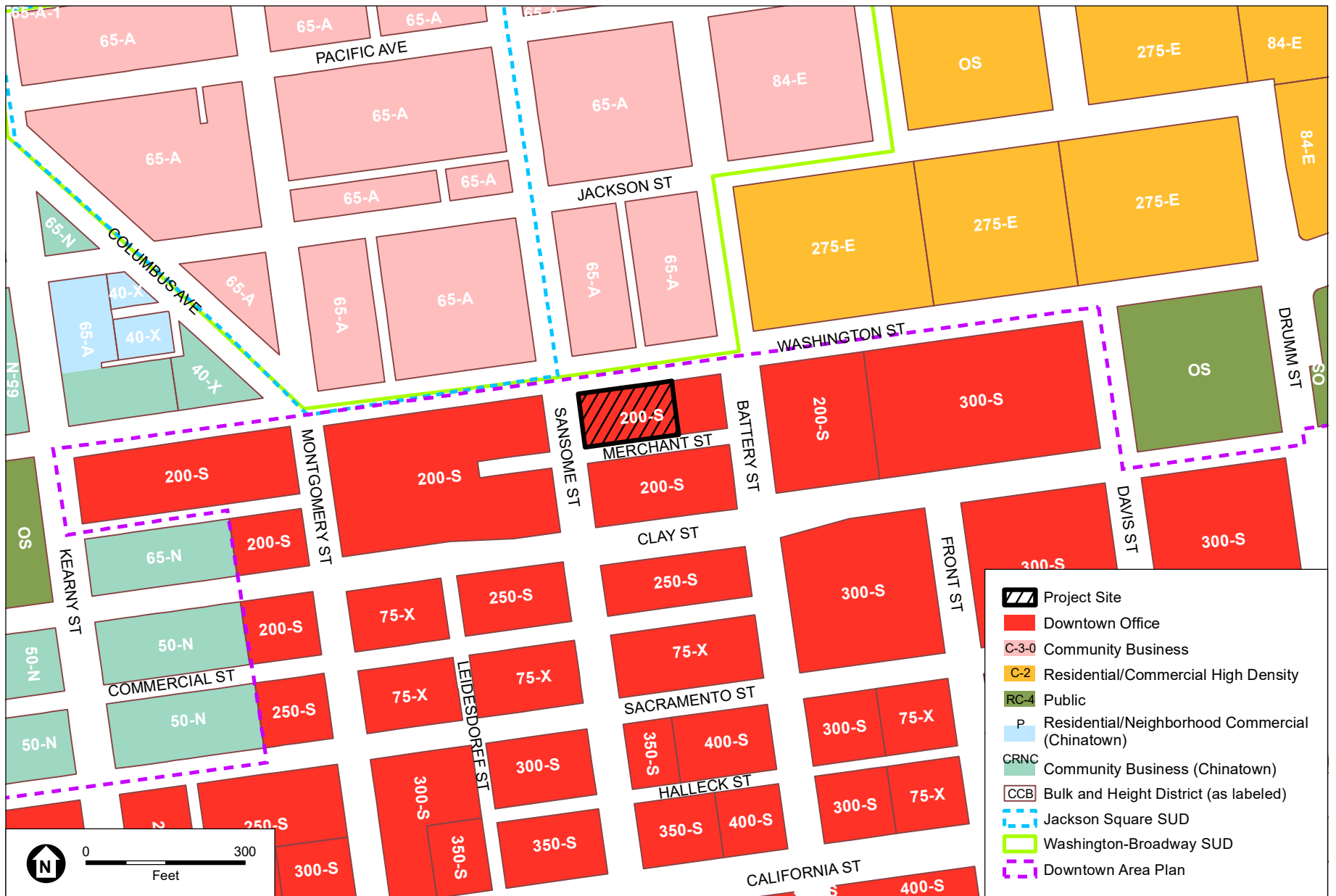
The project site is located within the Downtown Area Plan of the San Francisco General Plan and is in the C-3-O (Downtown Office) zoning district, which covers the eastern portions of downtown north of Market Street. Two Special Use Districts (SUD) are adjacent to the project site. The Washington-Broadway SUD is located immediately north of the project site, and the Jackson Square SUD, which corresponds to the boundaries of the Jackson Square Historic District, is located northwest of the project site (see **Figure 25**).

Within the C-3-O zoning district, residential, commercial, institutional, and retail sales and services are permitted. Hotel uses are conditional; therefore, a conditional use authorization under planning code section 303 would be required to permit a hotel for the proposed project. The conditional use authorization for hotel use would not be required for the residential variant. The proposed project or residential variant would require approval of a Downtown Project Authorization, per planning code section 309 for projects within a C-3-O zoning district with an area of more than 50,000 square feet or a height of more than 75 feet; the proposed project would have an area of 303,350 square feet and a height of 218 feet and the residential variant would have an area of 319,640 and height of 218 feet. Both the proposed project and residential variant would require a conditional use authorization to allow a private parking garage use for the fire department.

#### HEIGHT AND BULK

The project site is located in a 200-S Height and Bulk district, which permits a maximum building height of 200 feet.<sup>11</sup> The proposed project and residential variant would be 218 feet tall, excluding the mechanical penthouse. The 200-S Height and Bulk District allows for an increase in height by 10 percent under planning code section 263.9; the proposed project and residential variant would require approval exceptions to allow the additional 18 feet of height. The total height of the building including the mechanical penthouse would be about 236 feet.

<sup>11</sup> An additional 20 feet of building height is permitted for rooftop appurtenances such as elevator penthouses and heating and cooling equipment.



SOURCE: San Francisco Planning Department, 2020; ESA, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 25**  
**ZONING, HEIGHT AND BULK, AND SPECIAL USE DISTRICTS**



The bulk controls for a lower tower are a maximum length of 160 feet, a maximum floor size of 20,000 square feet, and a maximum diagonal dimension of 190 feet. The bulk controls for an upper tower are a maximum length of 130 feet, a maximum average floor size of 12,000 square feet, a maximum floor size for any floor of 17,000 square feet, and a maximum average diagonal dimension of 160 feet. The proposed project and residential variant would exceed the allowable average area and maximum dimensional lengths allowed in the 200-S Height and Bulk District. Therefore, the proposed project and residential variant would require approval exceptions for the lower and upper bulk controls under planning code section 309.

### **FLOOR AREA RATIO**

Floor area ratio (FAR) is the ratio of gross floor area of all the buildings on a lot to the area of the lot. The FAR for the C-3-O zone is 9:1 under planning code section 210.2. As such, the base FAR for the 17,733-square-foot project site would allow for development of a building with a gross floor area of up to 159,597 gross square feet (gsf). The FAR can be increased up to 18:1 through the purchase of TDRs under planning code section 124, which would increase the allowable gross floor area for the site to 319,194 gsf. The existing FAR of the project site is approximately 2.78:1. The proposed project and residential variant, at 243,289 gsf<sup>12</sup> (13.7 FAR) and 246,150 gsf<sup>13</sup> (15 FAR), respectively, would be within the allowable FAR of 18:1 with the purchase of TDRs.

### **OPEN SPACE**

Planning code section 135 requires either 36 square feet of private open space per dwelling unit or 1.33 times the amount of private open space required as common open space (48 square feet). The residential variant would be required to provide 9,216 square feet of private open space, 12,288 square feet of common open space, or a combination thereof. The residential variant would provide 36 square feet of private open space for 123 dwelling units in the form of private decks or balconies on levels 7 through 19, totaling 4,428 square feet. The common open space requirement would be 6,384 square feet for the remaining 126 units. The residential variant would provide 6,384 square feet of common open space in the form of a solarium on floor 21 and would meet the open space requirements.

### **PARKING AND LOADING**

Under planning code section 151.1, off-street parking is not required within the C-3 district. The proposed project and residential variant would provide a private parking garage in three below-grade levels. The proposed project and residential variant would require a conditional use authorization under planning code section 303 to establish a private parking garage for the fire department as a non-accessory use. Parking proposed for non-fire department uses in both the proposed project and residential variant is within permitted accessory parking amounts.

Planning code section 152.1 requires that the proposed project and residential variant provide three and two off-street freight loading spaces, respectively. The proposed project and residential variant would provide three off-street loading spaces: one freight loading space at ground level on the Washington Street frontage, and two service vehicle loading spaces on the second basement level.<sup>14</sup> Planning code section 153(a)(6) permits the substitution of two service vehicle spaces for one off-street freight loading space. The proposed project would provide the equivalent of two off-street freight loading spaces and would require an exception

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<sup>12</sup> Based on total gross floor area. Skidmore, Owings & Merrill, LLC, 530 Sansome Street Commercial Project Drawings/Residential Project Variant Comparison, April 2, 2021.

<sup>13</sup> Ibid.

<sup>14</sup> Planning code section 153(a)(6) permits the substitution of two service vehicle spaces for one off-street freight loading space.

under planning code section 309. The residential variant would not require a loading exception. Planning code section 155.2 requires that the proposed project provide a total of 22 class 1 bicycle parking spaces and 30 class 2 bicycle parking spaces. The proposed project would provide 26 of the 30 class 2 bicycle parking required at the project site. The remaining four class 2 bicycle parking spaces are proposed to be provided through a Zoning Administrator variance and in-lieu fee payment, pursuant to San Francisco Planning Code sections 305 and 307(k)(2)(E).

The residential variant would be required to provide a total of 143 class 1 bicycle parking spaces and 19 class 2 bicycle parking spaces. The proposed project and residential variant would meet the minimum requirements of planning code section 155.2.

## **PLANS AND POLICIES**

### ***SAN FRANCISCO GENERAL PLAN***

The San Francisco General Plan (general plan) provides the city's vision for the future of San Francisco. The general plan is divided into 10 elements that apply citywide: Air Quality, Arts, Commerce and Industry, Community Facilities, Community Safety, Environmental Protection, Housing, Recreation and Open Space, Transportation, and Urban Design. The general plan also includes area plans that identify objectives for specific geographic planning areas, such as the Downtown Area Plan, which includes the project site. The Downtown Area Plan establishes objectives and policies that guide development in the Financial District's neighborhoods. The general plan also includes a land use index, which consolidates the different land use policies contained in all the different elements of the general plan, including area plans. Centered on Market and Mission streets, the Downtown Area Plan covers an area roughly bounded by Van Ness Avenue to the west, Washington Street to the north, The Embarcadero to the east, and Folsom Street to the south. The Downtown Area Plan contains objectives and policies that address housing, urban form, safety and livability, streetscape, preservation, and transportation issues. The aim of the Downtown Area Plan is to encourage prime downtown office activity to grow, increase employment, retain a diverse base of support commercial activity in and near downtown, expand the supply of housing in and adjacent to downtown, create and maintain a comfortable pedestrian environment, create building forms that are visually interesting and harmonious with surrounding buildings, and create attractive urban streetscapes.

Any conflict between the proposed project or residential variant and policies that relate to physical environmental issues are discussed in Section E, Evaluation of Environmental Effects. The compatibility of the proposed project with General Plan policies that do not relate to physical environmental issues will be considered by decision-makers as part of their decision whether to approve or disapprove the proposed project.

### ***THE ACCOUNTABLE PLANNING INITIATIVE (PROPOSITION M)***

In November 1986, the voters of San Francisco 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 corresponding topics in Section E, Evaluation of Environmental Effects, that address the environmental issues associated with the policies, are: (1) preservation and enhancement of neighborhood-serving retail uses; (2) protection of neighborhood character; (3) preservation and enhancement of affordable housing; (4) discouragement of commuter automobiles; (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; (6) maximization of earthquake preparedness; (7) landmark and historic building preservation; and (8) protection of open space.

The removal of the sculpture *Untitled* on the building at 530 Sansome Street, which was determined to be individually eligible for listing in the California register, could conflict with Priority Policy No. 7, which prioritizes the preservation of historic buildings (although the sculpture is not a building). The physical environmental impacts and associated mitigation measures are discussed in Section E.3, *Cultural Resources*, p. 51, of this initial study.

Prior to (1) issuing a permit for any project that requires an initial study under CEQA; (2) issuing a permit for any demolition, conversion, or change in use; or (3) taking any action that requires a finding of consistency with the general plan, the city is required to find that the proposed project or legislation is consistent with the priority policies. The case report and approval motions for the proposed project will contain the department's comprehensive project analysis and findings regarding the consistency of the proposed project with the priority policies.

## **REGIONAL PLANS AND POLICIES**

In addition to local plans and policies, several regional planning agencies have environmental, land use, and transportation plans and policies that consider growth and development in the nine-county San Francisco Bay Area. Some of these plans and policies are advisory; some include specific goals and provisions that must be adhered to when evaluating a project under CEQA. The regional plans and policies that are relevant to the proposed project and residential variant are discussed below.

- The Plan Bay Area and Regional Housing Needs Plan, prepared by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), is a long-range land use and transportation plan for the nine-county Bay Area that covers the period from 2010 to 2040. Plan Bay Area calls for concentrating maintaining, managing, and improving the region's multimodal transportation network and proposes transportation projects and programs to be implemented from reasonably anticipated revenue. Plan Bay Area was adopted in July 2017.<sup>15</sup>
- The 2035 Regional Transportation Plan prepared by MTC is a policy document that outlines transportation projects for highway, transit, rail, and related uses through 2035 for the nine Bay Area counties.
- The Bay Area Air Quality Management District's (air district's) Bay Area 2017 Clean Air Plan requires implementation of "all feasible measures" to reduce ozone and provide a control strategy for reducing ozone, particulate matter, toxic air contaminants, and greenhouse gases. The 2017 Clean Air Plan describes the status of local air quality and identifies the emission control measures that are to be implemented.<sup>16</sup>
- The Regional Water Quality Control Board's Water Quality Control Plan for the San Francisco Bay Basin is a master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the state, including surface waters and groundwater, and includes implementation programs to achieve water quality objectives.<sup>17</sup>

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<sup>15</sup> Metropolitan Transit Commission and Association of Bay Area Governments, Plan Bay Area 2040: Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2017–2040, Final, July 26, 2017, <http://files.mtc.ca.gov/library/pub/30060.pdf>, accessed November 20, 2020.

<sup>16</sup> Bay Area Air Quality Management District, *2017 Clean Air Plan: Spare the Air, Cool the Climate*, April 19, 2017, <http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a--proposed-final-cap-vol-1-pdf.pdf?la=en>, accessed November 20, 2020.

<sup>17</sup> San Francisco Regional Water Quality Control Board, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, November 5, 2019, [https://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/planningtmdls/basinplan/web/docs/ADA\\_compliant/BP\\_all\\_chapters.pdf](https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/ADA_compliant/BP_all_chapters.pdf), accessed November 20, 2020.

Based on the size and nature of the proposed project and residential variant, no anticipated conflicts with regional plans would occur.

## D. Summary of Environmental Effects

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

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Land Use and Planning                | <input type="checkbox"/> Greenhouse Gas Emissions      | <input type="checkbox"/> Hydrology and Water Quality                   |
| <input type="checkbox"/> Aesthetics                           | <input type="checkbox"/> Wind                          | <input type="checkbox"/> Hazards and Hazardous Materials               |
| <input type="checkbox"/> Population and Housing               | <input type="checkbox"/> Shadow                        | <input type="checkbox"/> Mineral Resources                             |
| <input checked="" type="checkbox"/> Cultural Resources        | <input type="checkbox"/> Recreation                    | <input type="checkbox"/> Energy  |
| <input checked="" type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Agriculture and Forestry Resources            |
| <input type="checkbox"/> Transportation and Circulation       | <input type="checkbox"/> Public Services               | <input type="checkbox"/> Wildfire                                      |
| <input checked="" type="checkbox"/> Noise                     | <input type="checkbox"/> Biological Resources          | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> Air Quality               | <input checked="" type="checkbox"/> Geology and Soils  |  |

This initial study examines the proposed project and residential variant to identify potential effects on the environment. For each item on the initial study checklist, the evaluation considered the impacts of the proposed project and residential variant both individually and cumulatively, with the exception of greenhouse gas emissions, which are evaluated only in the cumulative context. All items on the initial study checklist that have been checked “Less than Significant Impact with Mitigation Incorporated,” “Less than Significant Impact,” “No Impact,” or “Not Applicable,” indicate that, upon evaluation, the planning department has determined that the proposed project or residential variant could not have a significant adverse environmental effect related to that topic. A discussion is included for those issues checked “Less than Significant Impact with Mitigation Incorporated” and “Less than Significant Impact” and for most items checked “No Impact” or “Not Applicable.” For all of the items checked “No Impact” or “Not Applicable” 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 Database and maps, published by the California Department of Fish and Wildlife.

For the analysis of potential cumulative effects, each environmental topic herein briefly identifies the cumulative context relevant to that topic. For example, for shadow impacts, the cumulative context would be nearby projects that could contribute to cumulative shadow effects on the same open space affected by the proposed project. In other cases, such as air quality, the context would be the San Francisco Bay Area Air Basin.

## Aesthetics and Parking

In accordance with CEQA section 21099: Modernization of Transportation Analysis for Transit-Oriented Infill Projects, aesthetics and parking shall not be considered in determining if a project has the potential to result in significant environmental effects, provided the project meets all of the following three criteria:

- a) The project is in a transit priority area;
- b) The project is on an infill site; and
- c) The project is residential, mixed-use residential, or an employment center.

The proposed project meets each of the above criteria; therefore, this initial study does not consider aesthetics or parking in determining the significance of project impacts under CEQA.<sup>18</sup>

## Automobile Delay and Vehicle Miles Traveled

In addition, CEQA section 21099(b)(1) requires the Governor’s Office of Planning and Research to develop revisions to the CEQA Guidelines to establish criteria for determining the significance of transportation impacts from projects that “promote a reduction in 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, the Governor’s Office of Planning and Research published for public review and comment its Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA,<sup>19</sup> which recommends using a vehicle-miles-traveled (VMT) metric to measure a project’s transportation impacts. On March 3, 2016, the San Francisco Planning Commission adopted the Governor’s Office of Planning and Research recommendation to use the VMT metric instead of automobile delay in evaluating the transportation impacts of projects (Resolution 19579). (Note: The VMT metric does not apply to the analysis of project impacts on non-automobile modes of travel, such as riding transit, walking, and bicycling.) Accordingly, this initial study does not contain a discussion of impacts regarding automobile delay. Instead, an impact analysis regarding VMT and induced automobile travel is provided in Section E.5, *Transportation and Circulation*, p. 66.

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<sup>18</sup> San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis for 530 Sansome Street*, March 19, 2021.

<sup>19</sup> State Office of Planning and Research, *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, [http://www.opr.ca.gov/docs/Revised\\_VMT\\_CEQA\\_Guidelines\\_Proposal\\_January\\_20\\_2016.pdf](http://www.opr.ca.gov/docs/Revised_VMT_CEQA_Guidelines_Proposal_January_20_2016.pdf), accessed November 11, 2020.

## E. Evaluation of Environmental Effects

### 1. Land Use and Planning

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>1. LAND USE AND PLANNING.</b> Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant physical environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact LU-1: The proposed project or residential variant would not physically divide an established community. (No Impact)**

Division of an established community typically involves constructing a physical barrier to neighborhood access, such as a new freeway, or removing a means of access, such as a bridge or a roadway. The proposed development would entail demolition of the existing buildings on the project site and construction of a 19-story hotel building (proposed project) or 21-story residential building (residential variant) and a four-story replacement fire station, with three below-grade levels under both buildings. Although portions of the sidewalks adjacent to the project site may be closed for periods of time during project construction, the closures would be temporary. Following construction, sidewalk access would be restored. The proposed project or residential variant would not construct a physical barrier to neighborhood access or remove an existing means of access, such as a bridge or roadway; therefore, it would not physically divide an established community. Accordingly, the proposed project or residential variant would have **no impact** with respect to physically dividing an established community, and no mitigation measures are necessary.

**Impact LU-2: The proposed project or residential variant would not cause a significant physical environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)**

Land use impacts could be considered significant if the proposed project or residential variant would conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Environmental plans and policies are those that directly address environmental issues and/or contain targets or standards that must be met in order to preserve or improve characteristics of the city's physical environment. As described in Section C, *Compatibility with Existing Zoning and Plans*, p. 39, neither the proposed project nor residential variant would conflict with any adopted environmental plan or policy, with the exception of the historic preservation policies contained in the general plan and the Accountable Planning Initiative. Physical environmental impacts resulting from these conflicts with historic preservation policies are discussed in Section E.3, *Cultural Resources*, p. 51.

To the extent that the proposed project or residential variant would conflict with certain general plan objectives and policies that are unrelated to physical environmental issues, those conflicts would be considered by decision makers as part of their decision to approve or disapprove the proposed project or residential variant independent of the CEQA environmental review process. Potential conflicts with applicable general plan objectives and policies would be analyzed and considered as part of the review of the entitlement applications required for the proposed project or residential variant independent of environmental review under CEQA. In addition, the proposed project or residential variant would not obviously or substantially conflict with any adopted environmental plan or policy, including the 2017 Clean Air Plan, San Francisco's Strategies to Address Greenhouse Gas Emissions (GHG Reduction Strategy), and the San Francisco Urban Forestry Ordinance, as discussed in Section E.7, *Air Quality*, p. 91; Section E.8, *Greenhouse Gas Emissions*, p. 126; and Section E.14, *Biological Resources*, p. 154. Therefore, the proposed project or residential variant would have a **less-than-significant** impact with regard to conflicts with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

**Impact C-LU-1: The proposed project or residential variant, in combination with cumulative projects, would not result in a significant cumulative impact related to land use and planning. (*Less than Significant*)**

Cumulative development in the project vicinity (within a 0.25-mile radius of the project site) includes projects that are either under construction or for which the planning department has a project application on file. Most of the cumulative development in the project vicinity (Table 3, p. 36, and Figure 24, p. 38,) are mixed-use projects that would include office, hotel, residential, and commercial uses. These projects would result in an intensification of land uses in the project vicinity, similar to the proposed project or residential variant. However, they would be infill projects and would be consistent with the planning vision for the area, as adopted in the Downtown Area Plan, and therefore would not result in conflicts with land use plans or policies adopted for the purpose of avoiding or mitigating environmental impacts. In addition, the cumulative projects would not combine with the proposed project or residential variant to alter the land use pattern of the immediate area or physically divide an established community. Therefore, the proposed project and residential variant, in combination with cumulative projects, would not result in cumulative land use impacts. Accordingly, cumulative impacts related to land use would be **less than significant**.

## 2. Population and Housing

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>2. POPULATION AND HOUSING.</b> Would the project:					
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

In general, a project would be considered growth inducing if its implementation would result in substantial unplanned population growth in an area, either directly or indirectly. The proposed project and residential variant would generate different employment, housing, and population numbers; therefore, they are discussed separately below.

According to the U.S. Census Bureau’s most recent American Community Survey, the City and County of San Francisco had an estimated population of about 881,549 residents, and 406,413 housing units in 2019.<sup>20</sup> San Francisco is expected to gain approximately 101,000 households and 280,000 residents between 2010 and 2040 and have a population of more than 1 million, a 35 percent increase in residential population. The American Community Survey 2015–2019 census data indicate that census tract 611, which includes the project site and immediate vicinity, has a population of 4,477 and 2,264 housing units.<sup>21</sup>

In 2015, ABAG projected that the housing need in San Francisco for 2015–2023 will be 28,869 dwelling units, consisting of 6,234 dwelling units that would be affordable to households at the very low-income level (0–50 percent of the area median income), 4,639 at the low-income level (51–80 percent), 5,460 at the moderate-income level (81–120 percent), and 12,536 above the moderate-income level (above 120 percent).<sup>22</sup> As noted above, as part of the planning process for Plan Bay Area, San Francisco identified priority development areas, which are existing neighborhoods that are near transit and appropriate for future growth. The project site is in the Downtown-Van Ness-Geary Priority Development Area, as identified in Plan Bay Area.<sup>23</sup>

<sup>20</sup> U.S. Census Bureau, *San Francisco County, California*, 2019, <https://www.census.gov/quickfacts/sanfranciscocountycalifornia>, accessed December 16, 2020.

<sup>21</sup> U.S. Census Bureau, *2019: ACS 5-Year Estimates Data Profiles, Census Tract 611*, San Francisco County, California, accessed December 16, 2020.

<sup>22</sup> Association of Bay Area Governments, *Regional Housing Need Plan for the San Francisco Bay Area: 2015–2023*, 2015, [https://abag.ca.gov/sites/default/files/2015-23\\_rhna\\_plan.pdf](https://abag.ca.gov/sites/default/files/2015-23_rhna_plan.pdf), accessed December 16, 2020.

<sup>23</sup> Association of Bay Area Governments, *Plan Bay Area, Priority Development Area ArcGIS Webviewer*, [https://www.arcgis.com/home/webmap/viewer.html?panel=gallery&suggestField=true&url=https%3A%2F%2Fservices3.arcgis.com%2FidkYWmb4wHvYPda%2Farcgis%2Frest%2Fservices%2Fpriority\\_development\\_areas\\_current%2FFeatureServer%2F0](https://www.arcgis.com/home/webmap/viewer.html?panel=gallery&suggestField=true&url=https%3A%2F%2Fservices3.arcgis.com%2FidkYWmb4wHvYPda%2Farcgis%2Frest%2Fservices%2Fpriority_development_areas_current%2FFeatureServer%2F0), accessed December 16, 2020.



Employment in San Francisco is forecast to increase by 34 percent (191,000 jobs) between 2010 and 2040, for a total of approximately 760,000 jobs.<sup>24</sup> As of October 2020, the labor force in San Francisco consisted of 581,100 jobs.<sup>25</sup>

## **PROPOSED PROJECT**

The proposed project proposes no housing. Therefore, it would not induce substantial unplanned residential population growth. The proposed project also would not indirectly induce substantial unplanned residential population growth in the project area due to infrastructure improvements because the project site is an infill site located in an urbanized area, and does not propose any extensions to area roads or other infrastructure that could enable additional development in currently undeveloped areas.

As noted above, employment in San Francisco is forecast to increase by 34 percent (191,000 jobs), for a total of approximately 760,000 jobs between 2010 and 2040.<sup>26</sup> The proposed hotel, office, fitness center, and retail/restaurant uses and replacement fire station on the project site would result in an estimated net increase of 425 jobs (180 employees for the hotel, 147 employees for the office space, 80 employees for the fitness center, 18 employees for the retail/restaurant use).<sup>27,28</sup> The proposed replacement fire station would employ 10 people with implementation of the proposed project, which is the same number of fire department staff currently employed at the existing fire station on the project site.<sup>29</sup> Employment under the proposed project is unlikely to attract new residents to San Francisco because such jobs are typically filled by existing residents in the area. Therefore, it is anticipated that most of the employees would live in San Francisco (or nearby communities) and that the proposed project would not generate demand for new housing to accommodate new employees. Even if all of the approximately 435 employees associated with the proposed project were assumed to be new to San Francisco, project-related employment growth would represent considerably less than one percent (0.2 percent) of the city's estimated job growth between 2010 and 2040. This estimated increase in employment would be negligible in the context of total jobs in San Francisco. Therefore, the proposed project would not directly or indirectly induce substantial unplanned population growth. The impact from the proposed project would be **less than significant**, and no mitigation is necessary.

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<sup>24</sup> Association of Bay Area Governments and Metropolitan Transportation Commission, Jobs-Housing Connection Strategy, May 16, 2012, [https://www.planbayarea.org/sites/default/files/pdf/JHCS/May\\_2012\\_Jobs\\_Housing\\_Connection\\_Strategy\\_Main\\_Report.pdf](https://www.planbayarea.org/sites/default/files/pdf/JHCS/May_2012_Jobs_Housing_Connection_Strategy_Main_Report.pdf), accessed: December 10, 2020.

<sup>25</sup> Employment Development Department of California, *San Francisco County Profile*, 2020, <https://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileOSResults.asp?selectedarea=San+Francisco+County&selectedindex=38&menuChoice=localAreaPro&state=true&geogArea=0604000075&countyName=>, accessed December 16, 2020.

<sup>26</sup> Association of Bay Area Governments and Metropolitan Transportation Commission, Jobs-Housing Connection Strategy, May 16, 2012, [https://www.planbayarea.org/sites/default/files/pdf/JHCS/May\\_2012\\_Jobs\\_Housing\\_Connection\\_Strategy\\_Main\\_Report.pdf](https://www.planbayarea.org/sites/default/files/pdf/JHCS/May_2012_Jobs_Housing_Connection_Strategy_Main_Report.pdf), accessed: December 10, 2020.

<sup>27</sup> City and County of San Francisco, *Transportation Impact Analysis Guidelines for Environmental Review*, October 2012, Table C-1, p. C-3. The employment projections are based on employee density factors for typical land uses. An employment density of 0.9 employees per room is used for hotel use. An employment density of 276 gsf per employee is used for office use. An employment density of 350 gsf per employee is used for retail/restaurant use.

<sup>28</sup> Witte, Nick, Project Manager, Related California, e-mail correspondence with Susan Yogi, Senior Managing Associate, Environmental Science Associates, December 22, 2020.

<sup>29</sup> DeWitt, Dawn, Assistant Deputy Chief, Support Services, San Francisco Fire Department, e-mail correspondence with Susan Yogi, Senior Managing Associate, Environmental Science Associates, December 8, 2020. The replacement fire station would employ 10 people, which is the same number of fire department staff currently employed at the existing fire station on the project site; therefore, the fire department staff are not included in the net new job total.

## **RESIDENTIAL VARIANT**

The residential variant would construct 256 residential units. The four-story replacement fire station building would remain the same for the residential variant as for the proposed project.

Based on the average household size in the City and County of San Francisco of 2.36 people per household,<sup>30</sup> the addition of 256 new residential units would increase the citywide population by approximately 605 residents.<sup>31</sup> This would represent a residential population increase of approximately 14 percent over the existing census tract population, and approximately 0.2 percent citywide. As noted above, San Francisco is expected to gain approximately 101,000 households and 280,000 residents between 2010 and 2040 and have a population of more than 1 million, a roughly 35 percent increase in the residential population. While the addition of 605 people on the project site could be noticeable to adjacent properties, this residential population growth would represent considerably less than one percent (0.2 percent) of the city's estimated population growth between 2010 and 2040. Therefore, the population introduced on the project site as a result of the residential variant would be accommodated within the planned growth for the neighborhood and the city, as a whole, and would not directly induce substantial unplanned population growth in the area.

The number of employees required to manage and maintain the proposed residential use would be negligible. The proposed replacement fire station would employ 10 people with implementation of the proposed residential variant, which is the same number of fire department staff currently employed at the existing fire station on the project site. Therefore, the residential variant would not result in a substantial increase in employment on the project site that would induce substantial unplanned population growth in the area.

The residential variant would not extend any roads or other infrastructure into areas where roads or other infrastructure currently do not exist, which could indirectly induce population growth. In addition, the residential variant would be consistent with general plan objectives and policies and Plan Bay Area goals and criteria, as it is located on an infill site, served by existing transit, and located in a priority development area. Furthermore, as discussed in Section E.12, *Utilities and Service Systems*, p. 142, and Section E.13, *Public Services*, p. 150, the population growth generated under the residential variant would not require the expansion of infrastructure or services that could cause adverse physical environmental impacts. For these reasons, the residential variant would not directly or indirectly induce substantial unplanned population growth. The impact from the residential variant would be **less than significant**, and no mitigation is necessary.

### **Impact PH-2: The proposed project or residential variant would not displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing. (No Impact)**

The proposed project or residential variant would not displace any residents or housing units since no housing units currently exist on the project site. Therefore, the proposed project or residential variant would have **no impact** related to the displacement of housing units or people and would not necessitate the construction of replacement housing, and no mitigation is necessary.

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<sup>30</sup> U.S. Census Bureau, *San Francisco County, California*, 2019, <https://www.census.gov/quickfacts/sanfranciscocountycalifornia>, accessed December 13, 2020.

<sup>31</sup> 256 residential units x 2.36 people per household = 605 new residents.

**Impact C-PH-1: The proposed project or residential variant, in combination with cumulative projects, would not result in a significant cumulative impact related to population and housing. (Less than Significant)**

The cumulative analysis includes the development projects located in the vicinity of the project site, identified in Table 3, p. 36, and mapped on Figure 24, p. 38. Most of the development projects are mixed-use projects that would include varying combinations of office, hotel, residential, commercial uses. These projects would result in an intensification of land uses in the project vicinity, similar to the proposed project or residential variant; however, they would be infill projects and would be consistent with the planning vision for the area as well as with projected regional and city-wide growth in population, housing, and employment. As described above, the proposed project or residential variant would not induce substantial direct or indirect population growth; displace a substantial number of existing housing units, people, or employees; or create demand for additional housing elsewhere. Accordingly, the proposed project or residential variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact related to population and housing, and the impact would be **less than significant**. No mitigation is necessary.

### 3. Cultural Resources

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>3. CULTURAL RESOURCES.</b> Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5, including those resources listed in article 10 or article 11 of the San Francisco Planning Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact CR-1: The proposed project or residential variant would cause a substantial adverse change in the significance of an individually eligible historical resource as defined in CEQA Guidelines section 15064.5, including those resources listed in article 10 or article 11 of the planning code. (Less than Significant with Mitigation)**

A historical resource is defined in CEQA Guidelines section 15064.5(a) as one that is listed in, or determined to be eligible for listing in, the California Register of Historical Resources (California register). In addition, a resource that (i) is identified as significant in a local register of historical resources, such as article 10 and/or article 11 of the San Francisco Planning Code, or (ii) is deemed significant due to its identification in a historical resources survey meeting the requirements of California Public Resources Code section 5024.1(g) is

presumed to be a historical resource “unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant.” Along with CEQA Guidelines section 15064.5(a), CEQA section 21084.1 also permits a lead agency to determine that a resource constitutes a historical resource even if the resource does not meet the foregoing criteria.

A property may be considered a historical resource if it meets any of the California register criteria related to (1) events, (2) persons, (3) architecture, or (4) information potential, that make it eligible for listing in the California register, or if it is considered a contributor to a potential historic district. The California register criteria, which are based on the criteria established by the National Park Service for the National Register of Historic Places (national register), include the following:

- **Criterion 1 (Event):** Resources that are associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California.
- **Criterion 2 (Person):** Resources that are associated with the lives of persons important to local history.
- **Criterion 3 (Design/Construction):** Resources that embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values.
- **Criterion 4 (Information Potential):** Resources or sites that have yielded or have the potential to yield information important in prehistory or history.

To be considered a historical resource, a property must be historically significant and retain sufficient integrity to convey that significance. Integrity is defined as the ability of a property to convey its significance.<sup>32</sup> There are seven aspects of integrity:

- **Location** – where the historic property was constructed or the place where the historic event occurred;
- **Design** – the combination of elements that create the form, plan, space, structure, and style of property;
- **Setting** – the physical environment of a historic property;
- **Materials** – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;
- **Workmanship** – physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
- **Feeling** – a property’s expression of the aesthetic or historic sense of a particular period of time; and
- **Association** – the direct link between an important historic event or person and a historic property.

Additionally, properties that are not listed in the California register but are otherwise determined to be historically significant, based on substantial evidence, would also be considered historical resources.

A substantial adverse change is defined in CEQA Guidelines section 15064.5 as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance

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<sup>32</sup> National Park Service, National Register Bulletin: How to Apply the National Register Criteria for Evaluation,” [https://www.nps.gov/subjects/nationalregister/upload/NRB-15\\_web508.pdf](https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf), accessed March 4, 2021.

of a historical resource would be materially impaired.” The significance of a historical resource is materially impaired, according to CEQA Guidelines section 15064.5(b)(2), when a project:

- (A) *Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or*
- (B) *Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources, unless the public agency reviewing the effects of the project establishes a preponderance of evidence that the resource is not historically or culturally significant; or*
- (C) *Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.*

The proposed project or residential variant would demolish three buildings on the project site: 425 Washington Street (constructed between 1906 and 1907), 439–445 Washington Street (constructed between 1906 and 1907), and 530 Sansome Street (constructed in 1975). In evaluating whether the proposed project or the residential variant would cause a substantial adverse change in the significance of a historical resource, the planning department must first determine whether the existing buildings on the project site are historical resources. The information and analysis included in this section are based on the *Historical Evaluation of 425 and 439–445 Washington Street, Preservation Team Review Form* for the 425 and 439–445 Washington Street buildings, *Final Historic Resource Evaluation Report Part I 530 Sansome Project* (HRE Part I), *Historic Resource Evaluation Response Part I* (HRER Part I), *Historic Resource Evaluation Response Part II* (HRER Part II).<sup>33</sup> The HRE, preservation team review form, and HRERs are attached as Appendix A to this initial study.

#### **425 AND 439–445 WASHINGTON STREET**

A historic evaluation was prepared for 425 and 439–445 Washington Street in 2017 to assist the planning department in determining whether the existing buildings are historical resources and is attached as Appendix A1 to this initial study. On February 12, 2021, the planning department concurred with the findings of the historic evaluation and determined that neither 425 Washington Street nor 439–445 Washington Street are eligible for listing in the California register under any criteria either individually or as part of a historic district, as summarized below (see Appendix A2).<sup>34</sup>

The 425 Washington Street property is a three-story commercial building of brick construction with frontage on Washington and Merchant streets. It was constructed in ca. 1906–07 for Rudolph Jordan and was designed by architect S.H. Woodruff. While archival research suggests that the building would be significant as one of the few remaining buildings associated with San Francisco’s wholesale produce market, both façades have been extensively altered; therefore, it does not retain sufficient integrity to convey its individual significance under Criterion 1. None of the owners or occupants, including chemist and assayer Abbott A. Hanks who ran a laboratory in the building from 1907 to 1910, were found to have made lasting contributions to local, state,

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<sup>33</sup> William Kostura, *Historic Evaluation of 425 and 439–445 Washington Street, San Francisco*, May 2017; Environmental Science Associates, *Final Historic Resource Evaluation Report Part I, 530 Sansome Street Project*, September 2020; San Francisco Planning Department, *Historic Resource Evaluation Response for 530 Sansome Street, Part I*, December 3, 2020; San Francisco Planning Department, *Part II Historic Resource Evaluation Response for 530 Sansome Street*, December 18, 2020.

<sup>34</sup> San Francisco Planning Department, *Preservation Team Review Form: 425, 439–441 Washington Street (Block 0206 / Lots 013, 014)*, February 12, 2021.

or national history or cultural heritage; therefore, the building is not individually eligible under Criterion 2. Due to extensive alterations completed in 1966, 425 Washington Street is not individually eligible under Criterion 3 as a significant example of early twentieth-century commercial architecture, nor is the 1966 remodel designed by Harada and Meu a significant example of modern design. The building is not an example of a rare building type, and it is therefore not individually eligible under Criterion 4.

The 439–445 Washington Street property is a two-story commercial building of brick construction with frontage on Washington and Merchant streets. Like its neighbor, it was constructed in ca. 1906-07 by the Woodruff Company (and was likely designed by architect S.H. Woodruff). While the building's early occupants had tangential relationships to the neighboring wholesale produce market, these associations are neither direct nor continuous; therefore, it is not individually eligible under Criterion 1. None of the owners or occupants, including the long-running restaurant The Rainbow Club (1944-68) and the well-known restaurant The Iron Pot (1982-89), were found to have made lasting contributions to local, state, or national history or cultural heritage; therefore, the building is not individually eligible under Criterion 2. Due to extensive alterations completed in 1967, 439–445 Washington Street is not individually eligible under Criterion 3 as a significant example of early twentieth-century commercial architecture, nor is the 1967 remodel designed by architect Gilbert Oliver a significant example of modern design. The building is not an example of a rare building type, and it is therefore not individually eligible under Criterion 4.

The 425 and 439–445 Washington Street buildings are located south of the Jackson Square Article 10 Landmark District, and the planning department determined that the boundaries of the district should not be extended to include either or both of the subject buildings.

For these reasons, the 425 and 439–445 Washington Street buildings are not considered historical resources under CEQA.

### **530 SANSOME STREET AND SCULPTURE UNTITLED**

A historic resource evaluation (HRE) Part I was prepared for 530 Sansome Street in 2020, and attached as Appendix A3 to this initial study. The planning department determined that while the 530 Sansome Street is not individually eligible for listing in the California register under any criteria, the sculpture *Untitled*, which is installed on the building's north façade (adjacent to Washington Street), is individually eligible under Criterion 3 as an object that is an important site-specific work by master artist Henri Marie-Rose.<sup>35</sup> These findings are summarized below. Furthermore, the planning department determined that 530 Sansome Street and the sculpture *Untitled* are contributors to the eligible Embarcadero Center Historic District, which is analyzed under Impact CR-2.

Fire Station 13 located at 530 Sansome Street is a three-story (or two-story-plus-mezzanine) building of reinforced concrete construction with frontage on Sansome, Washington, and Merchant streets. It was constructed in 1975 and replaced an earlier fire station whose demolition was necessitated by the construction of Embarcadero Center. The architect was John C. Portman, Jr., the designer of Embarcadero Center 1-5, in collaboration with City Architect Charles W. Griffith. While linked to the development history of Embarcadero Center (which was, in turn, a component of the larger Golden Gateway Redevelopment Area), the construction of 530 Sansome Street is located outside of the redevelopment area and separated by a few blocks from Embarcadero Center 1-5. As such, the building “represents the replacement of a single civic structure essential to the normal operation, infrastructure, and safety of the city ... is one of numerous fire

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<sup>35</sup> San Francisco Planning Department, *Historic Resource Evaluation Response for 530 Sansome Street, Part I*, December 3, 2020.

stations built over the years (including several that remain extant in the downtown area) and was built out of unanticipated necessity rather than part of any Fire Department comprehensive plan.” Therefore, it is not individually eligible under Criterion 1. None of the individuals or occupants associated with the property were found to have made lasting contributions to local, state, or national history or cultural heritage that would rise to the level of individual significance for eligibility under Criterion 2. Though 530 Sansome Street embodies some of the character-defining features common to Brutalist architecture (as identified in the San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement), it is a utilitarian interpretation of the style. Furthermore, it is an undistinguished example within Portman’s body of work, which includes many exceptional examples of Brutalism. For these reasons, it is not individually eligible under Criterion 3. The building is not an example of a rare building type, and it is therefore not individually eligible under Criterion 4.

On the north façade of 530 Sansome Street is a wall-mounted sculpture by artist Henri Marie-Rose named *Untitled*. The three-dimensional copper sculpture depicts firefighters with a hose battling a blaze next to the letters “SFFD.” The sculpture is not emblematic of a specific artistic movement or broad pattern of history, and it is not individually eligible under Criterion 1. Aside from Marie-Rose, who is best addressed under Criterion 3 below, the sculpture is not associated with individuals who have made lasting contributions to local, state, or national history or cultural heritage, and it is not individually eligible under Criterion 2. *Untitled*, which was commissioned by the San Francisco Arts Commission as a site-specific artwork and has been exhibited in place continuously since its installation in 1976, is believed to be the last surviving public artwork by Marie-Rose, a master artist, in San Francisco and was also his highest-earned public commission. For these reasons, *Untitled* is individually eligible under Criterion 3. Criterion 4 is not addressed in the HRER Part I. The sculpture, as an individual object, is therefore considered a historical resource under CEQA. Its period of significance is 1976, and its character-defining features include its visually prominent position on a building occupying a corner location that is also a fire station, copper construction, verdigris (i.e., patina), and overall design that includes abstract figures and typographic elements.

The demolition of the 530 Sansome Street building would completely remove the physical context of the site-specific sculpture *Untitled*, and the sculpture would be relocated and reinstalled in a new location on the proposed project or residential variant (the exact location is to be determined). Therefore, the proposed project or residential variant have the potential to result in a significant impact on a historical resource. To reduce this potentially significant impact to a less than significant level, the project sponsor would be required to implement **Mitigation Measure M-CR-1, Interpretation and Relocation Plan**.

### **Mitigation Measure M-CR-1: Interpretation and Relocation Plan**

***Interpretation for Untitled Sculpture.*** The project sponsor shall facilitate the development of an interpretive program focused on the history and design of the *Untitled* sculpture. The interpretive program shall be developed and implemented by a qualified professional with demonstrated experience in displaying information and graphics to the public, such as a museum or exhibit curator. The primary goal of the program is to educate the public about the sculpture, the work of artist Henri Marie-Rose, and the historical association of the sculpture with the Embarcadero Center and Fire Station 13.

This program shall be initially outlined in a proposal for an Historic Resources Public Interpretive Plan (HRPIP) subject to review and approval by planning department preservation staff. The HRPIP shall lay out the various components of the interpretive program that shall be developed in

consultation with an architectural historian who meets the Secretary of the Interior's Professional Qualification Standards and approved by planning department staff prior to issuance of a site permit or demolition permit.

The interpretative program shall include the installation of a permanent on-site interpretive display. All interpretative material shall be publicly available. For physical interpretation the plan shall include the proposed format and accessible location of the interpretive content, as well as high-quality graphics and written narratives. The interpretative plan may also explore contributing to digital platforms that are publicly accessible, such as the History Pin website or phone applications. Interpretive material could include elements such as virtual museums and content, such as oral history, brochures, and websites. The interpretative program should also coordinate with other interpretative programs currently proposed or installed in the vicinity or for similar resources in the city, such as the San Francisco Fire Department Museum.

The HRPIP shall be approved by planning department preservation staff prior to issuance of the architectural addendum to the site permit. The detailed content, media and other characteristics of such interpretive program shall be approved by planning department preservation staff prior to issuance of a temporary certificate of occupancy.

**Relocation Plan for Untitled Sculpture.** Prior to issuance of the architectural addendum to the site permit, the project sponsor shall provide a relocation plan to be reviewed and approved by the planning department to ensure that the sculpture will be removed from the building, transported, and stored during construction in a manner that will protect the historical resource. The relocation plan shall identify the storage location for the sculpture and storage and monitoring protocols. The sculpture shall be relocated to the exterior of the new fire station portion of the project, either along its north (Washington Street) or south (Merchant Street) façades; or, if approved by planning department preservation staff, to another prominent publicly accessible location on the project site. The relocation plan shall also include an initial reinstallation plan and maintenance plan for the sculpture and schedule for reviewing and finalizing those plans in consultation with planning department preservation staff prior to issuance of temporary certificate of occupancy.

Implementation of Mitigation Measure M-CR-1 would reduce the severity of the proposed project and residential variant's impacts on individual historic resources to a **less-than-significant level with mitigation**.

## **OTHER CONSTRUCTION-RELATED IMPACTS**

Construction activities at the project site would generate vibration that could potentially cause structural damage to adjacent and nearby buildings. As described under Impact NO-3, p. 102, drilling and compaction activities would occur as close as 5 feet from 447 Battery Street, which is the closest historic structure to the project site. The groundborne vibration levels would exceed the Caltrans criterion of 0.25 peak particle velocity (PPV) for historic structures. Therefore, the proposed project could result in structural damage to 447 Battery Street and has the potential to result in a significant impact on a historical resource. Implementation of **Mitigation Measure M-NO-3, Protection of Adjacent Buildings/Structures and Vibration Monitoring during Construction**, p. 105, would reduce the vibration impact to a less-than-significant level.

**Mitigation Measure M-NO-3: Protection of Adjacent Buildings/Structures and Vibration Monitoring during Construction** (see Impact NO-3)



Implementation of Mitigation Measure M-NO-3 would reduce or eliminate the likelihood of structural damage to the building at 447 Battery Street. Therefore, the proposed project or residential variant would not result in a significant impact on a historical resource from construction-related groundborne vibration. This impact would be **less than significant with mitigation**.

**Impact CR-2: The proposed demolition and removal of contributors would not materially alter, in an adverse manner, the physical characteristics of the Embarcadero Center Historic District that justify its eligibility for inclusion in the California Register of Historical Resources. (Less than Significant)**

The HRER Part I identifies a discontinuous Embarcadero Center Historic District that is eligible for listing in the California register under Criterion 3 as a distinguishable complex whose buildings were designed by master architect John C. Portman, Jr., in the Brutalist style (see Appendix A4). The historic district is characterized in the HRER Part I as follows:

*The Planning Department previously found that Embarcadero Center 1-5 was eligible for listing as a complex, based largely on the [San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement] and a history/context document prepared by Page & Turnbull [i.e., Embarcadero Center Lobbies Historic Structures Report “Lite,” completed in July 2018]. Though the Department did not assess the fire station at that time, given its inseparable link to the development of the overall Embarcadero Center, shared architect, and common embodiment of Brutalism, 530 Sansome appears to be contributory to a discontinuous Embarcadero Center Historic District eligible under Criteria [sic] 3. Such a district would be composed of [Embarcadero Center] 1-5 and 530 Sansome, all of which would be contributory, with a period of significance ranging from 1971 [to] 1982 (representing the completion of the first structure through the last). The boundaries of this discontinuous district would include the 530 Sansome parcel, as well those [sic] for [Embarcadero Center] 1-5.<sup>36</sup>*

The HRER Part I concludes that 530 Sansome Street and the sculpture *Untitled* are contributors to the eligible Embarcadero Center Historic District, which is considered to be a historical resource under CEQA.<sup>37</sup>

While the proposed project or residential variant would demolish 530 Sansome Street and remove/relocate the sculpture *Untitled* from its site-specific location, this would not render the Embarcadero Center Historic District ineligible for the California register. As described above, the district is architecturally significant, and this significance is primarily linked to Embarcadero 1-5, a concentration of high-style Brutalist buildings that is not adjacent to the project area. In the HRER Part II issued on December 18, 2020, the planning department concluded that while both the building and sculpture contribute to and are part of the Embarcadero Center, they are not elements of its design as initially conceived, which consisted of four interconnected mixed-use towers and a hotel (see Appendix A5). While the demolition of 530 Sansome Street and relocation of the sculpture would remove this example of Portman’s work, the demolition of the fire station would not significantly adversely impact Embarcadero 1-5.<sup>38</sup> Because Embarcadero 1-5 would not be affected by the proposed project or residential variant, the Embarcadero Center Historic District would continue to convey its historical significance, and the demolition of 530 Sansome Street and relocation of *Untitled* would result in a **less-than-significant** impact on the eligible Embarcadero Center Historic District.

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<sup>36</sup> San Francisco Planning Department, *Historic Resource Evaluation Response Part I: 530 Sansome Street*, December 3, 2020.

<sup>37</sup> *Ibid.*

<sup>38</sup> San Francisco Planning Department, *Historic Resource Evaluation Response Part II: 530 Sansome Street*, December 18, 2020.

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

The proposed project or residential variant would require excavation of approximately 28,000 cubic yards of soil to a depth of approximately 40 feet bgs. The planning department conducted a preliminary archeological review of the project site to determine the potential for the proposed project to impact archeological resources.<sup>39</sup>

Although no known CEQA-related significant archaeological resources have been recorded within the project area and some archeological resources may have been damaged by the installation of the existing basements,<sup>40</sup> geotechnical analysis and archival research show that there is potential for encountering buried prehistoric archeological resources, historical archeological resources, and buried maritime resources. The proposed project or residential variant would result in excavation to approximately 40 feet bgs and would extend through artificial fill, bay mud, and the sand layer above old bay clay. If auger-cast-in-place piles are used for the foundation system, they would extend to a depth of approximately 90 feet through artificial fill, bay mud, sand, old bay clay, and into bedrock. Although some archeological resources (particularly late 19th century resources) may have been damaged by the installation of the existing basements and other disturbances, there is the potential for archeological resources below the existing basement level, including those that may have been buried during a series of fires that burned the waterfront in the early 1850s. There is also potential for prehistoric resources that were submerged between 6,000 and 2,000 years ago. Ground-disturbing construction activity could therefore result in significant impacts to these potential archeological resources. To reduce impacts on archeological resources, the project sponsor would be required to implement **Mitigation Measure M-CR-3, Archeological Testing**.

**Mitigation Measure M-CR-3: Archeological Testing**

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 proposed project on buried or submerged historical resources and on human remains and associated or unassociated funerary objects. The project sponsor shall retain the services of an archeological consultant from the rotational qualified archeological consultants list maintained by the planning department's archeologist who specializes in geoarchaeology and maritime resources. After the first project approval action or as directed by the Environmental Review Officer, the project sponsor shall contact the department archeologist to obtain the names and contact information for the next three archeological consultants on the qualified archeological consultants list.

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. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of

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<sup>39</sup> San Francisco Planning Department, *Preliminary Archeological Review: 530 Sansome Street*, October 5, 2020. Unless otherwise noted, the site description is based on this preliminary review.

<sup>40</sup> *Ibid.*

the project for up to a maximum of four weeks. At the direction of the Environmental Review Officer, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means for reducing potential effects on a significant archeological resource, as defined in CEQA Guidelines sections 15064.5 (a) and (c) to a less-than-significant level.

**Consultation with Descendant Communities.** On discovery of an archeological site associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group an appropriate representative of the descendant group and the Environmental Review Officer shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the Environmental Review Officer regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the final archeological resources report shall be provided to the representative of the descendant group.

**Archeological Testing Program.** The archeological consultant shall prepare and submit to the Environmental Review Officer for review and approval an archeological testing plan. The archeological testing program shall be conducted in accordance with the approved archeological testing plan.

Testing shall include monitoring of basement demolition, trenching from the base of basement to 20 feet for historical resources and coring to Old Bay Clay to test for submerged resources.

The archeological testing plan shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an 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 Environmental Review Officer. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the Environmental Review Officer in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include preservation in place, 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 Environmental Review Officer or the planning department archeologist.

If the Environmental Review Officer determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, the Environmental Review Officer, in consultation with the project sponsor shall determine whether preservation of the resource in place is feasible. If so, the proposed project shall be redesigned so as to avoid any adverse effect on the significant archeological resource. If preservation in place is not feasible, a data recovery program shall be implemented, unless the Environmental Review Officer determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

**Archeological Monitoring Program.** If the Environmental Review Officer in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented the archeological monitoring program shall include, at a minimum, the following provisions:

- The archeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archeological monitoring program reasonably prior to any project-related soils disturbing activities commencing. The Environmental Review Officer in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archeological resources and to their depositional context;
- The archeological consultant shall undertake a worker training program for soil-disturbing workers that will include an overview of 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 according to a schedule agreed upon by the archeological consultant and the Environmental Review Officer until the Environmental Review Officer 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, irrespective of whether an archeologist is present, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. The archeological consultant shall immediately notify the Environmental Review Officer 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 Environmental Review Officer.

Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the Environmental Review Officer.

**Archeological Data Recovery Program.** The archeological data recovery program shall be conducted in accord with an archeological data recovery plan. The archeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archeological data recovery plan prior to preparation of a draft archeological data recovery plan. The archeological consultant shall submit a draft archeological data recovery plan to the Environmental Review Officer. The archeological data recovery plan shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the archeological data recovery plan will identify what scientific/historical research

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

The scope of the archeological data recovery plan shall include the following elements:

- Field Methods and Procedures. Descriptions of proposed field strategies, procedures, and operations.
- Cataloguing and Laboratory Analysis. Description of selected cataloguing system and artifact analysis procedures.
- Discard and Deaccession Policy. Description of and rationale for field and post-field discard and deaccession policies.
- Interpretive Program. Consideration of an on-site/off-site public interpretive program during the course of the 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 Associated or Unassociated Funerary Objects.*** The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and federal laws. This shall include immediate notification of the Office of the Chief Medical Examiner of the City and County of San Francisco and, in the event of the medical examiner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission, which will appoint a most likely descendant. The most likely descendant will complete his or her inspection of the remains and make recommendations or preferences for treatment within 48 hours of being granted access to the site (Public Resources Code section 5097.98). The Environmental Review Officer also shall be notified immediately upon the discovery of human remains.

The project sponsor and Environmental Review Officer shall make all reasonable efforts to develop a Burial Agreement ("Agreement") with the most likely descendant, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and associated or unassociated funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). The Agreement shall take into consideration the appropriate excavation, removal, recordation, scientific analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. If the most likely descendant agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archeological consultant shall retain possession of the remains and associated or unassociated funerary objects until completion of any such analyses, after which the remains and associated or unassociated funerary objects shall be reinterred or curated as specified in the Agreement.

Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the Environmental Review Officer to accept treatment recommendations of the most likely descendant. However, if the Environmental Review Officer, project sponsor and most likely descendant are unable to reach an Agreement on scientific treatment of the remains and associated or unassociated funerary objects, the Environmental Review Officer, with cooperation of the project sponsor, shall ensure that the remains and/or mortuary materials are stored securely and respectfully until they can be reinterred on the property, with appropriate dignity, in a location not subject to further or future subsurface disturbance.

Treatment of historic-period human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity, additionally, shall follow protocols laid out in the project's archeological treatment documents, and in any related agreement established between the project sponsor, medical examiner and the Environmental Review Officer.

**Final Archeological Resources Report.** The archeological consultant shall submit a final archeological resources report to the Environmental Review Officer 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. The final archeological resources report shall include a curation and deaccession plan for all recovered cultural materials. The final archeological resources report shall also include an Interpretation Plan for public interpretation of all significant archeological features.

Copies of the final archeological resources report shall be sent to the Environmental Review Officer for review and approval. Once approved by the Environmental Review Officer, the consultant shall also prepare a public distribution version of the final archeological resources report. Copies of the final archeological resources report shall be distributed as follows: California Archeological Site Survey Northwest Information Center shall receive one (1) copy and the Environmental Review Officer shall receive a copy of the transmittal of the final archeological resources report to the Northwest Information Center. The Environmental Planning Division of the planning department shall receive one bound and one unlocked, searchable PDF copy on CD of the final archeological resources report along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of public interest in or the high interpretive value of the resource, the Environmental Review Officer may require a different or additional final report content, format, and distribution than that presented above.

With implementation of Mitigation Measure M-CR-2, the impact on prehistoric or historical archeological resources from construction of the proposed project or residential variant would be ***less than significant with mitigation***.

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

There are no known or suspected human remains, including those interred outside of formal cemeteries, located in the immediate vicinity of the project site. In the unlikely event that human remains are encountered during construction, any inadvertent damage to human remains would be considered a significant impact. Mitigation Measure M-CR-2, Archeological Testing, includes the required procedures to

address, protect, and treat human remains should any be discovered during construction. With implementation of Mitigation Measure M-CR-2, as described above, the proposed project and residential variant's impacts on human remains would be **less than significant with mitigation**.

**Impact C-CR-1: The proposed project or residential variant, in combination with cumulative projects, would result in demolition and/or alteration of a historical resource, as defined in CEQA Guidelines section 15064.5. (Less than Significant)**

Table 3, p. 36, and mapped on Figure 24, p. 38, identifies development projects located within a 0.25-mile radius of the project site. These include alterations to historical resources at 900 Sansome and 400 California streets. The building at 900 Sansome Street is located within the Northeast Waterfront (an article 10 landmark district), and that project would renovate and change the use of a historic parking garage to an office building while rehabilitating the building envelope. The 400 California Street project would convert ground-floor space in the Bank of America Building (San Francisco Landmark No. 3 and a category I significant building under article 11 of the planning code) and the addition at 430 California Street (determined individually eligible for listing on the California register) to office space. The planning department determined that the project conforms with the Secretary of the Interior's Standards for Rehabilitation and would therefore result in no adverse impact to historic architectural resources.<sup>41</sup>

One additional project is considered in this analysis, which includes alterations of the Embarcadero Center's four office tower lobbies. These alterations were found to be consistent with the Secretary of the Interior's Standards for Rehabilitation and therefore did not result in a significant adverse impact on the Embarcadero Center Historic District.<sup>42</sup> In addition, none of the cumulative development projects are located within the boundaries of the discontinuous Embarcadero Center Historic District. Based on the above analysis, the planning department has determined that the concentration of cumulative projects would not affect historic fabric or character such that the Embarcadero Center Historic District would no longer be eligible for listing on the California register. Also, as discussed above under Impact CR-2, the proposed project or residential variant, which would demolish one district contributor and relocate one district contributor, would result in a less-than-significant impact on the Embarcadero Center Historic District. Therefore, the proposed project or residential variant would not contribute to a substantial adverse cumulative change to the Embarcadero Center Historic District and cumulative impacts would be less than significant. The Embarcadero Center lobby project, 900 Sansome Street project, and 400 California Street project would not result in direct or indirect impacts to the sculpture *Untitled*, which is an individual historical resource that would be relocated within the project site as part of the proposed project. Therefore, cumulative impacts would be less than significant.

As described under Impact CR-1, construction activities could generate vibration that can potentially damage the building at 447 Battery Street, the closest historic structure to the project site. With the exception of the 447 Battery Street project, no other cumulative projects would be within 25 feet of the project site such that construction vibration impacts would damage historic structures. Under cumulative conditions, the 447 Battery Street project would demolish the existing historic building and construct a new hotel building with ground-floor retail. As such, the 447 Battery Street project would not be a historic building under cumulative conditions. Therefore, the proposed project or residential variant would not combine with cumulative projects to create a significant impact on historic resources. Therefore, cumulative impacts would be **less than significant**.

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<sup>41</sup> San Francisco Planning Department, *Preservation Team Review Form: 430 California Street (Block 0239 / Lot 029)*, June 12, 2018.

<sup>42</sup> San Francisco Planning Department, *Historic Resource Evaluation Response Part II: 530 Sansome Street*, December 18, 2020.

**Impact C-CR-2: The proposed project and residential variant, in combination with cumulative projects, would not result in significant cumulative impacts archeological resources and human remains. (Less than Significant)**

Project-related impacts on archeological resources and human remains are site-specific and generally limited to a project’s construction area. For these reasons, the proposed project and residential variant, in combination with other reasonably foreseeable future projects, would not have a significant cumulative impact on archeological resources or human remains. This impact would be **less than significant**.

**4. Tribal Cultural Resources**

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>4. TRIBAL CULTURAL RESOURCES.</b> Would the project:					
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact TCR-1: The proposed project or residential variant could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code section 21074. (Less than Significant with Mitigation)**

Pursuant to CEQA section 21074, tribal cultural resources 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 California register or (b) included in a local register of historical resources as defined in CEQA section 5020.1(k).



Pursuant to CEQA section 21080.3.1(d), on November 9, 2020, the planning department contacted Native American individuals and organizations for the San Francisco area, providing a description of the proposed project and residential variant and requesting comments on the identification, presence, and significance of tribal cultural resources in the project vicinity.<sup>43</sup> During the 30-day comment period, no Native American tribal representatives contacted the planning department to request consultation.

Based on discussions with Native American tribal representatives, in San Francisco, prehistoric archeological resources are presumed to be potential tribal cultural resources. A tribal cultural resource is adversely affected when a project impacts its significance. As noted under Impact CR-2, the proposed project or residential variant has potential for buried prehistoric archeological resources below the existing basement level.

However, as discussed under Impact CR-2, a disturbance of previously unidentified archeological resources, which is presumed to be a tribal cultural resource, would be considered a significant impact. If a potential tribal cultural resource is discovered during construction, the project sponsor would be required to implement **Mitigation Measure M-TCR-1: Tribal Cultural Resources Archeological Resource Preservation Plan and/or Interpretive Program.**

#### **Mitigation Measure M-TCR-1: Tribal Cultural Resources Archeological Resource Preservation Plan and/or Interpretive Program**

In the event of the discovery of an archeological resource of Native American origin, the Environmental Review Officer, the project sponsor, and the tribal representative, shall consult to determine whether preservation in place would be feasible and effective. If it is determined that preservation-in-place of the tribal cultural resource would be both feasible and effective, then the archeological consultant shall prepare an archeological resource preservation plan, which shall be implemented by the project sponsor during construction. If the ERO in consultation with the project sponsor and the tribal representative determines that preservation-in-place of the TCR is not a sufficient or feasible option, then archeological data recovery shall be implemented as required by the ERO in consultation with tribal representative. In addition, the project sponsor shall prepare an interpretive program of the TCR in consultation with affiliated Native American tribal representatives. The plan shall identify 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, cultural displays and interpretation, and educational panels or other informational displays. Upon approval by the ERO and the tribal representative, and prior to project occupancy, the interpretive program shall be implemented by the project sponsor.

Implementation of Mitigation Measure M-TCR-1 would require the appropriate involvement of concerned Native Americans in the treatment of tribal cultural resources discovered during construction and ensure that any such resource would be preserved, or that the information it represents would be preserved and interpreted to the public. These steps would ensure that project excavation would not cause a substantial adverse change in the significance of tribal cultural resources that could be encountered during construction, and that the proposed project or residential variant's impact would be **less than significant with mitigation.**

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<sup>43</sup> San Francisco Planning Department, *Tribal Notification Regarding Tribal Cultural Resources and CEQA*, November 9, 2020.

**Impact C-TCR-1: The proposed project or residential variant, in combination with cumulative projects, would not result in significant cumulative impacts to tribal cultural resources. (Less than Significant)**

Project-related impacts on tribal cultural resources are site-specific and generally limited to a project’s construction area. For these reasons, the proposed project or residential variant, in combination with other reasonably foreseeable future projects, would not have a significant cumulative impact on tribal cultural resources. Therefore, this impact would be less than significant, and no mitigation measures are required.

## 5. Transportation and Circulation

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>5. TRANSPORTATION AND CIRCULATION.</b> Would the project:					
a) Involve construction that would require a substantially extended duration or intensive activity, the effects of which would create potentially hazardous conditions for people walking, bicycling, or driving, or public transit operations; or interfere with emergency access or accessibility for people walking or bicycling; or substantially delay public transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create potentially hazardous conditions for people walking, bicycling, or driving or public transit operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Interfere with accessibility of people walking or bicycling to and from the project site, and adjoining areas, or result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially delay public transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Cause substantial additional vehicle miles travelled or substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow travel lanes) or by adding new roadways to the network?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Result in a loading deficit, the secondary effects of which would create potentially hazardous conditions for people walking, bicycling, or driving; or substantially delay public transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
g) Result in a substantial vehicular parking deficit, the secondary effects of which would create potentially hazardous conditions for people walking, bicycling, or driving; or interfere with accessibility for people walking or bicycling or inadequate access for emergency vehicles; or substantially delay public transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The discussion of transportation and circulation impacts provided below is based on the transportation study prepared for the proposed project and residential variant, which is included as Appendix B to this initial study.<sup>44</sup>

The proposed project or residential variant would satisfy the eligibility criteria for a “transit-oriented infill project” under CEQA section 21099(d)(1) because it would consist of residential, mixed-use residential, or employment center uses; would be located on an infill site; and would be located within a transit priority area.<sup>45</sup> Therefore, the proposed project and residential variant would be exempt from an analysis of impacts on (automobile) parking under CEQA. Furthermore, the proposed project and residential variant would meet the map-based screening criterion for VMT impacts as discussed below, thereby exempting it from analyzing secondary impacts related to parking, including potentially hazardous conditions for people walking, bicycling, or driving; interference with accessibility for people walking or bicycling; inadequate access for emergency vehicles; and substantial delay for public transit. For these reasons, topic E.5(g) is not applicable to the proposed project and residential variant and is not discussed further in this initial study.

## TRANSPORTATION SETTING

The transportation study area includes the block and adjacent intersections bordered by Washington Street to the north, Clay Street to the south, Sansome Street to the west, and Battery Street to the east. Access to the project site by transit, on foot, or by bicycle is available from existing bus transit services, sidewalks, streets, and crosswalks near the site.

The proposed project or residential variant is estimated to be operational in 2024. The long-term effects of the ongoing COVID-19 pandemic on the transportation system are unknown at this time. Thus, it would be unreasonable to speculate how the transportation system and travel behavior could change in the future at the time the proposed project or residential variant is operational. For these reasons, the analysis in this initial study relies on transportation data and conditions prior to COVID-19 to establish existing conditions near the project site and estimate the proposed project and residential variant's travel demand.

Intersection counts were collected on August 23, 2017 during the p.m. peak period (4 p.m. to 6 p.m.) at intersections located within the proposed project transportation study area as part of the adjacent 447

<sup>44</sup> Fehr & Peers, *530 Sansome Street Transportation Study*, April 2, 2021.

<sup>45</sup> San Francisco Planning Department, *Eligibility Checklist: CEQA section 21099 Modernization of Transportation Analysis*, March 19, 2021.

Battery Street project.<sup>46,47</sup> The study area intersections for these counts are: Battery and Washington streets, Battery and Clay streets, Sansome and Washington streets, and Sansome and Clay streets. In addition to the observations conducted on August 23, 2017, a qualitative evaluation of existing conditions was conducted during a site visit on November 24, 2020.

**Roadways.** Battery Street is designated as a secondary arterial roadway in the San Francisco General Plan and a Downtown Commercial street in the Better Streets Plan, oriented in the north–south direction, running between The Embarcadero/Lombard Street and Market Street/Bush Street. Sansome Street is a secondary arterial roadway and a Downtown Commercial street, oriented in the north–south direction, running between The Embarcadero/ Chestnut Street and Sutter Street/Market Street. Washington Street is a major arterial and a Downtown Commercial street, oriented in the east–west direction, running between The Embarcadero along the northeast waterfront and Arguello Boulevard in Presidio Heights and passing through the Financial District, Chinatown, Nob Hill, and Pacific Heights. Clay Street is a Major Arterial and a Downtown Commercial street, oriented in the east–west direction, running between Drumm Street in the Financial District and Arguello Boulevard in Presidio Heights, passing through Chinatown, Nob Hill, and Pacific Heights. Merchant Street does not have a San Francisco General Plan designation, but is designated as an alley in the Better Streets Plan and is oriented in the east–west direction, running between Battery and Kearny streets. An intermediate segment of Merchant Street east of the project site was vacated with development of the Transamerica Pyramid meaning the street now consists of two unconnected segments.

During the p.m. peak hour, vehicle volumes are similar along all four streets adjacent to the block the project site is located on: Washington Street, Clay Street, Battery Street, and Sansome Street. During the p.m. peak hour, Washington Street was observed to carry the lowest traffic volumes (450 to 550 vehicles), while vehicles Battery Street was observed to carry the highest traffic volumes (850 to 950 vehicles) A keep clear zone on Sansome Street in front of Fire Station 13 maintains unobstructed access by the fire department during periods of heavy traffic. Vehicle queues were not observed to extend between intersections within the study area. The observed number of heavy vehicles (i.e., trucks), as a percentage of overall traffic volume at study intersections in the p.m. peak varies from less than five percent on Battery and Washington streets to 10 to 25 percent on Sansome Street (10 percent in the northbound direction and 25 percent in the southbound direction).

**Bicycle Facilities.** The study area is crossed by a class III (shared lanes) bicycle route couplet.<sup>48</sup> The northbound route of this couplet travels north on Sansome Street and turns to the west at Washington Street adjacent to the project site. The southbound route of this couplet travels east on Clay Street before turning to the south at Battery Street. This bicycle route serves as the primary north-south route through the Financial District, connecting bicycle facilities on Market Street to the south with facilities on Columbus Street to the north. Southbound Sansome Street is marked with pavement markings (sharrows) and is part

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<sup>46</sup> AECOM, *447 Battery Street Transportation Impact Study Final Report* (Case No. 2014-1036E), November 7, 2019. This document is available online at <https://citypln-m-extnl.sfgov.org/External/link.ashx?Action=Download&ObjectVersion=-1&vault={A4A7DACD-B0DC-4322-BD29-F6F07103C6E0}&objectGUID={2A39FBF6-DCCF-4D24-B735-0E200C90D4AB}&fileGUID={3D254775-5135-4B3E-A91E-C957CAE52731}>.

<sup>47</sup> The counts and observations obtained for the 447 Battery Street project are used to represent conditions prior to the start of the ongoing COVID-19 pandemic, which has temporarily altered transportation and circulation operations and patterns. While the 3 to 7 p.m. period is outlined in the 2019 Guidelines as the p.m. peak period, the transportation impact study prepared for the proposed project was limited to the availability of counts and observations representing pre-COVID conditions from the 447 Battery Street Transportation Impact Study Final Report (Case No. 2014-1036E).

<sup>48</sup> A bicycle route couplet is a pair of lines that work together. In this case, Sansome and Battery streets move cyclists northbound and southbound, respectively.

of the San Francisco Bicycle Network.<sup>49</sup> This bicycle route provides a route for cyclists on a roadway where only buses, taxis, and commercial vehicles are permitted between 7 a.m. and 8 p.m. every day.

**Pedestrian Facilities.** All streets in the project vicinity have complete sidewalks on both sides of the street, including the four street segments adjacent to the project site. The typical sidewalk width is approximately 10.5 feet along Battery, Sansome, and Washington streets, and 5.5 feet along Merchant Street. The effective widths of the sidewalks are reduced in some locations by several feet due to the presence of parking meters, signage, streetlights, utility poles, trash receptacles, street trees and planters, and other obstructions; however, there is a 4-foot-wide minimum pathway provided on Battery, Sansome, and Washington streets, as required by the Americans with Disabilities Act (ADA). The four study area intersections bounding the block containing the project site are signalized and feature marked crosswalks on all legs of the intersections. The intersections of Sansome and Merchant street and Battery and Merchant street have no crosswalks and no permitted mid-block crossing of the respective major streets.

**Transit.** The project site is at the northern edge of the Financial District and served by both local and regional transit services. Primary public transit access to the project site is provided by Muni bus service. Muni operates six bus routes (1-California, 10-Townsend, 12-Folsom-Pacific, 41-Union, 30X-Marina Express, and 82X-Levi Plaza Express) in the vicinity of the project site: three all-day routes and three peak-only routes. Additional service is provided by Golden Gate Transit buses during peak periods. Golden Gate Transit operates 16 peak period-only routes along Sansome and Battery streets, with service to Marin and Sonoma Counties. As a result of the COVID-19 pandemic, Muni, Golden Gate Transit, and other regional transit providers have temporarily suspended or reduced service.<sup>50</sup>

The East Bay, Peninsula, and South Bay are accessible via Muni connections, walking, or bicycling to stops on Market Street and to the south serving AC Transit (East Bay), WestCAT (East Bay), BART (East Bay and Peninsula), Caltrain (Peninsula and South Bay) and SamTrans (Peninsula).

In addition to the public transit services described above, privately-operated commuter shuttles managed by San Francisco Municipal Transportation Agency (SFMTA) under the Commuter Shuttle Program operate in the Financial District. While there are no designated commuter shuttle stops in the vicinity of the project site, commuter shuttles, both large motor coaches and smaller vans, were observed traveling on Battery Street and other nearby streets in 2017 as part of data collection for the adjacent 447 Battery Street project.<sup>51</sup>

**Emergency Access.** As described in Section A, *Project Description*, p. 1, Fire Station 13 is located within the project site, on the east side of Sansome Street between Washington and Merchant streets. The project site is located within the Central District of the San Francisco Police Department (police department), and the nearest police station is located on Vallejo Street, between Stockton and Powell streets, approximately 0.6 mile from the project site. All four local roadways providing access to the project site accommodate emergency vehicle access, and Sansome and Battery streets provide important north-south routes through the Financial District for emergency vehicles. While Merchant Street meets the minimum requirements specified by the fire department's Division of Planning and Research, larger vehicles may have difficulty accessing it and deploying necessary apparatus.

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<sup>49</sup> San Francisco Bicycle Network Map. Available <https://www.sfmta.com/maps/san-francisco-bike-network-map>, accessed March 2021.

<sup>50</sup> COVID-19 service suspensions and reductions were in effect as of April 2021.

<sup>51</sup> AECOM, *447 Battery Street Transportation Impact Study Final Report* (Case No. 2014-1036E), November 7, 2019. This document is available online at <https://citypln-m-extn1.sfgov.org/External/link.ashx?Action=Download&ObjectVersion=-1&vault={A4A7DACD-B0DC-4322-BD29-F6F07103C6E0}&objectGUID={2A39FBF6-DCCF-4D24-B735-0E200C90D4AB}&fileGUID={3D254775-5135-4B3E-A91E-C957CAE52731}>.

**Loading.** There are several on-street commercial loading (yellow) zones on the block faces surrounding the project site, but no on-street passenger loading (white) zones. Two commercial loading spaces are on Washington Street, one space on Sansome Street, seven spaces along the north side of Merchant Street, and four spaces along Battery Street. Additional on-street commercial loading is available on the west side of Sansome Street north and south of the project site, on the west side of Battery Street south of the project site, and on Washington Street to the west of Sansome Street. All of these spaces are metered and marked with yellow curb paint and with either yellow-topped meters (for standard commercial vehicles), or red-topped (for vehicles with six wheels or more). These spaces are restricted to commercial loading between 7 a.m. and 6 p.m. Mondays through Saturdays.

Field observations of loading conditions conducted as part of the adjacent 447 Battery Street project<sup>52</sup> in May 2017 found that overall utilization of commercial loading spaces adjacent to the project site was 50 percent, of which 6 percent was by commercial loading activities. The majority of the utilization was by transportation network company (TNC) pick-up and drop-off and general parking.

## VEHICLE MILES TRAVELED IN SAN FRANCISCO AND BAY AREA

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

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

The San Francisco County Transportation Authority (the 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. The SF-CHAMP model is a regional travel demand forecasting model that assigns all predicted trips within, across, or to or from San Francisco onto the roadway network and the public transit system. Travel behavior in SF-CHAMP is calibrated based on observed behavior from the California Household Travel Survey, 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 model estimates daily VMT for residential, office, and retail land use types. For residential and office uses, the transportation authority uses a tour-based analysis, which examines the entire chain of trips over the course of a day, not simply trips to and from a site. For retail uses, the transportation authority uses a

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<sup>52</sup> AECOM, *447 Battery Street Transportation Impact Study Final Report* (Case No. 2014-1036E), November 7, 2019. This document is available online at <https://citypln-m-extnl.sfgov.org/External/link.ashx?Action=Download&ObjectVersion=-1&vault={A4A7DACD-B0DC-4322-BD29-F6F07103C6E0}&objectGUID={2A39FBF6-DCCF-4D24-B735-0E200C90D4AB}&fileGUID={3D254775-5135-4B3E-A91E-C957CAE52731}>.

trip-based analysis, which counts VMT from individual trips to and from the project site (as opposed to an entire chain of trips). A trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and the summarizing of tour VMT to each location would overestimate VMT.<sup>53,54,55</sup>

For residential development, the existing regional average daily VMT per capita is 17.2. For office development, the existing regional average VMT per employee is 19.1. For retail development, the existing regional average daily VMT per capita is 14.8.<sup>56</sup>

## VEHICLE MILES TRAVELED ANALYSIS METHODOLOGY

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.

Pursuant to the 2019 San Francisco Transportation Impact Analysis Guidelines (SF Guidelines),<sup>57</sup> for residential projects, a project would generate substantial additional VMT if it exceeds the regional household VMT per capita minus 15 percent. For office projects, a project would generate substantial additional VMT if it exceeds the regional VMT per employee minus 15 percent. As documented in the December 2018 California Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (technical advisory),<sup>58,59</sup> a 15 percent threshold below existing development is “both generally achievable and is supported by evidence that connects this level of reduction to the State’s emissions goals.” For retail projects, the planning department uses a VMT efficiency metric approach: 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 technical advisory. For mixed-use projects, each proposed land use is evaluated independently.

OPR’s technical advisory provides screening criteria to identify types, characteristics, or locations of land use projects that would not exceed these VMT thresholds of significance. OPR recommends that if a project or land use proposed as part of the project meets any of the below screening criteria, then VMT impacts are presumed

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<sup>53</sup> San Francisco Planning Department, Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A, March 3, 2016.

<sup>54</sup> To state it another way, a tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, for example, a coffee shop on the way to work and a restaurant on the way back home, then both retail locations would be allotted the total tour VMT. A trip-based approach allows us to apportion all retail-related VMT to retail sites without double-counting.

<sup>55</sup> Retail travel is not explicitly captured in San Francisco chained activity modeling process; rather, there is a generic "Other" purpose which includes retail shopping, medical appointments, visiting friends or family, and all other non-work, non-school tours. The retail efficiency metric captures all of the "Other" purpose travel generated by Bay Area households. The denominator of employment (including retail; cultural, institutional, and educational; and medical employment; school enrollment, and number of households) represents the size, or attraction, of the zone for this type of "Other" purpose travel.

<sup>56</sup> San Francisco Planning Department, *San Francisco Transportation Information Map*, Available: <https://sfplanninggis.org/TIM/>, Accessed: February 2020. Note: Regional values on the website are given as VMT minus 15 percent, the values stated here are the total regional values

<sup>57</sup> On February 14, 2019, the planning department published a comprehensive update to the 2002 Transportation Impact Analysis Guidelines for Environmental Review. This document was updated in October 2019 and is available online at <https://sfplanning.org/project/transportation-impact-analysis-guidelines-environmental-review-update#impact-analysis-guidelines>.

<sup>58</sup> OPR, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018, available online at: [https://www.opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](https://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf), Accessed April 2021.

<sup>59</sup> OPR’s technical advisory states 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.

to be less than significant for that land use and a detailed VMT analysis is not required. These screening criteria and how they are applied in San Francisco are described below:

- *Map-Based Screening for Residential and Retail Projects.* OPR recommends mapping areas that exhibit where VMT is less than the applicable threshold for that land use. Accordingly, the transportation authority has developed maps depicting existing VMT levels in San Francisco for residential 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 as projects that are a mix of these uses, proposed within 0.5 mile of an existing major transit stop (as defined by CEQA Guidelines section 21064.3) or an existing stop along a high quality transit corridor (as defined by CEQA Guidelines 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.

OPR’s technical advisory does 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.<sup>60</sup> 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 technical advisory.

## AVERAGE DAILY VEHICLE MILES TRAVELED SUMMARY

**Table 4** presents the existing average daily VMT per capita for residents for the nine-county San Francisco Bay Area and for TAZ 804, the zone in which the project site is located. The existing average daily VMT per capita for residential uses in TAZ 804 (2.5 miles) is approximately 85 percent lower than the regional Bay Area average (17.2 miles). The existing average daily VMT per employee for office uses in TAZ 804 (7.9 miles) is approximately 59 percent lower than the regional Bay Area average (19.1 miles). The existing average daily VMT per employee for retail uses in TAZ 804 (8.7 miles) is approximately 41 percent lower than the regional Bay Area average (14.8 miles).

**Table 4** Average Daily Vehicle Miles Traveled in TAZ 804 (Existing)

Land Use	Bay Area Regional Average	Bay Area Regional Average Minus 15% (Significance Threshold)	TAZ 804
Residential	17.2	14.6	2.5
Office	19.1	16.2	7.9
Retail	14.8	12.6	8.7

SOURCE: San Francisco Planning Department, *San Francisco Transportation Information Map*, 2019.

<sup>60</sup> OPR recommends that lead agencies may generally assume that a project would not have significant VMT impacts if the project would generate fewer trips than the level for studying consistency with the applicable congestion management program or, where the applicable congestion management program does not provide such a level, fewer than 100 vehicle-trips per day. The SFCTA’s *Congestion Management Program* (December 2015) does not include a trip threshold for studying consistency. Therefore, the Planning Department uses a screening criterion of fewer than 100 vehicle-trips per day for projects that are generally assumed to generate an increase in VMT that is not substantial.



## PROJECT TRAVEL DEMAND

The proposed project or residential variant would meet the criteria for map-based screening of residential, office, and retail projects; and proximity to transit stations. Retail is presented as a proxy for the proposed project’s gym and restaurant land uses as they would provide an amenity to residents, employees, and visitors in downtown San Francisco in a similar manner to retail services. Due to the density of complementary land uses and high transit accessibility to the project site, they would generate substantially less VMT compared to the rest of the region. For similar reasons, the visitors and employees of the hotel would reflect the travel characteristics of retail and office space, with substantially lower VMT than the significance threshold. Therefore, potential transportation impacts are determined under the VMT analysis. In addition, no improvements are proposed that require an induced automobile travel analysis. Localized daily and p.m. peak period trip generation for the proposed project and the residential variant were calculated using a trip-based analysis and information included in the SF Guidelines.<sup>61</sup> These trips are summarized in **Table 5**. Trip generation refers to the number of estimated trips people would take to and from the project site (person trips). These trips are broken down by mode, or the estimated way or method people travel (e.g., walking, bicycling, transit). Auto trips are further broken down into vehicle trips, which account for average vehicle occupancy in the census tract in which the project site is located.

**Table 5 Proposed Project and Residential Variant Travel Demand**

Mode	Proposed Project				Residential Variant			
	Person Trips		Vehicle Trips		Person Trips		Vehicle Trips	
	Daily	PM Peak Period	Daily	PM Peak Period	Daily	PM Peak Period	Daily	PM Peak Period
Auto	856	87	564	55	392	35	259	23
TNC/Taxi	571	50	352	31	94	8	63	5
Transit	1,302	148			438	39		
Walk	3,435	358			595	53		
Bike <sup>a</sup>	226	22			47	4		
<b>Total</b>	<b>6,390</b>	<b>665</b>	<b>916</b>	<b>86</b>	<b>1,566</b>	<b>139</b>	<b>322</b>	<b>28</b>

SOURCES: SF Guidelines, 2019, SF Planning Department; Fehr & Peers, 2021

<sup>a</sup> Daily and p.m. peak hour trip generation rates are based on 2019 SF Guidelines for residential, office, and retail/restaurant, and on 2002 SF Guidelines for the fitness center.

As shown in Table 5, the proposed project would generate 6,390 person trips on a daily basis and 665 person trips during the weekday p.m. peak hour. Of those trips, approximately 916 daily and 86 p.m. peak hour trips would be vehicle trips (i.e., auto, TNC/taxi). The residential variant would generate 1,566 person trips on a daily basis and 139 person trips during the weekday p.m. peak hour. Of those trips, approximately 322 daily and 28 p.m. peak hour trips would be vehicle trips (i.e., auto, TNC/taxi).

<sup>61</sup> San Francisco Planning Department, Travel Demand Tool, <https://sftraveldemand.sfcta.org/>, accessed September 28, 2020.

## **TRANSPORTATION IMPACTS**

San Francisco Administrative Code chapter 31 directs the department to identify environmental effects of a project using as its base the environmental checklist form set forth in CEQA Guidelines Appendix G. As it relates to transportation and circulation, Appendix G asks whether the project would:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; and
- Result in inadequate emergency access.

The department uses significance criteria to facilitate the transportation analysis and address the Appendix G checklist. The department separates the significance criteria into construction and operation.

### **CONSTRUCTION**

Construction of the proposed project or residential variant would have a significant effect on the environment if it would require a substantially extended duration or intense activity; and the effects would create potentially hazardous conditions for people walking, bicycling, or driving, or public transit operations; or interfere with accessibility for people walking or bicycling or substantially delay public transit.

### **OPERATION**

The operational impact analysis addresses the following five significance criteria. A project would have a significant effect if it would:

- Create potentially hazardous conditions for people walking, bicycling, or driving or public transit operations;
- Interfere with accessibility of people walking or bicycling to and from the project site, and adjoining areas, or result in inadequate emergency access;
- Substantially delay public transit;
- Cause substantial additional VMT or substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow travel lanes) or by adding new roadways to the network; or
- Result in a loading deficit and the secondary effects would create potentially hazardous conditions for people walking, bicycling, or driving or substantially delay public transit.

## PROJECT-LEVEL TRANSPORTATION IMPACTS

**Impact TR-1: Construction of the proposed project or residential variant would not require a substantially extended duration or an intense activity, the effects of which would create potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations; would not interfere with emergency access or accessibility for people walking or bicycling; and would not substantially delay public transit. (*Less than Significant*)**

Construction of the proposed project or residential variant would take place over a period of approximately 29 months and would include site demolition, preparation, grading and excavation, pile installation, foundation construction, building construction, architectural coating, the installation of utilities, paving, interior finishing and exterior streetscape, hardscaping, and landscaping.

The San Francisco Regulations for Working in San Francisco Streets (the Blue Book)<sup>62,63</sup> contain regulations that are prepared and regularly updated by SFMTA under the authority derived from the San Francisco Transportation Code. The Blue Book serves as a guide for all city agencies (public works, SFMTA, public utilities commission, the port, etc.), utility crews, private contractors, and others who work in San Francisco's public rights-of-way. It establishes rules and guidance so that work can be done safely and with the least possible interference with people walking, bicycling, taking transit, or driving and/or transit operations. It also contains relevant general information, contact information, and procedures related to working in the public right-of-way when it is controlled by agencies other than SFMTA.

Prior to construction of the proposed project or residential variant the project sponsor and/or construction contractor(s) would be required to meet with public works and SFMTA staff to develop and review construction plans in preparation for obtaining relevant construction permits. This may include reviewing truck routing plans for the disposal of excavated materials, material delivery and storage, as well as staging for construction vehicles. If SFMTA determines that a construction project impacts transit routing or alters the flow of vehicle, bicycle, or pedestrian traffic, a logistic plan would be required so that SFMTA permit staff can confirm what permits from SFMTA or public works are required for the project.

Should the proposed project or residential variant's construction activities not comply with regulations in the Blue Book or the traffic routing specifications in the city contract or when two or more contractors work at a time on any one block,<sup>64</sup> the contractor would be required to apply for a special traffic permit from SFMTA prior to the commencement of on-site work. Some examples of circumstances when special traffic permits are required include, but are not limited to, closing a street or an alley, closing a sidewalk, closing or detouring a bicycle route, moving a bus zone outside the limits of the project, inability to provide the required number of lanes, and/or construction work occurring within one block of an existing construction site. As part of its review for special traffic permits, SFMTA, in coordination with public works, may include necessary measures in the special traffic permit to ensure the safety and accessibility of people walking, bicycling, driving, and public transit operations at or near the project site.

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<sup>62</sup> San Francisco Municipal Transportation Agency, Regulations for Working in San Francisco Streets, 8th Edition, January 2012, [https://www.sfmta.com/sites/default/files/reports-and-documents/2020/06/blue\\_book\\_8th\\_edition\\_6-23-20.pdf](https://www.sfmta.com/sites/default/files/reports-and-documents/2020/06/blue_book_8th_edition_6-23-20.pdf), accessed February 2021.

<sup>63</sup> The authority for the Blue Book comes from the San Francisco Transportation Code, [https://codelibrary.amlegal.com/codes/san\\_francisco/latest/sf\\_transportation/0-0-0-2](https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_transportation/0-0-0-2), accessed February 2021.

<sup>64</sup> San Francisco Municipal Transportation Agency, Regulations for Working in San Francisco Streets, 8th Edition, January 2012, [https://www.sfmta.com/sites/default/files/reports-and-documents/2020/06/blue\\_book\\_8th\\_edition\\_6-23-20.pdf](https://www.sfmta.com/sites/default/files/reports-and-documents/2020/06/blue_book_8th_edition_6-23-20.pdf), accessed February 2021.

If a special traffic permit is required, the project contractor may not commence construction activities until the permit is issued. A special traffic permit is issued for no more than 30 calendar days, after which the contractor is required to renew to perform further construction activities.<sup>65</sup> SFMTA may refuse to issue, extend, or revoke a special traffic permit depending on transportation network conditions at or near the project site. Penalties may be assessed for violating the terms of a special traffic permit and/or the regulations described in the Blue Book or failing to obtain a special traffic permit when one is required. Additional penalty or six months in jail or both may be applied for the fourth and subsequent violations in a 12-month period.<sup>66</sup>

In addition to the regulations presented in the manual, all traffic control, warning and guidance devices must conform to the California Manual on Uniform Traffic Control Devices.<sup>67</sup>

The construction contractor would also be required to adhere to the San Francisco Public Works Code<sup>68</sup> and obtain all necessary permits for construction in the public-right-of-way. Specifically, the public works code section 724 requires that a property owner obtain a street space occupancy permit from public works for occupying any part of the fronting street or sidewalk for any purpose, including building construction operations. Section 724 also establishes requirements for the temporary occupation of the public right-of-way including, but not limited to, clearances for traffic-signal equipment, notice to all impacted fronting property owners, pedestrian clearances, construction worker parking plans in certain use districts, debris management, and clearances for San Francisco Fire Department equipment. Further, section 724 also requires that lights, barriers, barricades, signs, cones, and other devices be provided to ensure pedestrian and traffic safety.

The public works code section 2.4.20 addresses permits to excavate. For a permit for major work<sup>69</sup> or excavation that will affect the public right-of-way that is 30 consecutive calendar days or longer contractors are required to submit for public works review a contractor parking plan, including a proposal to reduce parking demand in the project site vicinity.

San Francisco Public Works Order No. 167,840,<sup>70</sup> identifies requirements related to the placement of various types of barricades at construction sites, such as A-frames, barrier caution tapes, fencing, and barricades around crosswalks. These requirements are intended to protect pedestrians near construction sites consistent with all local, state, and federal codes, including the Americans with Disabilities Act and California Building Code Title 24.

In addition to the regulations in the Blue Book and the public works code, the contractor would be responsible for complying with all city, state, and federal codes rules and regulations. These regulations include any requirements for work on public rights-of-way under the jurisdiction of the California Department of Transportation, the port, or the San Francisco Recreation and Park Department.

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<sup>65</sup> Ibid.

<sup>66</sup> Ibid.

<sup>67</sup> California Manual on Uniform Traffic Control Devices (MUTCD) Rev 5, 2014, <https://dot.ca.gov/-/media/dot-media/programs/safety-programs/documents/ca-mutcd/rev-5/camutcd2014-rev5-a11y.pdf>, assessed February 2021.

<sup>68</sup> San Francisco Public Works Code, [https://codelibrary.amlegal.com/codes/san\\_francisco/latest/sf\\_publicworks/0-0-0-2](https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_publicworks/0-0-0-2), accessed February 2021.

<sup>69</sup> The public works code section 2.4.4 defines “major work” as any reasonably foreseeable excavation that will affect the public right-of-way for more than 15 consecutive calendar days.

<sup>70</sup> San Francisco Public Works. 2008. Guidelines for the Placement of Barricades at Construction Sites (Order No.167,840), [http://sfpublicworks.org/sites/default/files/Guidelines\\_for\\_Placement\\_of\\_Barricades\\_0.pdf](http://sfpublicworks.org/sites/default/files/Guidelines_for_Placement_of_Barricades_0.pdf), accessed June 24, 2020.

All equipment staging is expected to occur on-site; however, due to the limited area available on site, intermittent sidewalk and/or lane closures along project frontages may be required for public safety and to permit equipment access. Given that specific details about sidewalk and lane closures are not available at this time, under a worst-case scenario (i.e., a most impactful scenario), sidewalks adjacent to the project site could be closed on Sansome, Washington, and Merchant streets simultaneously. The sidewalk closure on Washington Street would require removal of the parking lane on the south side of Washington Street to create a temporary sidewalk. The closure of the northern sidewalk on Merchant Street would require that people walk on the sidewalk on the south side of the alleyway. The closure of the eastern sidewalk on Sansome Street would require the temporary removal of the existing commercial loading spaces and closure of the northbound peak period (3 to 7 p.m.) tow-away lane.

Over the course of project construction, the entirety of Washington Street would be closed for a two-day period over a weekend for tower crane erection and then again for tower crane dismantling. The easternmost northbound lane of Sansome Street and the southernmost westbound lane of Washington Street would be closed for a one-day period during the mat foundation placement. During project construction, closures of those same travel lanes on Sansome and Washington streets could be necessary for two single-day periods for utility work. Nighttime closure of Merchant Street could be necessary on two separate days for utility work.

Additionally, during construction fire truck operations would be relocated from Fire Station 13 to nearby stations (i.e., Stations 2, 28, 35, or 41) and would continue to serve the Financial District. The relocation would not cause a substantial disruption to emergency response coverage as those stations would be able to accommodate Station 13 operations and services at maintained at existing levels.<sup>71</sup> Furthermore, the relocation of Station 13 operations would not require construction of any new facilities. The temporary relocation of fire vehicles and personnel to nearby stations is a part of routine operations for the fire department and would not represent a change to operations for the Station 13 service area.

The proposed project or residential variant would generate up to 60 trucks per day during excavation activities and approximately 20 trucks per day during the remaining phases of construction. Trucks would use Third and Kearny streets to reach Clay Street then Sansome Street to reach the project site. Trucks would access the site from Sansome or Washington streets, depending on where the construction is occurring. The proposed truck routes would be reviewed and approved by SFMTA to minimize conflicts and potentially hazardous conditions with other roadway users. The slower movement and larger turning radii of construction truck traffic may result in a temporary lessening of roadway capacities in the study area. Transit service may occasionally be temporarily delayed due to truck traffic in and out of the project site from Sansome Street; however, this level of truck traffic would not substantively delay public transit or result in hazardous conditions for people taking transit since trucks would be infrequent (average of five to six per hour) and would use streets designed to provide access to the existing fire station. Construction vehicles used for the proposed project or residential variant would not be substantially larger than the fire department vehicles. Thus, these streets are wide enough for construction vehicles to maneuver into and out of the project site.

The approximate average number of construction workers onsite by shift would be 120, with a maximum of 270 workers between December 2022 and April 2024 during the building construction and architectural

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<sup>71</sup> DeWitt, Dawn, Assistant Deputy Chief, Support Services, San Francisco Fire Department, e-mail correspondence with Matt Goyne, PE, Senior Associate, Fehr & Peers, January 26, 2021.

coating phases. As required by public works code section 2.4.20, the project sponsor would be required to prepare a contractor parking plan that addresses changes in parking supply. However, because if parking shortfalls occur, they would be temporary in nature, variable depending on the construction activity, would occur prior to peak hours, and would be minimized by the contractor parking plan, the parking shortfalls would not substantially affect conditions for people walking, bicycling, or public transit. The addition of worker-related transit trips is similarly temporary, variable, and off-peak, and would not substantially affect transportation conditions.

Construction activities would comply with all applicable city codes and regulations, ensuring that such activities would not result in potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations; would not interfere with emergency access or accessibility for people walking or bicycling; and would not substantially delay public transit. Therefore, construction-related impacts of the proposed project or residential variant would be **less than significant**, and no mitigation measures would be required.

**Impact TR-2: The proposed project or residential variant would not create potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations. (Less than Significant)**

The proposed project and residential variant would include design features that are consistent with the urban form of the surrounding blocks of the Financial District, which includes a mix of commercial, hotel, and residential uses with pedestrian-oriented frontages on major streets and parking garage entrances on minor streets or alleyways. As shown in Table 5, p. 73, the proposed project and residential variant would generate 86 and 28 p.m. peak hour vehicle trips, respectively. The only study area roadway designated as a part of the Vision Zero<sup>72</sup> network is Washington Street, from mid-block between Sansome and Battery streets extending to the west. This segment of Washington Street is not located adjacent to any substantial concentrations of vulnerable populations (e.g., children, seniors, people with disabilities). The proposed project and residential variant would add 25 and five vehicles to Washington Street during the p.m. peak hour, respectively. The proposed project or residential variant would also generate 22 and 4 people bicycling, respectively, during the p.m. peak period onto the surrounding roadway network. This level of automobile traffic (5 to 10 percent changes) and people bicycling would not represent a substantial increase in traffic nor result in potentially hazardous conditions along Washington Street or other surrounding streets. Further, the fire department's emergency vehicle access on Washington Street would include audible warnings to alert people walking and bicycling and would not substantially change the existing fire station activities and, therefore, would not result in potentially hazardous conditions along Washington Street or other surrounding streets.

In addition, the proposed project or residential variant would not alter the existing street grid, reconfigure the intersections near the project site, or introduce other physical features that would create potentially hazardous conditions for people driving, walking, or bicycling, or for public transit operations. Fire trucks exiting the project site onto Washington Street would use emergency sirens and lights to warn people walking and bicycling of vehicle activity. Moreover, the proposed project or residential variant would provide streetscape and sidewalk improvements along the block's street frontages in accordance with the San

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<sup>72</sup> In 2014, the San Francisco Board of Supervisors adopted a resolution to implement an action plan that would reduce traffic fatalities to zero by 2024 through engineering, education, and enforcement (resolution 91-14). The numerous San Francisco agencies responsible for the action plan adopted similar resolutions. In 2017, the Board of Supervisors amended the Transportation and Urban Design elements of the San Francisco General Plan to implement Vision Zero (ordinance 175-17).

Francisco Better Streets Plan; streetscape improvements would include installation of a raised cross walk and roadway ramp at the intersection of Sansome and Merchant streets, and a bulb-out at the corner of Sansome and Washington streets. In addition, the proposed project or residential variant would convert a portion of Merchant Street into a shared street/living alley that would extend from Sansome Street to the eastern edge of the project site. Although Merchant Street would remain open to vehicles and would be used by the project for passenger loading during the p.m. peak period (3 p.m. to 7 p.m.), the proposed design would include a 14-foot-wide pedestrian-only zone along the northern edge of Merchant Street that would provide adequate separation from people walking and automobiles.

POPOS programming on Merchant Street would not introduce potentially hazardous conditions for people driving, walking, or bicycling, or for public transit operations due to the low roadway volumes during the mid-day period (when proposed changes to Merchant Street would occur). The shared street/living alley design of Merchant Street (which is part of both the proposed project and residential variant) would slow vehicles entering and exiting the project's parking garage accessible from Merchant Street. In addition, the proposed project or residential variant proposes to implement a driveway and loading operation plan. The proposed project's driveway and loading operation plan would complement the POPOS and would ensure that neither the driveway nor the POPOS would introduce potentially hazardous conditions for people walking, bicycling, or driving on Merchant Street. The residential variant's driveway and operation plan would complement the shared street/living alley streetscape improvements and would ensure that neither the driveway nor shared street improvements would introduce potentially hazardous conditions for people walking, bicycling, or driving on Merchant Street.

Based on the discussion above, the proposed project or residential variant would not exacerbate existing conditions or create a new potentially hazardous condition for people walking, bicycling, or driving, or public transit operations; impacts would be **less than significant**, and no mitigation measures would be required.

**Impact TR-3: The proposed project or residential variant would not interfere with accessibility for people walking or bicycling to and from the project site and adjoining areas or result in inadequate emergency access. (Less than Significant)**

As shown in Table 5, p. 73, the proposed project would generate a total of 564 private auto vehicle trips and 352 TNC/taxi vehicle trips, and would add 1,302 transit trips, 3,435 walk trips, and 226 person trips by bicycle on a daily basis. During the p.m. peak hour, the proposed project would generate an estimated 55 private auto vehicle trips, 31 TNC/taxi vehicle trips, 148 transit trips, 358 walking trips, and 22 person trips by bicycle. The residential variant would generate fewer daily trips than the proposed project, with a total of 259 private auto vehicle trips and 63 TNC/taxi vehicle trips daily, and 438 transit trips, 595 walk trips, and 47 person trips by bicycle. The residential variant would also generate fewer p.m. peak hour trips than the proposed project, with a total of 23 private auto vehicle trips and 5 TNC/taxi vehicle trips daily, and 39 transit trips, 53 walk trips, and 4 person trips by bicycle.

**Pedestrian Facilities.** As noted above in the *Transportation Setting* section, the pedestrian facilities on the roadways adjacent to the project site include adequate ADA facilities, and the proposed project or residential variant would increase the effective width of sidewalks for people walking along Sansome and Washington streets to a minimum 7.5-foot-wide pathway by relocating the existing obstructions. The proposed project or residential variant would increase the width of the portion of the Sansome Street sidewalk along the project frontage from 10.5 to 12 feet, and would not change the existing 10-foot-wide sidewalk along the project frontage on the south side Washington Street. While the proposed sidewalk width on Washington Street

along the project frontage does not meet Better Streets Plan standards, which requires a minimum 12 feet and recommended 15 feet width on typical commercial streets, the sidewalk width is sufficiently wide for to accommodate the existing levels of pedestrian activity (500 people walking at the corner of Sansome and Washington streets). The project would add approximately 500 additional people walking (including transit riders) to the surrounding sidewalks during the p.m. peak period, or up to 665 people walking when accounting for passenger loading activity and people who may be walking from nearby parking garages; the residential variant would add fewer people walking to the surrounding sidewalks: approximately 100 people walking (including transit riders) during the p.m. peak period, or up to 139 people walking (including passenger loading activity and people who may be walking from nearby parking garages). Most of these people would use Sansome Street or Merchant Street to access the primary entrances to the proposed building. As noted above, the proposed project or residential variant would increase the width of the Sansome Street sidewalk along the project frontage to 12 feet and provide a shared street on Merchant Street to accommodate the increased activity associated with people accessing the proposed building. Fewer people walking would use Washington Street; activity would be limited to the sidewalk on the south side of the street, which would serve people walking to and from destinations to the east of the project site. In general, the increased level of pedestrian activity on Sansome or Washington streets that would result from the proposed project or residential variant would be less than pedestrian activity levels at places such as the southwest corner of Sansome and Clay streets (1,400 people walking) and would be similar to nearby locations on Washington, Battery, and Clay streets, which have sidewalks similar in width to Sansome Street and currently have adequate capacity for people walking. Therefore, even with an increased level of pedestrian activity, the proposed project or residential variant would not interfere with accessibility on surrounding streets.

The proposed project's POPOS programming on Merchant Street, including discouraging access for through vehicles, would not interfere with accessibility as it would expand space for people walking while allowing vehicles to access the proposed project's parking garage at all times. The project sponsor would be required to include design features in the proposed project that ensure that POPOS operations would not interfere with accessibility as a part of the POPOS condition of approval, subject to SFMTA and planning department approval, which would help to maintain accessibility for people walking or bicycling. While the residential variant would not necessarily include the same design or POPOS features required for planning code section 138, the residential variant would still construct shared-street improvements on Merchant Street that would help maintain accessibility for people walking or bicycling. In addition, the proposed project or residential variant would implement a driveway and loading operation plan, which would complement the shared street/living alley design of Merchant Street and would help maintain accessibility for people walking.

**Bicycle Facilities.** As noted above in the *Transportation Setting* section, Class III (shared lanes) bicycle facilities in the study area are currently provided on Sansome and Washington streets, adjacent to the project site, and on Clay and Battery streets. Additionally, southbound Sansome Street is marked with pavement markings (sharrows). Implementation of the proposed project or residential variant would not eliminate or reconfigure any of these existing bicycle facilities. As previously discussed, the proposed project and residential variant would generate 22 and 4 p.m. peak hour bicycle trips, respectively. This relatively low number of bicycle trips would not substantially conflict with or result in unsafe conditions to nearby bicycle paths or facilities.

**Emergency Access.** The proposed project or residential variant would not include features that would inhibit emergency vehicle access to the project site, and pedestrian features such as corner bulb outs, the Merchant Street shared street/living alley, and street trees would be designed to accommodate emergency



vehicle access. The proposed project or residential variant would include features to support the replacement fire station access from Washington Street, including the emergency vehicle preemption system installed at the traffic signals on Washington Street at the Sansome Street and Battery Street intersections, a fire only lane, red curbs, and 'KEEP CLEAR' markings on Washington Street. California Vehicle Code section 21806 requires that all non-emergency vehicles yield right-of-way to emergency vehicles, so general traffic congestion in the vicinity of the project site would not result in substantial delay to emergency vehicle response. Therefore, emergency vehicles would continue to be able to access the project site and the proposed project or residential variant would not interfere with accessibility for emergency services.

Based on the discussion above, accessibility impacts would be **less than significant**, and no mitigation measures would be required.

**Impact TR-4: The proposed project or residential variant would not substantially delay public transit. (Less than Significant)**

The proposed project or residential variant would not directly change facilities for public transit routes surrounding the project site, including Muni and Golden Gate Transit routes, nor would they add driveways to streets with transit. As shown in Table 5, p. 73, the proposed project and residential variant would generate 86 and 28 p.m. peak hour vehicle trips, respectively. This number of p.m. peak hour vehicle trips is below the planning department's transit delay screening criterion of 300 p.m. peak hour vehicle trips, which is the amount of traffic that could potentially substantially delay public transit vehicles operating on routes adjacent to a project site. Fire trucks would exit the project site under emergency conditions and any transit delay would be temporary. Therefore, impacts to public transit delay would be **less than significant** and no mitigation measures would be required.

**Impact TR-5: The proposed project or residential variant would not cause substantial additional vehicle miles traveled or substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow travel lanes) or adding new roadways to the network. (Less than Significant)**

As shown in Table 4, p. 72, the existing average daily VMT for TAZ 804 is 2.5 miles per capita for residential uses, 7.9 miles per employee for office uses, and 8.7 miles per employee for retail uses, which are all below the existing regional VMT per capita/per employee minus 15 percent. As noted previously under *Project Travel Demand*, retail is presented as a proxy for the proposed project's gym and restaurant land uses, and the visitors and employees of the hotel would reflect the travel characteristics of retail and office space. The project site is located in an area of San Francisco where the existing VMT is more than 15 percent below the regional VMT thresholds; therefore, the proposed project or the residential variant would not generate a substantial increase in VMT.

The proposed project or residential variant is not a transportation project, but would include transportation features such as driveways for parking garages and loading docks, changes to color curbs, and pedestrian safety features (e.g., widened sidewalks, curb bulb outs, raised crosswalks). With respect to induced automobile travel, these transportation features fit within the planning department's general types of projects (discussed above in Approach to Analysis) that can be assumed not to generate a substantial amount of VMT.

Based on the discussion above, impacts related to VMT would be **less than significant** and no mitigation measures would be required.

**Impact TR-6: The proposed project or residential variant would not result in a loading deficit, the secondary effects of which would create potentially hazardous conditions for people walking, bicycling, or driving or substantially delay public transit. (Less than Significant)**

## PROPOSED PROJECT

**Freight Loading.** As presented in Table 1, the proposed project would provide one off-street freight loading space accessible from Washington Street and two service vehicle spaces in the basement-level garage accessible from Merchant Street. The total freight loading demand generated by the proposed land uses would be an estimated 31 average daily freight loading occurrences and two peak hour freight loading occurrences. Therefore, the off-street freight loading space supply alone would not be sufficient to accommodate the peak hour (11 a.m. to 2 p.m.) freight loading demand. However, the majority of daily service vehicle activity associated with proposed project's hotel and retail uses consist of smaller vehicle types such as light trucks and panel vans that could be accommodated within the proposed off-street freight and service vehicle loading spaces.<sup>73</sup> Service vehicles would be able to access the service vehicle spaces in the parking garage at all times, including when through traffic is limited on Merchant Street during POPOS programming hours, including the freight loading demand peak hour period.

The off-street freight loading space would be located on the Washington Street frontage approximately 100 feet east of the Sansome Street curb face. The freight loading dock is proposed to be 30 feet long, which would adequately accommodate freight trucks without blocking the sidewalk on Washington Street. Freight trucks would pull past the loading dock on Washington Street and reverse into the loading dock; these truck movements could be accommodated within Washington Street and would not interfere with fire department vehicles exiting the fire station on Washington Street. Furthermore, a gate arm or other traffic control feature at this loading dock would restrict commercial vehicle egress from the loading dock during a fire department departure event. There is no transit service on Washington Street east of Sansome Street that could be delayed by a freight loading turning movement. Approximately once or twice a day, a vehicle longer than 30 feet is expected to serve the project site and would need to load at convenient loading zones (e.g., within 250 linear feet of the project site) on adjacent streets, such as at the yellow loading zones on the west side of Sansome Street, south of Merchant Street. In addition, the proposed project or residential variant would implement a driveway loading and operations plan, which would create protocols for these large vehicle deliveries to ensure that these infrequent activities do not introduce potentially hazardous conditions for other roadway users.

The proposed project would remove up to seven of the existing 14 freight loading spaces on the block surrounding the project site, including one space on Sansome Street, up to four spaces on Merchant Street adjacent to the project site, and two freight loading spaces on Washington Street. Only 6 percent of the existing freight loading spaces on the block surrounded by Washington, Battery, Merchant, and Sansome streets were observed<sup>74</sup> to be used by freight vehicles on average, representing less than one freight vehicle serving the existing land uses on the project site at any given time between the hours of 7 a.m. and 6 p.m.

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<sup>73</sup> Figure 60, page 111 of the San Francisco Travel Demand Update: Data Collection and Analysis (Fehr & Peers, 2018). This document is also Appendix F of the February 2019 SF Guidelines.

<sup>74</sup> Field observations were conducted as part of the adjacent 447 Battery Street project during December 2017 (all day) over three weekdays and one Saturday between 7 a.m. and 6 p.m. Fehr & Peers, *530 Sansome Street Transportation Study*, April 2, 2021.

The remaining use of these spaces was for non-permitted uses, such as parking (40 percent average utilization) and for passenger loading (four percent average utilization) for adjacent commercial land uses. Therefore, the removal of the existing freight loading spaces as part of the 530 Sansome Street project would not substantially affect the ability for freight vehicles to serve adjacent properties.

For the above reasons, the project would not create potentially hazardous conditions people walking, bicycling, or driving, or substantially delay public transit. Therefore, the proposed project would result in a *less than significant* freight loading impact.

**Passenger Loading.** The proposed project would have an approximately 100-foot-long passenger loading zone (approximately five spaces) on Sansome Street and an approximately 40-foot-long p.m. peak traffic period (3 p.m. to 7 p.m.) passenger loading zone (approximately two spaces) on Merchant Street.<sup>75</sup> The proposed Sansome Street passenger loading zone is located in an existing peak hour tow-away lane, and therefore would be unavailable during the p.m. peak period. During this time, the Merchant Street passenger loading zone would be available for passenger loading activity. The proposed project would generate demand for 57 p.m. peak-hour passenger loading occurrences and two passenger loading spaces per minute during the peak 15-minute periods.<sup>76</sup> The peak period for passenger loading demand occurs from 5 p.m. to 8 p.m. per the 2019 SF Guidelines and therefore this demand could occur while the loading zone on Merchant Street is available from 5 p.m. to 7 p.m. or while the loading zone on Sansome Street is available from 7 p.m. to 8 p.m. Thus, both passenger loading zones would be required to accommodate the proposed project's estimated peak-hour passenger loading demand.

Both loading zones would be served by curbside valet stations where valet drivers would shuttle cars to and from the loading zones and the off-street parking facility accessible from Merchant Street. The valet service would increase the efficiency of the passenger loading zone, ensure demand does not exceed supply through the active management by an attendant, and would not create a potentially hazardous condition for other roadway users.

Informal parking and loading activities associated with the fire department that currently occur on Merchant Street would shift to the south side of Washington Street within the red curb zone shown on Figure 2. This activity is a part of regular fire department operations, and the proposed fire access lane on Washington Street would be wide enough to accommodate this activity without disrupting emergency access to the replacement fire station.

Therefore, the proposed project would accommodate peak hour passenger loading demand within convenient on-street loading zones and would not result in a passenger loading demand that would create potentially hazardous conditions for people walking, bicycling, or driving or substantially delay public transit. The proposed project would result in a ***less-than-significant*** impact on passenger loading conditions.

## RESIDENTIAL VARIANT

**Freight Loading.** Similar to the proposed project, the residential variant would provide one off-street freight loading space accessible from Washington Street and two service vehicle spaces in the basement-level

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<sup>75</sup> The Merchant Street loading spaces would be used for loading during the p.m. peak period (3 p.m. to 7 p.m.) and programmed with movable furniture during typical business hours.

<sup>76</sup> Peak loading demand is calculated using equations included in the SF Guidelines, which note that half of peak hour loading demand occurs during the peak 15 minutes and the average stop duration is one minute.

garage accessible from Merchant Street. The residential variant would generate demand for fewer truck loading spaces than the proposed project, with an estimated eight average daily freight loading occurrences and one peak hour freight loading occurrence. Occasionally, residential buildings are served by trucks larger than 30 feet, such as for move-in/move-out activities. These vehicles would need to load at convenient loading zones (e.g., within 250 linear feet of the project site) on adjacent streets, such as at the yellow loading zones on the west side of Sansome Street south of Merchant Street. Individuals or building management would be required to reserve spaces through SFMTA's temporary signage program. Therefore, the off-street freight supply alone would be sufficient to accommodate the residential variant's peak hour (11 a.m. to 2 p.m.) freight loading demand.

Similar to the proposed project, the residential variant's off-street freight loading space would be located on the Washington Street frontage approximately 100 feet east of the Sansome Street curb face and is designed to accommodate a 30-foot-long freight trucks without blocking the sidewalk on Washington Street. The loading dock would include features similar to those in the proposed project and would not conflict with operations of the replacement fire station. Further, the residential variant would include similar streetscape features that would remove a similar number of existing freight loading spaces and existing freight loading demand could be accommodated in nearby freight loading spaces. Therefore, freight loading activity generated by the residential variant and the removal of existing freight loading spaces would not result in an unmet freight loading demand that would create potentially hazardous conditions people walking, bicycling, or driving, or substantially delay public transit. In addition, the proposed project or residential variant would implement a driveway loading and operations plan, which would create protocols for large vehicle deliveries (such as residential move-in) to ensure that these infrequent activities do not introduce potentially hazardous conditions for other roadway users. Thus, the residential variant would result in a **less-than-significant** freight loading impact.

**Passenger Loading.** Similar to the proposed project, the residential variant would provide an approximately 100-foot-long passenger loading zone (approximately five spaces) on Sansome Street and an approximately 40-foot-long p.m. peak traffic period (3 p.m. to 7 p.m.) passenger loading zone (approximately two spaces) on Merchant Street.<sup>77</sup> The residential variant would generate demand for 12 p.m. peak-hour passenger loading occurrences and one passenger loading space per minute during the peak 15-minute period of the peak loading period.<sup>78</sup> Similar to the proposed project, the passenger loading demand generated by the residential variant would be accommodated within the passenger loading zones on Sansome or Merchant streets during the p.m. peak period. A valet service for residents would be stationed at each passenger loading zone, similar to the proposed project. Therefore, similar to the proposed project, the residential variant would not result in an unmet passenger loading demand that would create potentially hazardous conditions for people walking, bicycling, or driving or substantially delay public transit. Thus, the residential variant would result in a **less-than-significant** impact on passenger loading conditions.

## CUMULATIVE TRANSPORTATION IMPACTS

The analysis of whether the proposed project would contribute considerably to any significant cumulative impacts takes into account foreseeable changes in the transportation network; land development projects within approximately 0.25 mile of the project site that are approved or under review (see Table 3, p. 35). The cumulative projects from Table 3 included in the analysis are the 447 Battery Street and 545 Sansome Street

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<sup>77</sup> The Merchant Street loading spaces would be used for loading during the p.m. peak period (3 p.m. to 7 p.m.).

<sup>78</sup> Peak passenger loading demand is calculated using equations included in the 2019 SF Guidelines, which note that half of peak hour passenger loading demand occurs during the peak 15 minutes and the average stop duration is one minute.

projects. These cumulative projects are described below. Other foreseeable changes in the transportation network and land development projects either would have a negligible effect on transportation and circulation in the immediate vicinity of the project site or are still in the planning stages where a detailed project description is not available.

- 447 Battery Street Project – A new mixed-use hotel building that would include streetscape and color curb changes to Merchant and Battery streets.
- 545 Sansome Street Project – An approximately 50,000-square-foot office and 2,400-square-foot retail addition to an existing mixed-use retail and office building; no streetscape changes are proposed.
- Muni Forward – SFMTA is planning to implement the following Muni Forward service changes through the study area:
  - *10 Townsend*: Improve headways during the weekday a.m. and p.m. peak periods (from 20 minutes to 6 minutes) and during the weekday mid-day period (from 20 minutes to 10 minutes). South of the study area SFMTA would change the route west of Fourth Street through Showplace Square and the northern portions of Potrero Hill (replacing the existing route via Townsend Street with a new route through Mission Bay) and at the southern terminal near San Francisco General Hospital.
  - *12 Folsom/Pacific*: Replace the 12 Folsom/Pacific south of Washington Street/Clay Street through the Financial District, Transbay, Central SoMa, West SoMa, and the Mission with a new 11 Downtown Connector, and to the north with a more frequent 10 Townsend. The new 11 Downtown Connector route would follow Columbus Avenue, Powell Street, and North Point Street through North Beach and Fisherman's Wharf to a terminus at Aquatic Park (Van Ness Avenue/North Point Street).

**Impact C-TR-1: The proposed project or residential variant, in combination with cumulative projects in the vicinity of the project site, would not result in a considerable contribution to construction-related cumulative transportation and circulation impacts. (*Less than Significant*)**

Construction of the proposed project or residential variant may overlap with construction of the nearby projects at 447 Battery Street and 545 Sansome Street, which are adjacent to and across the street from the project site, respectively. The Muni Forward program does not include any physical construction through the study area.

While the construction timing of the 447 Battery Street project is currently unknown, under a worst-case scenario (i.e., a most impactful scenario), it would begin in December 2021 and overlap with construction of the proposed project or residential variant. If construction were to start before or after December 2021, the impacts associated with the combined construction would be less than those discussed below as peak construction activities would not overlap. In general, the two projects are expected to have similar truck routes, although the 447 Battery Street project would provide primary access to the project site from Washington and Battery streets rather than Sansome Street. The construction schedule for the 545 Sansome Street project is also unknown; however, it would likely be much shorter than that for the proposed project or residential variant or the 447 Battery Street project as it includes the expansion of an existing building rather than construction of a new building. For the purposes of a conservative analysis, the construction period for the 545 Sansome Street project is assumed to occur at the same time as the proposed project or residential variant and the 447 Battery Street project.

The combination of the proposed project or residential variant and 447 Battery Street project would increase the average number of truck trips accessing the site by 29 truck trips and 155 worker trips over the length of

the proposed project or residential variant's construction schedule for 29 months. The maximum daily number of trucks required at either site would increase from 60 trucks to 120 trucks during the site preparation and grading/excavation phases. While construction of the two projects would temporarily increase traffic to the proposed site, cumulative conditions would not substantially differ from the project-specific conditions identified in Impact TR-1 for the proposed project or residential variant. The construction schedules and truck and worker routes required for the 545 Sansome Street project are unknown. However, the construction activities for the 545 Sansome Street project would be relatively minor compared to the proposed project or residential variant or 447 Battery Street project. The 545 Sansome Street project would require fewer workers and vehicles on-site as it includes the expansion of an existing building rather than construction of a new building. Although the 545 Sansome Street project is across the street from the 530 Sansome Street project site, a different route would be required for construction trucks to access that site as trucks would not be allowed to turn left into the 545 Sansome Street project site from Sansome Street. Therefore, they would approach from Washington Street, which would generally not overlap with the primary access to the proposed project or residential variant.

Given the uncertainty of the construction timing for the above cumulative projects, if construction periods do overlap for the proposed project or residential variant and these cumulative projects, the proposed project or residential variant would be required to obtain a special traffic permit from SFMTA prior to the commencement of any construction work and comply with all applicable requirements in the Blue Book and public work code. As conditions for the special traffic permit, the sponsor for the 530 Sansome Street project would be required to work with various city departments to develop measures to minimize potential construction impacts related to construction vehicle routing, traffic control, transit vehicle operations, and accessibility and safety for people walking and biking adjacent to the construction area.

Overall, the proposed project or residential variant and the cumulative projects' construction activities would be temporary and limited in duration, and conducted in accordance with city requirements. Thus, the proposed project or residential variant, in combination with cumulative projects in the vicinity of the project site, would result in **less-than-significant** cumulative construction-related transportation impacts.

**Impact C-TR-2: The proposed project or residential variant, in combination with cumulative projects in the vicinity of the project site, would not result in a considerable contribution to operation-related cumulative transportation and circulation impacts. (*Less than Significant*)**

**Hazardous Conditions for People Walking, Bicycling, or Driving, or Public Transit Operations.** As discussed in Impact TR-2, the proposed project or residential variant would not create potentially hazardous conditions for people walking or bicycling or otherwise interfere with bicycle or pedestrian accessibility to or from the site or adjoining areas. Likewise, none of the cumulative projects would create potentially hazardous conditions for people walking or bicycling or otherwise interfere with bicycle or pedestrian accessibility to or from the site or adjoining areas. With respect to the Vision Zero designation of Washington Street from mid-block between Sansome and Battery streets extending to the west, the 447 Battery Street project would add 10 vehicles to this roadway segment, while the 545 Sansome Street project would add fewer than this.<sup>79</sup> The proposed Muni forward program would not add any vehicles to this roadway segment.

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<sup>79</sup> No transportation study is available for the 545 Sansome Street project (Case No. 2020-001410ENV). Based on extrapolating the 14 p.m. peak hour office vehicle trip generation for the proposed project's approximately 50,000 square feet of office use, this would result in fewer than 20 vehicle trips total on the roadway network.

This level of cumulative traffic (5 to 10 percent changes) would not represent a substantial increase in traffic nor result in potentially hazardous conditions along Washington Street.

Further, the fire department emergency vehicle access on Washington Street would include audible warnings to alert people walking and bicycling and would not substantially change fire station activities and, therefore, would not result in potentially hazardous conditions along Washington Street or other surrounding streets.

The proposed project or residential variant also would not conflict with any planned or proposed improvements to bikeway facilities or affect pedestrian conditions. The proposed project or residential variant propose the following physical changes to streets fronting the project site: streetscape changes along Merchant Street, a passenger loading zone along Sansome Street, a red curb on the south side of Washington Street, the removal of existing parking spaces on the north and south sides of Washington Street, and the removal of 7 of 14 existing on-street loading spaces on the block surrounding the project site. Although the proximity of the 447 Battery Street project to the proposed project or residential variant could result in an increase in vehicle traffic in the immediate vicinity of the project site, the increased vehicle activity would unlikely be large enough to create potentially hazardous conditions for people walking or bicycling. In particular, both the 447 Battery Street project and either the proposed project or residential variant would involve replacement of existing land uses that already generate some level of vehicle activity, and would not propose a substantial amount of accessory automobile parking (the proposed project and residential variant would include 48 and 82 on-site parking spaces, respectively; the 447 Battery Street project would include 24 spaces). The 447 Battery Street project proposes to widen the sidewalks along Merchant Street fronting the 447 Battery Street project site, and, similar to the proposed project, to create a POPOS in those widened sidewalks. This would narrow the portion of Merchant Street fronting the 447 Battery Street project and would be expected to slow vehicle traffic on Merchant Street.

The 545 Sansome Street project would not include any physical changes at the street-level; furthermore, the building does not have an off-street parking facility, and as such, vehicle traffic traveling to or from the project site would be dispersed to or from off-site public parking facilities at nearby locations. Therefore, the proposed project or residential variant, in combination with cumulative projects, would not result in a cumulative transportation impact on bicycle and pedestrian conditions. Accordingly, cumulative impacts related to this topic would be **less than significant**, and no mitigation measures are required.

**Accessibility.** The 447 Battery Street project would improve accessibility for people walking or bicycling surrounding the project site through streetscape improvements described above, while the 545 Sansome Street project would not affect accessibility because it would not include any changes to off-street parking, driveways, or the streetscape. While the sidewalk on Washington Street proposed by the project would not meet the Better Streets Plan standards, the highest number of people walking generated by the 447 Battery Street or 545 Sansome Street projects would occur along their project frontages. As discussed above in *Project-Level Transportation Impacts*, sidewalks along the project site frontages on Sansome and Merchant streets and, to a lesser extent, Washington Street, would host the majority of people walking to/from the project site; these sidewalks provide direct routes for a limited number of routes for people walking to and from the 447 Battery Street or 545 Sansome Street projects. Therefore, the 447 Battery Street or 545 Sansome Street projects would not generate a substantial amount of people walking on the sidewalks fronting the project site, and the proposed sidewalks would, therefore, be sufficient for anticipated cumulative pedestrian volumes and activity.

Similar to the existing plus project conditions discussed in Impact TR-3, the combination of the proposed project or the residential variant with cumulative projects would not create design features that would result in inadequate emergency access. The 447 Battery Street project's proposed streetscape changes on Merchant Street were reviewed to ensure that they provide adequate access for larger emergency vehicle trucks and were approved by the City's Street Design Advisory Team.<sup>80</sup> The proposed project or residential variant includes streetscape elements consistent with those proposed by the 447 Battery Street project, and would undergo similar review and approval process to ensure that emergency vehicle access is not inhibited by the combination of proposed streetscape changes for the two projects. The 447 Battery Street and 545 Sansome Street projects do not propose driveways or other physical features that would inhibit emergency vehicle access into or out of the replacement fire station. The proposed driveway for the 447 Battery Street project would be located on Merchant Street, same as the proposed project or residential variant, and the 545 Sansome Street project does not propose any driveways for access to off-street facilities. The proposed project or residential variant's measures to prioritize fire department emergency access would ensure that traffic growth under cumulative conditions, including traffic generated by the nearby 447 Battery Street and 545 Sansome Street projects, would not interfere with emergency vehicle access. These measures include the preemption traffic signal system on Washington Street at the Sansome Street and Battery Street intersections and a fire only lane and 'KEEP CLEAR' markings on Washington Street.

Based on the above discussion, the proposed project or residential variant in combination with cumulative projects would not interfere with accessibility related to pedestrian, bicycle, or emergency access; therefore, cumulative impacts would be **less-than-significant**.

**Public Transit Delay.** The combination of the proposed project (86 p.m. peak hour vehicle trips) and residential variant (28 p.m. peak hour vehicle trips) with the adjacent 447 Battery Street project (which would add an additional 48 p.m. peak hour vehicle trips during typical, non-special event conditions, and 87 p.m. peak hour vehicle trips during a regional event) would remain below the planning department's transit delay screening criterion of 300 p.m. peak hour vehicle trips under cumulative conditions. The only other cumulative project within a block of the project site, the 545 Sansome Street project, would add fewer than 20 p.m. peak hour vehicle trips to the roadway network. Therefore, the proposed project or residential variant would not combine with cumulative projects to cause substantial public transit delay. Therefore, this impact would be **less than significant**, and no mitigation measures are required.

**Vehicle Miles Traveled.** VMT by its nature is largely a cumulative impact. The number and distance of vehicular trips associated with cumulative projects might contribute to the secondary physical environmental impacts associated with VMT. It is likely that no single project by itself would be sufficient in size to prevent the region or state in meeting its VMT reduction goals. Instead, a project's individual VMT contributes to cumulative VMT impacts. The department uses near-term baseline plus project-level thresholds of significance based on levels at which the department does not anticipate new projects to conflict with state and regional long-term greenhouse gas emission reduction targets and statewide VMT per capita reduction targets.

Therefore, the planning department uses a map-based screening criterion to identify types and locations of land use projects that would not exceed the same quantitative thresholds of significance described under existing plus project conditions. The analysis uses the 2040 modeling of VMT estimates to present VMT for residential, office, and retail in San Francisco and the region. The planning department uses that data and

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<sup>80</sup> AECOM, *447 Battery Street Transportation Impact Study Final Report* (Case No. 2014-1036ENV), November 7, 2019.



associated maps to determine whether a project site’s location is below the aforementioned VMT quantitative threshold of significance, including for the other land use types described above.

**Table 6** presents the future (2040) average daily VMT per capita for residents for the nine-county San Francisco Bay Area and TAZ 804. The future average daily VMT per capita for residential uses in TAZ 804 (2.2 miles) is approximately 86 percent lower than the regional Bay Area average (16.1 miles). The future average daily VMT per employee for office uses in TAZ 804 (6.3 miles) is approximately 63 percent lower than the regional Bay Area average (17.1 miles). The future average daily VMT per employee for retail uses in TAZ 804 (7.9 miles) is approximately 46 percent lower than the regional Bay Area average (14.6 miles). As noted previously under *Project Travel Demand*, retail is presented as a proxy for the proposed gym and restaurant land uses, and the visitors and employees of the hotel would reflect the travel characteristics of retail and office space. Because the project site is in an area where the VMT for the land uses in the proposed project or residential variant are each more than 15 percent below future 2040 regional averages, the proposed project or residential variant’s contribution to any substantial cumulative increase in VMT would be less than considerable. Therefore, this impact would be **less than significant**, and no mitigation measures are required.

**Table 6** Average Daily Vehicle Miles Traveled in TAZ 804 (Cumulative 2040)

Land Use	Bay Area Regional Average	Bay Area Regional Average Minus 15% (Significance Threshold)	TAZ 804
Residential	16.1	13.7	2.2
Office	17.1	14.5	6.3
Retail	14.6	12.4	7.9

SOURCE: San Francisco Transportation Information Map, 2019; Fehr & Peers, 2020.

**Loading.** As discussed in Impact TR-6, the proposed project or residential variant would not create result in a loading deficit.

PROPOSED PROJECT

The combination of the proposed project and the 447 Battery Street project would remove all of the existing freight loading along the frontages of the project site block on Merchant, Battery, and Washington streets, while also removing the existing land uses that generate demand for on-street freight loading. The proposed Muni Forward improvements would not affect loading conditions in the study area.

Under the condition where the Merchant Street POPOS is extended the length of Merchant Street (in coordination with the proposed project or 447 Battery Street project), the four remaining freight loading spaces on the east side of Battery Street would serve the freight demand for existing land uses to the east of the project site. The 447 Battery Street project would accommodate its expected freight loading demand through the provision of an off-street loading dock and therefore would not create an unmet freight loading demand. The transportation study prepared for the 447 Battery Street project identifies Improvement Measure I-Loading-1: Management of Freight Loading/Service Vehicle Activities, which includes the provision for attendants to help manage the freight loading dock in the case that special events or other loading

activities generate more freight loading demand than can be accommodate off-street.<sup>81</sup> The freight loading plans for the 545 Sansome Street project are not available. Freight loading activity associated with the 545 Sansome Street project would occur off-street if loading dock access is provided, or within the existing on-street loading zone on Washington Street along the 545 Sansome Street frontage and would therefore not generate freight loading that would overlap with the proposed project. Therefore, freight loading activity generated by the proposed project and nearby projects would not create potentially hazardous conditions for people walking, bicycling, or driving, or substantially delay public transit due to unmet freight loading demand. Thus, the cumulative freight loading impacts of the proposed project, in combination with the cumulative projects, would be less than significant.

Similar to the proposed project, the 447 Battery Street project would accommodate the anticipated passenger loading demand for that project (two simultaneous passenger loading events) within the proposed on-street passenger loading zone along the entire Battery Street frontage of that project site. The transportation study prepared for the 447 Battery Street project identifies Improvement Measure I-Loading-2, Management of Passenger Loading Activities, which includes the provision to monitor passenger loading activity to ensure that loading demand does not exceed supply and provide attendants to actively manage loading during special events that could occur at the proposed hotel.<sup>82</sup> Passenger loading activity on Battery Street associated with the 447 Battery Street project would not overlap with the passenger loading for the proposed project due to the adjacency of new proposed loading zones to each project's main building entrances. The additional office space proposed by the 545 Sansome Street project would generate less passenger loading activity compared to the 447 Battery Street project due to the smaller size of the project. This activity would occur along the 545 Sansome Street project's frontage on Washington Street and would not interfere with passenger loading activities of the proposed project on Sansome and Merchant streets, as people arriving at or leaving a building or other destination typically do so as close to the entrance as possible.

Therefore, passenger loading activity generated by the proposed project and nearby cumulative projects would not combine to create potentially hazardous conditions for people walking bicycling, or driving, or substantially delay public transit due to unmet passenger loading demand. Thus, the cumulative passenger loading impacts of the proposed project, in combination with the cumulative projects, would be **less than significant**.

## RESIDENTIAL VARIANT

The residential variant would generate less freight loading and passenger loading demand than the proposed project while providing the same number of freight and passenger loading spaces. Therefore, similar to the proposed project, the cumulative passenger and freight loading impacts of the residential variant, in combination with cumulative projects, would be **less than significant**.

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<sup>81</sup> Ibid.

<sup>82</sup> Ibid.

## 6. Noise

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>6. NOISE.</b> Would the project:					
a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generate excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not within an airport land use plan area, nor is it in the vicinity of a private airstrip. Therefore, topic E.6(c) is not applicable and is not discussed further.

The information in this section is based on a noise and vibration analysis prepared for the proposed project and residential variant, which is included as Appendix C to this initial study.<sup>83</sup>

**Impact NO-1: Construction of the proposed project or residential variant would not generate substantial temporary or periodic increases in ambient noise levels in the project vicinity. (Less than Significant)**

The Federal Transit Administration (FTA) has developed general quantitative assessment criteria for analyzing construction noise, which is based on the simultaneous operation of the two noisiest pieces of equipment. The general assessment criteria sets construction noise limits, as summarized in **Table 7**. To evaluate a reasonable worst-case scenario, the analysis assumes that the two loudest pieces of equipment would operate simultaneously at the same location.

<sup>83</sup> Environmental Science Associates, *Final Noise Technical Memorandum - 530 Sansome Street Project*, March 31, 2021.

**Table 7** FTA General Assessment Criteria for Construction Noise Limits

Land Use	One-hour Leq (dBA)	
	Day	Night
Residential	90	80
Commercial	100	100
Industrial	100	100

SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Office of Planning and Environment, 2018, [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123\\_0.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf), accessed December 10, 2020.

ABBREVIATIONS:

dBA = A-weighted decibel  
Leq = equivalent sound level

### **EXISTING NOISE IN THE PROJECT VICINITY**

Two long-term (24-hour) and one short-term (15-minutes) ambient noise measurements were taken near the project site in order to establish the existing ambient noise levels in the project area. Two long-term (24-hour) ambient noise measurements were collected between Tuesday August 27 and Wednesday August 28, 2019, adjacent to residential apartments on the northeast corner of Battery and Washington streets and adjacent to the Club Quarters Hotel on the corner of Merchant and Battery streets.<sup>84</sup> These measurements were conducted prior to shelter-in-place orders resulting from Covid-19 and are therefore representative of more typical traffic levels within the Financial District.<sup>85</sup> One short-term noise measurement was taken on Wednesday, December 2, 2020 to establish existing daytime noise levels at more distant residential receptors near the intersection of Hotaling Place and Washington Street.

The noise measurement sites are shown in **Figure 26**. **Table 8** summarizes the results of the noise measurement survey.

<sup>84</sup> City and County of San Francisco, *Draft Environmental Impact Report, 447 Battery Street Project, Case 2014-1036E, Appendix B, Initial Study*, October 21, 2020.

<sup>85</sup> The complete dataset of measured noise levels is available in Environmental Science Associates, *Noise Technical Memorandum – 530 Sansome Street Project*, March 31, 2021.

**Table 8 Summary of Long-Term and Short-Term Noise Monitoring in the Project Vicinity**

Measurement Location		Date and Time Period	Daytime L <sub>eq</sub> dBA	24-hour L90 dBA	L <sub>dn</sub>	Noise Sources
<b>LONG-TERM MEASUREMENTS (24 HOURS)</b>						
LT-1	Near 550 Battery Street, in front of the Gateway Apartments	August 27, 2019	73	65	75	Vehicle and bus traffic
LT-2	Southeast of project site at corner of Merchant and Battery Streets, adjacent to existing hotel building	August 27, 2019	69	63 <sup>a</sup>	76	Vehicle and bus traffic
<b>SHORT-TERM MEASUREMENT (15 MINUTES)</b>						
ST-1	Northeast corner of Washington Street and Hotaling Place	December 2, 2020	65	60 <sup>b</sup>	NA	Vehicle traffic <sup>c</sup>

SOURCES: ICF, 2019; ESA, 2021.

NOTES:

NA = data point not applicable to short term measurements

LT = Long-Term

ST = Short Term

<sup>a</sup> This L90 metric is a 24-hour average. The nighttime average (10 p.m. to 7 a.m.) is 62 dBA.

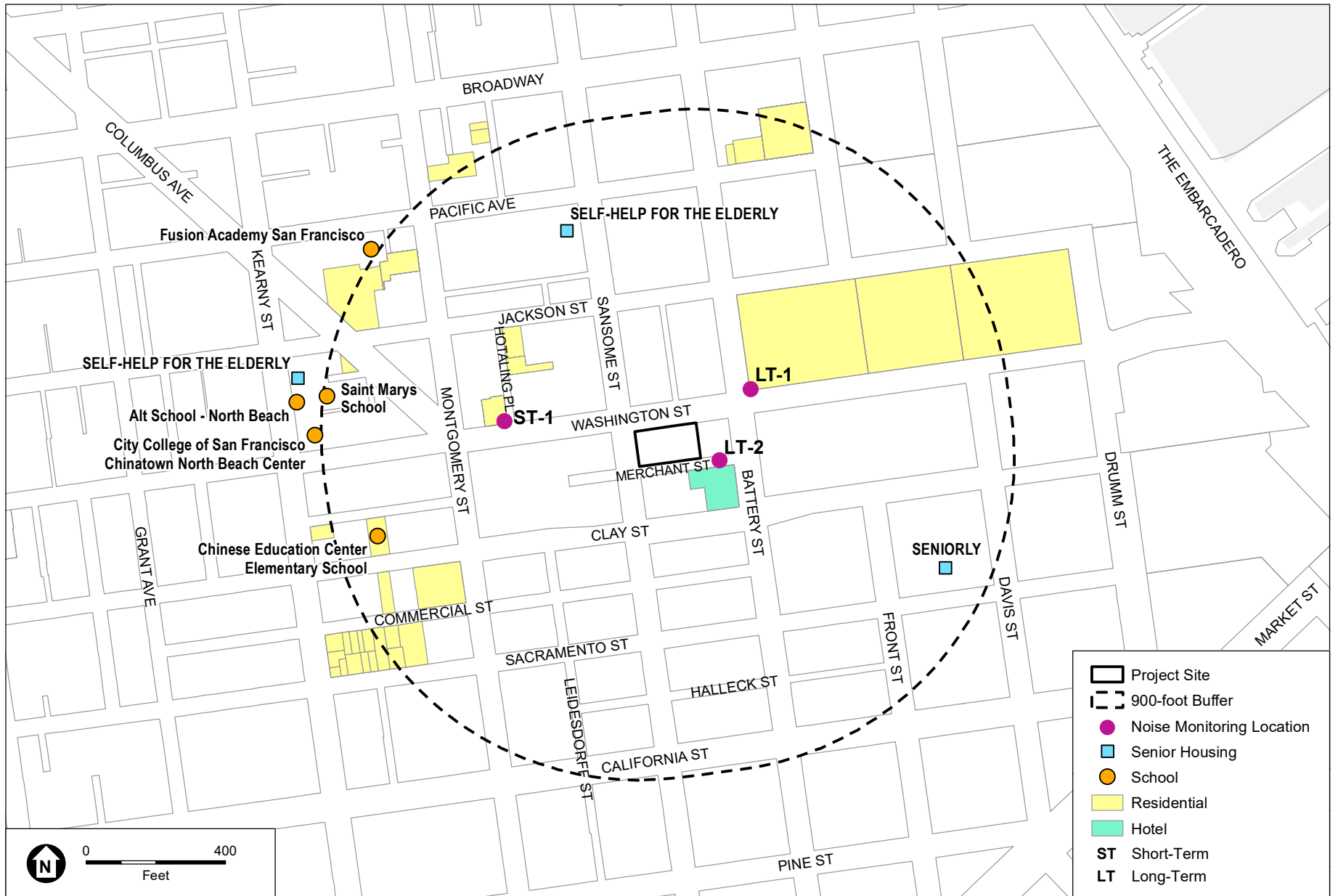
<sup>b</sup> The L90 metric for the short-term measurement is not a 24-hour average.

<sup>c</sup> During monitoring, the noise technician noted use of a standard, consumer grade sander at Hotaling Place. The sander was used intermittently during the monitoring event and contributed marginally to the recorded noise level based on the observations of the noise technician.

Existing noise levels in the project area are characteristic of an urban/city environment, with both long-term measurements having a day-night sound level (L<sub>dn</sub>) of 75 dBA or greater. Fire Station 13 is located on the project site, approximately 300 feet from the noise measurement location LT-1. The fire station contributes intermittent siren and truck noise to the ambient noise environment.

**EXISTING SENSITIVE RECEPTORS**

Some land uses are more sensitive to noise levels than others due to the types of activities typically associated with the uses. Residences, hotels, schools, senior care facilities, and hospitals are generally more sensitive to noise than commercial and industrial land uses. There are no existing hospitals or skilled nursing facilities within 900 feet of the project site. The Gateway Apartments are located at 550 Battery Street (LT-1 in Figure 26) and is the nearest residential receptor in the project vicinity. The Club Quarters Hotel at 424 Clay Street (LT-2 in Figure 26) is approximately 35 feet southeast of the project site and while a commercial use, would be considered a sensitive receptor during nighttime hours. Other residential uses are located on the upper floors of Hotaling Place (ST-1 in Figure 26), approximately 360 to 480 feet west of the project site.



SOURCE: San Francisco Planning Department, 2020; Google, 2020; ESA, 2021

530 Sansome Street; Case No: 2019-017481ENV

**FIGURE 26**  
**NOISE MONITORING LOCATIONS AND SENSITIVE RECEPTORS WITHIN 900 FEET OF THE PROJECT SITE**

## DAYTIME CONSTRUCTION NOISE EVALUATION

**Table 9** shows the hourly noise levels ( $L_{max}$ ) produced by various types of equipment proposed by the project sponsor at a reference distance of 50 feet between the equipment and noise receptor as well as the 100-foot distance dictated by the city’s noise ordinance. Section 2907 of the city’s noise ordinance prohibits operation of any powered construction equipment (non-impact), regardless of age or date of acquisition, if such operation emits noise at a level in excess of 80 dBA when measured at a distance of 100 feet from such equipment. As shown in Table 9, construction equipment used for the proposed project or residential variant would operate within the constraints of the noise ordinance standards.

**Table 9 Maximum Noise Levels from Construction Equipment**

Construction Equipment	Noise Level at 50 Feet (dB, $L_{max}$ )	Noise Level at 100 Feet (dB, $L_{max}$ )
Air Compressors	78	72
Backhoes	78	72
Bore/Drill Rigs	84	78
Vibratory Compactor	83	77
Cranes	81	75
Concrete truck	79	73
Concrete Pump	81	75
Excavator	81	75
Forklifts	83	78
Pavers	77	71
Paving Equipment	77	71
Roller	80	74
Skid steer loaders	79	73
Sweepers	82	76

SOURCE: Federal Highway Administration, *Roadway Construction Noise Model User’s Guide*, 2006.

The daytime construction noise analysis quantitatively evaluates noise from the two loudest pieces of equipment at sensitive receptor locations to determine if construction noise would exceed 90 dBA at a residential receptor during daytime hours or would be 10 dBA above the ambient noise level. If so, the evaluation then qualitatively considers the frequency, duration, and intensity of noise levels in determining whether the proposed project or residential variant would result in a significant noise impact. Analysis of construction noise relative to the FTA’s commercial and industrial general assessment criterion of 100 dBA noise limit, as shown in **Table 10**, is also considered. Table 10 shows the worst-case noise levels for each major phase of construction. Construction for the proposed project or residential variant would use the same equipment and construct a replacement fire station and similar 219-foot-tall tower; therefore, construction noise is anticipated to be the same under the proposed project or residential variant. As noted above, the worst-case noise levels assume that the two loudest pieces of equipment from each construction phase would be operating simultaneously. Detailed tables regarding noise from each construction phase are included in Appendix C of this initial study.

**Table 10 Exterior Noise at Nearest Off-Site Sensitive Use from Daytime Construction**

Construction Phase	Nearest Off-Site Sensitive Receptor	Distance to Receptor (feet) <sup>a</sup>	Existing Monitored Noise Level (dBA L <sub>eq</sub> ) <sup>b</sup>	Loudest Two Noise Sources	Estimated Construction Noise Level (dBA L <sub>eq</sub> )	Exceed 90 dBA Exterior Daytime Standard?	Resultant Noise Level (Existing + Construction) (dBA L <sub>eq</sub> )	Increase over Existing (dBA L <sub>eq</sub> )	Exceed Ambient + 10 dBA Standard?
Phase 1: Demolition	Residential: 500 Battery Street	300	73	Backhoe Backhoe	61	No	73	0	No
Phase 2: Site Preparation	Residential: 500 Battery Street	300	73	Compactor Excavator	62	No	73	0	No
Phase 3: Grading/Excavation	Residential: 500 Battery Street	300	73	Drill Rig Excavator	65	No	74	1	No
Phase 4: Drainage/ Utilities/Subgrade	Residential: 500 Battery Street	300	73	Backhoe Compactor	63	No	73	0	No
Phase 5: Foundations	Residential: 500 Battery Street	300	73	Drill Rig Excavator	65	No	74	1	No
Phase 6: Building Construction/ Architectural Coatings/Paving	Residential: 500 Battery Street	300	73	Crane Forklift	65	No	74	1	No

SOURCE: ESA, 2021.

NOTES:

<sup>a</sup> The approximate distances are measured from the nearest edge of the construction activity (excluding restriping of roadways and bike lanes) to the nearest sensitive-receptor property line.

<sup>b</sup> Though existing noise levels in the general project area vary between 65 and 73 dBA, the monitored noise level of 73 dBA in this table is specific to the nearest receptor being analyzed at 500 Battery Street (where potential for noise impacts would be highest).



As shown in Table 10,  $L_{eq}$  noise levels would range from 61 to 65 dBA at the nearest daytime (residential) receptor at a distance of 300 feet. The construction noise would be below the FTA general assessment criterion of 90 dBA for sensitive residential receptors.

For the evaluation of noise impacts with respect to the 10 dBA increase above ambient noise levels, construction noise is added to the daytime ambient  $L_{eq}$  noise level in the project area, which range from approximately 65 to 73 dBA. Though existing noise levels in the general project area vary between 65 and 73 dBA, as reflected in Table 10, noise levels at the sensitive receptors nearest to the project site (where potential for noise impacts would be highest) measure at 73 dBA. As shown in Table 10, the estimated daytime construction noise levels generated by the proposed project would range from 61 to 65 dBA  $L_{eq}$  at the nearest residential receptor. Daytime noise during all phases of construction would not result in an increase of greater than 10 dBA over existing levels at the nearest sensitive receptor or exceed the 90 dBA criterion for daytime construction noise at a residential receptor. Therefore, this impact would be **less than significant**.

### **CONSTRUCTION TRUCK HAULING NOISE IMPACTS**

Construction of the proposed project or residential variant would require the use of on-road vehicles to deliver and haul materials to and from the site. Maximum daily haul and vendor truck trips are anticipated to be approximately 60 truck trips per day. Spread across the proposed 10-hour workday, maximum hourly truck trips would be approximately six per hour. These six hourly truck trips would contribute 57.2 dBA to the hourly  $L_{eq}$  level at 50 feet from the roadway center.<sup>86</sup> As shown in Table 8, p. 93, daytime hourly  $L_{eq}$  monitored in the project vicinity is 69 dBA. The addition of the project's haul and vendor trucks would result in an increase of less than 0.3 dBA over existing noise levels and would not result in a perceptible increase in noise. Therefore, there would be no substantial increase in noise from construction traffic and this impact would be **less than significant**.

### **NIGHTTIME CONSTRUCTION NOISE IMPACTS**

Section 2908 of the San Francisco Police Code prohibits any person between the hours of 8 p.m. of any day and 7 a.m. of the following day from erecting, constructing, demolishing, excavating for, altering, or repairing any building or structure if the noise level created is in excess of the ambient noise level by 5 dBA at the nearest property line, unless a special permit has been applied for and granted.

Although most of the construction equipment would operate only during daytime hours, the proposed project or residential variant would require construction activities that would extend beyond normal hours (i.e., between 8 p.m. and 7 a.m.), such as a 20-hour concrete pour, crane and hoist erection and adjustment activities, utility work, site maintenance activities and material delivery and handling.

The analysis of nighttime construction noise considers the closest sensitive receptor at 424 Clay Street (Club Quarters Hotel), located 35 feet southeast of the project site. Although the receptor at 424 Clay Street is a commercial use, it is considered a sensitive receptor during nighttime hours as it is a land use where people would reasonably be expected to sleep. The receptor distance for nighttime concrete pours assumes concrete mixer trucks and concrete pumps would be on Sansome or Washington streets, which are approximately 150 feet from 424 Clay Street. As shown in **Table 11**, the existing  $L_{90}$  ambient nighttime noise

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<sup>86</sup> Based on the Federal Highway Administration's Traffic Noise Model.

level at monitoring location LT-2 at the 424 Clay Street is 62 dBA. Therefore, the applicable nighttime construction standard would be 67 dBA.

**Table 11** Nighttime Noise Levels from Concrete Pours

Receptor	Existing Nighttime Noise Level (dBA, Leq)	Noise Source	Reference Noise Level (dBA) <sup>a</sup>	Distance to Receptor <sup>a</sup> (feet)	Adjusted Leq Level (dBA)	Exceed 80 dBA Exterior Nighttime Standard?	Existing plus Construction Noise Exterior Noise Level (dBA)	Existing plus Construction Noise Interior Noise Level (dBA)	Exceed 45 dBA Interior Nighttime Standard?
424 Clay Street	62 <sup>b</sup>	Concrete truck and concrete pump on Washington Street or Sansome Street	79 81	150	68	<b>No</b>	69	<b>44</b>	No

SOURCE: ESA, 2021.

<sup>a</sup> Distance for nighttime concrete pours assumes concrete mixer trucks and concrete pumps would be on Sansome Street or Washington Street.

<sup>b</sup> The existing nighttime value is the average of the monitored L90 metric between the hours of 10 p.m. and 7 a.m.

As shown in Table 11, nighttime concrete pours would be expected to result in a nighttime noise level of 69 dBA, which would result in noise levels 5 dBA or more above existing nighttime noise levels.

Nighttime noise impacts are also assessed based on FTA’s 80 dBA exterior noise criterion and for the potential to result in sleep disturbance at nearby residential and hotel uses (increase interior noise levels above 45 dBA) as established in the police code. For the nearest receptor to the project site at 424 Clay Street, a standard assumption of exterior-to-interior noise reduction of 25 dBA with windows closed is applied.<sup>87</sup> As shown in Table 11, noise levels from nighttime concrete pours would be up to 67 dBA at the closest receptor at 424 Clay Street, which is below the 80 dBA exterior nighttime criterion for residential receptors.

Also presented in Table 11 is the predicted interior noise levels from nighttime concrete pours at the nearest sensitive receptor located at 424 Clay Street. Interior noise levels at the hotel receptor from nighttime deliveries would be below the 45 dBA standard.

Nighttime construction of the proposed project or residential variant would not exceed the 80 dBA exterior noise criterion or the 45 dBA interior noise criterion, but could result in nighttime noise levels exceeding the existing ambient noise levels by 5 dBA or more at the sensitive receptor location at 424 Clay Street. The nighttime work would therefore require a special permit from the director of public works or the director of the building department for noise that would exceed the ambient noise level by 5 dBA at the nearest property plane. The project sponsor would need to comply with all requirements of the special permit to engage in nighttime work; therefore, nighttime noise would be subject to the limits of the permit that is granted. Nighttime construction noise resulting from the proposed project or residential variant would be **less than significant**.

<sup>87</sup> U.S. EPA, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974, <http://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.pdf>, accessed January 23, 2019.

**Impact NO-2: Operation of the proposed project or residential variant would not generate substantial temporary or periodic increases in ambient noise levels in the project vicinity. (*Less than Significant*)**

Section 2909 of the San Francisco Police Code, enforced by the health department during the day and the police department during the night, limits stationary-source noise and generally prohibits noise levels from any machine, device, or music or entertainment venue (or any combination) as follows:

- a. For residential properties, no more than 5 dBA above the local ambient noise level, as measured at any point outside the property plane;
- b. For commercial and industrial properties, no more than 8 dBA above the local ambient noise level, as measured at any point outside the property plane;
- c. For public property, no more than 10 dBA above the local ambient noise level at a distance of 25 feet or more from the noise source (unless the noise source is being operated to serve or maintain the property or as otherwise provided in the noise ordinance); and
- d. In order to prevent sleep disturbance, protect public health and prevent the acoustical environment from progressive deterioration due to the increasing use and influence of mechanical equipment, no fixed noise source may cause the noise level measured inside any sleeping or living room in any dwelling unit located on residential property to exceed 45 dBA between the hours of 10 p.m. and 7 a.m. or 55 dBA between the hours of 7 a.m. and 10 p.m. with windows open except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

The criteria provided in section 2909(a) through (c) are limits for the specified locations (e.g., the property plane, or for public properties, 25 feet from the noise source) and do not refer to a receptor. Section 2909(d) establishes maximum noise levels for fixed sources (e.g., mechanical equipment) at sensitive receptors (i.e., 55 dBA from 7 a.m. to 10 p.m. and 45 dBA from 10 p.m. to 7 a.m.) inside any sleeping or living room in any dwelling unit on residential property to prevent sleep disturbance with windows open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

Common noise sources in San Francisco that typically do not result in a substantial temporary increase in ambient noise levels include emergency backup generator testing, provided a project proposes no more than two emergency back-up generators. For both the proposed project or residential variant, a backup generator with an assumed 400 horsepower power output would be installed for the 219-foot-tall tower. Under either the proposed project or residential variant, the existing 200 horsepower generator at Fire Station 13 would be replaced by a 464-horsepower generator. Both generators would be located on the building rooftops and within a mechanical penthouse. These generators would only operate for approximately one hour per week for testing purposes; therefore, due to the infrequent nature of the noise source, the proposed generators would not result in a substantial increase in ambient noise levels and these sources are not considered further.

## PROPOSED PROJECT

Stationary mechanical equipment at the project site, including building equipment, would contribute to the ambient noise environment. The proposed project would introduce new stationary noise sources, including heating, ventilation, and air-conditioning (HVAC) equipment, exhaust fans, a chiller, cooling towers, and an emergency generator. All equipment in the mechanical penthouse would be shielded by the shell of the mechanical penthouse, which would attenuate noise and avoid disturbances for hotel guests. As noted

above, operation of stationary mechanical equipment of the proposed project would be subject to section 2909(b) of the San Francisco Police Code, which limits noise produced at commercial and industrial properties to no more than 8 dBA above the local ambient condition at any point outside the property plane. In addition, stationary mechanical noise would be limited by section 2909(d), which provides that noise from stationary mechanical equipment at residential interiors cannot exceed 55 dBA during daytime hours (7 a.m. to 10 p.m.) and 45 dBA during nighttime hours (10 p.m. to 7 a.m.).

Although the exact noise levels from stationary equipment cannot be quantified at this time, some of the louder equipment, such as HVAC equipment and exhaust fans, can produce sound levels in the range of 70 to 75 dBA at 50 feet, depending on the size of the unit.<sup>88</sup> All equipment would be located in the mechanical penthouse at the top of the buildings and therefore would be shielded.

As shown in Table 8, p. 93, the ambient (24-hour L90) noise level measured at LT-2 on Merchant Street closest to the project site was 63 dBA. Therefore, the applicable standard under section 2909(b) would be 71 dBA (63 dBA + 8 dBA) outside the property plane at ground level, which is where the measurement was taken. The proposed project's HVAC equipment would be located in the mechanical penthouse at the top of the building, which would attenuate noise levels due to vertical separation. The hotel to the southeast at 424 Clay Street (11 stories), and the commercial building to the east at 423 Washington Street (seven stories) and 447 Battery Street (three stories) are mid- or low-rise buildings; therefore, there would be a substantial vertical distance between the proposed project and residential variant's mechanical penthouse (above the 19th story) and the top floors of the adjacent buildings. At minimum, the eight stories of vertical attenuation (approximately 100 feet) between the project's mechanical penthouse and the 11 story hotel at 424 Clay Street would reduce noise by 6 dBA, and the penthouse enclosure would reduce noise by an additional 5 dBA. Therefore, the distance provided by the vertical separation and the shielding provided by the penthouse enclosure would reduce noise levels from the stationary mechanical equipment by 11 dBA, which would result in ground-level noise of 64 dBA. This would be below the applicable 2909(b) standard of 71 dBA.

Stationary mechanical equipment, which would result in a noise level of 64 dBA at the ground level would result in interior noise levels at the closest nighttime receptor (424 Clay Street) of 39 dBA, assuming 25 dBA of exterior to interior attenuation from the building shell.<sup>89</sup> This interior noise level would be below the nighttime noise standard of 45 dBA. Therefore, stationary mechanical equipment noise from the proposed hotel would not exceed the section 2909(b) or 2909(d) standards.

The replacement fire station would also have a mechanical penthouse for its independent equipment above the fourth floor on the east end of the building. As a public land use, the applicable standard under section 2909(c) would be ambient noise (63 dBA) plus 10 dBA, or 73 dBA. Assuming a high-end HVAC equipment sound levels of 75 dBA and similar to the HVAC equipment for the proposed hotel, the mechanical penthouse would attenuate noise by at least 5 dBA. However, given the placement of the HVAC equipment above the fourth floor, there would be no vertical distance attenuation similar to the proposed hotel. As such, noise at the ground level for the replacement fire station's stationary mechanical equipment would be 70 dBA at the property line, which would be below the applicable section 2909(c) standard of 73 dBA for this public land use.

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<sup>88</sup> Hoover and Keith, *Noise Control for Buildings and Manufacturing Plants, Equipment and Products*, 1981.

<sup>89</sup> U.S. EPA, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974, <http://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.pdf>, accessed November 25, 2020.

Stationary mechanical equipment of the replacement fire station, which would result in a noise level of 70 dBA at the ground level, as discussed above, would result in interior noise levels at the closest nighttime receptor (424 Clay Street) of 45 dBA, assuming 25 dBA of exterior to interior attenuation from the building shell.<sup>90</sup> This interior noise level would not exceed the nighttime noise standard of 45 dBA. Therefore, stationary mechanical equipment noise of the replacement fire station would not exceed the section 2909(c) or 2909(d) standards.

Consequently, the stationary mechanical equipment associated with the proposed project and replacement fire station would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in sections 2909(b), 2909(c), and 2909(d). This impact would be **less than significant**, and no mitigation measures would be required.

## RESIDENTIAL VARIANT

Operation of stationary mechanical equipment for the residential variant would be subject to section 2909(a) of the noise ordinance, which limits noise produced at residential properties to no more than 5 dBA above the ambient condition at any point outside the property plane.

As shown in Table 8, p. 93, the ambient (24-hour L90) noise level measured at LT-2 on Merchant Street nearest to the project site was 63 dBA. Therefore, the applicable standard under section 2909(a) would be 68 dBA (63 dBA + 5 dBA) outside the property plan at ground level, which is where the measurement was taken.

As under the proposed project, all equipment in the mechanical penthouse would be shielded by the shell of the mechanical penthouse, which would attenuate noise and prevent disturbances for residents. Based on high-end of HVAC equipment sound levels of 75 dBA, operation of the residential variant's HVAC equipment would not produce noise greater than 71 dBA at any point outside the property plane at ground level on Merchant Street. Further attenuation would also occur due to the vertical distance between the mechanical penthouse and the nearest upper floors of existing adjacent buildings. Therefore, the distance provided by the vertical separation and the shielding provided by the penthouse enclosure would reduce noise levels from the stationary mechanical equipment by 11 dBA, which would reduce the ground level noise to 64 dBA. This would be below the applicable 2909(a) standard of 68 dBA.

Stationary mechanical equipment would result in a noise level of 64 dBA at the ground level, similar to the proposed project. The HVAC equipment noise of the residential variant would result in interior noise levels at the closest nighttime receptor (424 Clay Street) of 39 dBA, assuming 25 dBA of exterior to interior attenuation from the building shell.<sup>91</sup> This interior noise level would be below the nighttime noise standard of 45 dBA. Therefore, stationary mechanical equipment noise from the residential variant would not exceed the section 2909(a) or 2909(d) standards.

The replacement fire station's mechanical penthouse under the residential variant would be the same as under the proposed project. As discussed above, noise at the ground level for the replacement fire station's stationary mechanical equipment would be 70 dBA at the property line, which would be below the applicable section 2909(c) standard of 73 dBA for this public land use. Stationary mechanical equipment of the fire station under the residential variant would also result in interior noise levels of 45 dBA at the closest nighttime

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<sup>90</sup> Ibid.

<sup>91</sup> Ibid.

receptor, which would not exceed the nighttime noise standard of 45 dBA. Therefore, stationary mechanical equipment noise of the replacement fire station would not exceed the section 2909(c) or 2909(d) standards.

The stationary mechanical equipment associated with residential variant and replacement fire station would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in section 2909(a), 2909(c), and 2909(d). This impact would be **less than significant**, and no mitigation measures are required.

### **OPERATIONAL FIRE STATION NOISE**

The existing fire station generates noise from sirens associated with emergency response calls and occasional truck maintenance operations. While the proposed project or residential variant would replace the existing station and relocate the vehicle access bays from Sansome Street to Washington Street, there would be no increase in number of employees, the service area, or the level of operations; therefore, the proposed project would have **no impact** with respect to an increase in operational noise associated with the fire station.

### **TRAFFIC NOISE**

The increase in traffic resulting from implementation of the proposed project or residential variant would increase the ambient noise levels at sensitive uses located in proximity to the project area. A doubling (100 percent increase) in traffic volumes would result in a 3 dBA change in the noise level, which is barely noticeable to the human ear. Therefore, any increase in traffic that would be less than a doubling in volume would not be noticeable to existing sensitive receptors in the project vicinity.

The proposed project and residential variant would generate up to 86 and 28 additional peak hour vehicle trips on the local roadway network, respectively. Peak hour traffic volume counts compiled by SFMTA indicate that existing peak hour volumes on Sansome and Washington streets are 323 and 425, respectively. Conservatively adding all of the proposed project's peak hour traffic to Sansome Street would increase traffic volumes by 27 percent, while adding all proposed project traffic to Washington Street would increase traffic volumes by 20 percent. The addition of the residential variant's peak hour traffic would increase traffic volumes on Sansome and Washington streets by 9 percent and 7 percent, respectively. These increases are well below the doubling of traffic volumes needed to produce a barely noticeable change in traffic noise (i.e., a doubling of traffic volumes). Therefore, traffic noise associated with the proposed project or residential variant would not exceed the identified criteria and the impact would be **less than significant**.

### **Impact NO-3: Construction of the proposed project or residential variant could generate excessive groundborne vibration or groundborne noise levels. (Less than Significant with Mitigation)**

The proposed project or residential variant could result in vibration impacts resulting from construction activities. Construction-related vibrations can potentially impact modern or historic structures or, if occurring during nighttime hours, can result in sleep disturbance. While construction vibration can also impact vibration-sensitive equipment, there are no hospitals near the project site that may contain vibration-sensitive equipment, such as magnetic resonance imaging equipment or high-resolution lithographic, optical, or electron microscopes. As such, the proposed project and residential variant would not cause vibration that would affect vibration-sensitive equipment and such potential impacts are not considered in the following analysis.

Once construction is complete, the proposed project or residential variant would not involve the use of heavy machinery that is often associated with large commercial or industrial uses. Therefore, no sources of operational vibration are anticipated as part of the proposed project or residential variant and this topic is not discussed further.

## **CONSTRUCTION VIBRATION**

The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to structural damage at the highest levels. Construction activities would include grading and excavation, which would have the potential to generate low levels of groundborne vibration. As such, existing structures located within 100 feet of the project site could be exposed to the generation of excessive groundborne vibration or groundborne noise levels related to construction activities.

Groundborne vibration levels resulting from construction activities at the project site were estimated using data published by the FTA.<sup>92</sup> Potential vibration levels resulting from construction of the proposed project or residential variant are identified for off-site locations based on their distance from construction activities.

The proposed project or residential variant would not involve types of construction activities that could generate excessive groundborne vibration, such as from impact pile-driving or blasting for building demolition. However, equipment used for grading and excavation activities, such as a vibratory compactor, caisson drill, and loaded trucks, could generate varying degrees of groundborne vibration, as shown in **Table 12**. The PPV levels for the types of construction equipment that would operate during the construction of the proposed project or residential variant, and vibration levels at the closest structures are identified in Table 12. Drilling and compaction activities at the project site could occur as close as 5 feet from the adjacent buildings at 423 Washington Street and 447 Battery Street. As shown in Table 11, temporary groundborne vibration levels from the caisson drill could reach as high as approximately 0.523 inch per second PPV if drilling for piles occurs within 5 feet of the adjacent building, and as high as approximately 1.23 inch per second PPV if vibratory compaction were to occur within 5 feet of the adjacent building. The proposed project or residential variant would also require the use of heavy trucks for material deliveries and off-site hauling of excavated soils. The groundborne vibration from the loaded trucks within 5 feet of the adjacent buildings could reach 0.44 inch per second PPV.

While the city has not adopted any thresholds for construction or operational groundborne vibration impacts, this analysis uses the vibration criteria established in Caltrans' *Transportation and Construction Vibration Guidance Manual* document to evaluate the impact of vibration on buildings. The most frequently used method to describe vibration impacts on buildings is peak particle velocity (PPV). As shown in **Table 13**, the Caltrans guidelines for assessing vibration damage potential to various types of buildings range from 0.08 to 0.12 inch per second PPV for extremely fragile historic buildings, ruins, and ancient monuments to 0.50 to 2.0 inch per second PPV for modern industrial/commercial buildings.

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<sup>92</sup> Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018, [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123\\_0.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf), accessed January 4, 2021.

**Table 12**      **Vibration Levels from Construction Equipment**

Equipment	Approximate PPV (inch per second)				
	5 feet (423 Washington Street, 447 Battery Street)	10 feet	25 feet (FTA reference Level)	60 feet (555 Battery Street, 545 Sansome Street)	200 feet (617-619 Sansome Street)
Vibratory Compactor	1.23	0.58	0.21	0.08	0.02
Caisson Drill	0.523	0.243	0.089	0.033	0.009
Loaded Trucks	0.44	0.208	0.076	0.030	0.008

SOURCES: FTA, 2018; ESA, 2021.

NOTES: Dark-gray-shaded and light-gray-shaded vibration levels exceed the criteria for historic and modern structures. Light-gray-shaded vibration levels exceed the criteria for historic structures only.

PPV = peak particle velocity

**Table 13**      **Caltrans Vibration Guidelines for Potential Damage to Structures**

Structure and Condition	Maximum PPV (inches per second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

SOURCE: Caltrans, *Transportation and Construction Vibration Guidance Manual* (Table 19, p.38), September 2013.

NOTES: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV = peak particle velocity

The building at 423 Washington Street was constructed in 1983 and falls within the “modern industrial/commercial building” category with regard to the criteria presented in Table 13. The building at 447 Battery Street was constructed in 1907 and falls within the “historic and some older buildings” category with regard to the criteria presented in Table 13. As shown in Table 12, construction activities within 5 feet of the adjacent buildings would result in vibration levels that would exceed the Caltrans criterion of 0.5 PPV applicable to modern structures (423 Washington Street) and the 0.25 PPV criterion for the closest historic structure (447 Battery Street). Construction activities near the existing structures at 447 Battery Street and 423 Washington Street could therefore result in structural damage and this impact would be **significant**. Implementation of **Mitigation Measure M-NO-3, Protection of Adjacent Buildings/Structures and Vibration Monitoring During Construction**, would reduce the vibration impact on the buildings at 447 Battery Street and 423 Washington Street.



All other historic structures in the immediate vicinity (630 Sansome Street, 555 Battery Street, 545 Sansome Street, and 617–619 Sansome Street) are greater than 60 feet from the proposed construction areas. As indicated in Table 13, groundborne vibration levels would result in estimated PPV levels between 0.017 to 0.08 inch per second, well below the 0.25 PPV criterion for causing damage to historic structures. Therefore, construction activities would not result in structural damage to these buildings.

### **Mitigation Measure M-NO-3: Protection of Adjacent Buildings/Structures and Vibration Monitoring during Construction**

Prior to issuance of any demolition or building permit, the project sponsor shall submit a project-specific Pre-construction Survey and Vibration Management and Monitoring Plan to the Environmental Review Officer (ERO) or the ERO's designee for approval. The plan shall identify all feasible means to avoid damage to potentially affected buildings, which are 423 Washington Street and 447 Battery Street. Should demolition on the building at 447 Battery Street occur, this measure is no longer applicable to that structure; however, to the extent a new structure exists or is under construction at 447 Battery Street, the Pre-construction Survey and Vibration Management and Monitoring Plan shall meet the requirements of this mitigation measure for non-historic buildings to avoid damage to such new structure. The project sponsor shall ensure that the following requirements of the Pre-Construction Survey and Vibration Management and Monitoring Plan are included in contract specifications, as necessary.

- **Pre-construction Survey.** Prior to the start of any ground-disturbing activity, the project sponsor shall engage a consultant to undertake a pre-construction survey of the potentially affected historic building at 447 Battery Street and the non-historic building 423 Washington Street. The project sponsor shall engage a structural engineer or other professional with similar qualifications to undertake a pre-construction survey of both buildings, provided that if the historic building at 447 Battery Street has not been demolished, then the project sponsor shall engage a historic architect or qualified historic preservation professional to undertake (in coordination with the structural engineer) the pre-construction survey of 447 Battery Street. If the historic building at 447 Battery Street has not been demolished, the pre-construction survey shall include descriptions and photograph of 447 Battery Street, including all facades, roofs, and details of the character-defining features that could be damaged during construction, and shall document existing damage such as cracks and loose or damaged features (as allowed by the property owner). The report shall also include pre-construction drawings that record the pre-construction condition of the buildings and identify cracks and other features to be monitored during construction. If the historic building at 447 Battery Street has not been demolished, the historic architect or qualified historic preservation professional shall be the lead author of the pre-construction survey for 447 Battery Street. These reports shall be submitted to the ERO and planning department preservation staff for review and approval prior to the start of vibration-generating construction activity.
- **Vibration Management and Monitoring Plan.** The project sponsor shall undertake a monitoring plan to avoid or reduce project-related construction vibration damage to the adjacent buildings and/or structures at 447 Battery Street and 423 Washington Street to ensure that any such damage is documented and repaired. Prior to issuance of any demolition or building permit, the project sponsor shall submit the Vibration Management and Monitoring Plan that lays out the monitoring program to the ERO for approval. If the historic building at 447 Battery Street has not

been demolished, the Vibration Management and Monitoring Plan shall also be submitted to planning department preservation staff for review and approval.

The Vibration Management and Monitoring Plan shall include, at a minimum, the following components, as applicable:

- *Maximum Vibration Level.* Based on the anticipated construction and condition of the affected buildings and/or structures, a qualified acoustical/vibration consultant in coordination with a structural engineer (or professional with similar qualifications) and, in the case the historic building at 447 Battery Street has not been demolished, a historic architect or qualified historic preservation professional, shall establish a maximum vibration level that shall not be exceeded based on existing conditions, soil conditions, anticipated construction practices, and in the event the historic building at 447 Battery Street has not been demolished, character-defining features of that building (common standards are a peak particle velocity [PPV] of 0.25 inch per second for historic and some old buildings, a peak particle velocity [PPV] of 0.3 inch per second for older residential structures, and a peak particle velocity [PPV] of 0.5 inch per second for new residential structures and modern industrial/commercial buildings).
- *Vibration-Generating Equipment.* The plan shall identify all vibration-generating equipment to be used during construction (including, but not limited to site preparation, clearing, demolition, excavation, shoring, foundation installation, and building construction).
- *Alternative Construction Equipment and Techniques.* Should construction vibration levels be observed in excess of the established standard, the contractor(s) shall halt construction and put alternative construction techniques into practice, to the extent feasible (e.g., non-vibratory compaction equipment). Following incorporation of the alternative construction techniques, vibration monitoring shall recommence to ensure that vibration levels at each affected building and/or structure on adjacent properties are not exceeded.
- *Vibration Monitoring.* The plan shall identify the method and equipment for vibration monitoring. To ensure that construction vibration levels do not exceed the established standard, the acoustical/vibration consultant shall monitor vibration levels at each affected building and/or structure on adjacent properties (as allowed by property owners) and prohibit vibratory construction activities that generate vibration levels in excess of the standard.
  - o Should construction vibration levels be observed in excess of the standards established in the plan, the contractor(s) shall halt construction and put alternative construction techniques identified in the plan into practice, to the extent feasible.
  - o The historic architect or qualified historic preservation professional (for effects on the historic building at 447 Battery Street if it has not been demolished) and/or structural engineer shall inspect each affected building and/or structure (as allowed by property owners) in the event the construction activities exceed the established standards.
  - o If vibration has damaged nearby buildings and/or structures that are not historic, the structural engineer shall immediately notify the ERO and prepare a damage report documenting the features of the building and/or structure that has been damaged.

- If vibration has damaged the historic building at 447 Battery Street, the historic preservation consultant shall immediately notify the ERO or the ERO's designee and preservation staff and prepare a damage report documenting the features of the building and/or structure that has been damaged.
  - If no damage has occurred to the buildings at 447 Battery Street and Washington Street, then the historic preservation professional (if the historic building at 447 Battery Street has not been demolished) and/or structural engineer shall submit a monthly report to the ERO (and preservation staff, if needed) for review. This report shall identify and summarize the vibration level exceedances and describe the actions taken to reduce vibration.
  - Following incorporation of the alternative construction techniques and/or planning department review of the damage report, vibration monitoring shall recommence to ensure that vibration levels at 447 Battery Street and 423 Washington Street are not exceeded.
- *Periodic Inspections.* The plan shall identify the intervals and parties responsible for periodic inspections. The historic architect or qualified historic preservation professional (if the historic building at 447 Battery Street has not been demolished) and/or structural engineer shall conduct regular periodic inspections of each building and/or structure (as allowed by property owners) during vibration-generating construction activity on the project site. The plan will specify how often inspections and reporting shall occur.
  - *Repair Damage.* The plan shall also identify provisions to be followed should damage to any building and/or structure occur due to construction-related vibration. The building(s) and/or structure(s) shall be remediated to their pre-construction condition (as allowed by property owners) at the conclusion of vibration-generating activity on the site. Should damage occur at the historic building at 447 Battery Street, the building and/or structure shall be restored to its pre-construction condition in consultation with the historic architect or qualified historic preservation professions and planning department preservation staff.
  - *Vibration Monitoring Results Report.* After construction is complete the project sponsor shall submit a final report from the historic architect or qualified historic preservation professional (if the historic building at 447 Battery Street has not been demolished) and/or structural engineer to the planning department. The report shall include, at a minimum, collected monitoring records, building and/or structure condition summaries, descriptions of all instances of vibration level exceedance, identification of damage incurred due to vibration, and corrective actions taken to restore damaged buildings and structures. The planning department shall review and approve the Vibration Monitoring Results Report.

Implementation of Mitigation Measure M-NO-3 would reduce or eliminate the likelihood of structural damage to adjacent historic buildings, and therefore would reduce the vibration impact on the buildings at 423 Washington Street and 447 Battery Street to a less-than-significant level. For these reasons, the proposed project or residential variant would not result in exposure of persons or structures to or generation of excessive groundborne vibration or groundborne noise levels. This impact would be ***less than significant with mitigation.***

**Impact C-NO-1: The proposed project or residential variant, in combination with cumulative projects, would not result in significant cumulative noise and vibration impacts. (*Less than Significant with Mitigation*)**

### **CONSTRUCTION NOISE**

Construction activities in the vicinity of the project site, such as excavation, grading, or construction of other buildings in the area, would occur on a temporary and intermittent basis. Project construction-related noise would not substantially increase ambient noise levels at locations greater than a few hundred feet from the project site. Other than renovation projects, there are two development projects that are close enough (within 500 feet) to combine with the noise created during construction of the proposed project or residential variant to result in a cumulative construction noise impact.

The 447 Battery Street project, adjacent to the east of the project site, proposes demolition of the existing three-story building and construction of a new 18-story hotel with ground floor retail project. Construction noise from this project are predicted to result in an increase in ambient noise levels from 73 to 74 dBA at the nearest sensitive receptor, the Gateway Apartments (noise measurement location LT-1 in Table 8, p. 93).<sup>93</sup> This project is approximately 150 feet from the Gateway Apartments. The 545 Sansome Street project proposes to demolish a single-story retail building at 501–505 Washington Street and a concrete capped, below-grade story at 517 Washington Street and construct an office addition to the existing nine-story building. This project is even further from the Gateway Apartments than the project site.

As shown in Table 8, maximum daytime construction noise from the proposed project or residential variant at the nearest daytime receptor would be 65 dBA. If construction activities from the projects at 447 Battery Street and 545 Sansome Street, and the proposed project or residential variant occur simultaneously, the combined construction would result in a noise level of approximately 75 dBA, assuming the 74 dBA contribution from the project at 447 Battery Street, a 65 dBA contribution from the proposed project, and a 65 dBA contribution from the project at 545 Sansome Street. Therefore, the resultant noise level would not result in an increase of greater than 10 dBA over existing levels at the nearest receptor, or exceed the FTA's 90 dBA criteria for daytime construction noise at a residential receptor.

Based on the above, cumulative construction-related noise impacts from the proposed project or residential variant would be ***less than significant***.

### **CONSTRUCTION VIBRATION**

Of the 10 cumulative projects identified within 0.25 mile of the project site, only the 447 Battery Street project would be located within 25 feet of the project site.<sup>94</sup> Therefore, the cumulative context for construction vibration impacts is the immediate area surrounding the project site. Under the cumulative scenario, the 447 Battery Street project would demolish the existing historic building and construct a new hotel building with ground-floor retail. Therefore, the 447 Battery Street project building would be considered a “modern industrial/commercial building” with regard to the criteria presented in Table 12. If construction of the proposed project or residential variant overlaps with construction activities for the 447 Battery Street project, cumulative vibration levels could exceed the building damage threshold (0.5 PPV) for the closest non-historic building at 423 Washington Street. If pile drilling or compaction from both the

<sup>93</sup> Draft Environmental Impact Report 447 Battery Street Project, Planning Department Case Number 2014.1035E, Appendix B: Initial Study.

<sup>94</sup> This distance was selected because, as shown in Table 8, p. 85, the operation of construction equipment and activities generates vibration levels below the applicable threshold for historic structures.

proposed project or residential variant and the 447 Battery Street project were to occur adjacent to 423 Washington Street, vibration levels could exceed 1.0 PPV. Consequently, the proposed project or residential variant, in combination with the cumulative project at 447 Battery Street, has the potential to result in a **significant** cumulative impact. Additionally, should the new structure at 447 Battery Street already be constructed in the cumulative scenario, construction-related vibration for the proposed project or residential variant could result in vibration levels that exceed the building damage threshold (0.5 PPV) for a “modern industrial/commercial building.” Implementation of Mitigation Measure M-NO-3 would reduce cumulative vibration impacts.

Implementation of Mitigation Measure M-NO-3 would reduce or eliminate the likelihood of structural damage to adjacent buildings, and therefore would reduce cumulative vibration impacts. The proposed project or residential variant would not combine with cumulative projects to create a significant vibration impact. This impact would be **less than significant with mitigation**.

### **TRAFFIC NOISE**

Localized traffic noise would increase in conjunction with foreseeable residential and commercial growth in the project vicinity. Therefore, the cumulative context for operational traffic noise includes the roadways in the vicinity of the project site and cumulative development.

Cumulative traffic volumes on roadways used to access the project area (i.e., Battery, Washington, Clay, Sansome streets) would increase by no more than 27 percent compared to existing conditions.<sup>95</sup> As discussed above under Impact NO-2, conservatively adding all of the proposed project’s peak hour traffic to Sansome Street would increase traffic volumes by 27 percent, while adding all project traffic to Washington Street would increase traffic volumes by 20 percent. Even with this conservative allocation of traffic to these roadways, these increases would be well below the traffic volumes needed to produce a noticeable change in traffic noise (i.e., a doubling of traffic volumes, or a 100 percent increase). Therefore, cumulative traffic noise impacts would be **less than significant**, and no mitigation measures are necessary.

### **FIXED MECHANICAL EQUIPMENT NOISE**

Proposed project- or residential variant-related stationary-source noise, such as from HVAC equipment, exhaust fans, or emergency generators, would not substantially increase ambient noise levels at locations that are more than a few hundred feet from the project site. The projects at 447 Battery Street and 545 Sansome Street are the only cumulative development projects close enough (within 500 feet) to consider the potential to result in a cumulative operational noise impact.

The 545 Sansome Street project proposes to demolish a single-story retail building at 501–505 Washington Street and construct an office addition to the existing nine-story building. The building at 545 Sansome already contains operational rooftop HVAC equipment and mechanical penthouses; therefore, this project is not expected to further contribute cumulatively to mechanical equipment noise that has not already been included in the monitored values for the project area. The 447 Battery Street project is adjacent to the project site and would have rooftop stationary-source equipment. Because both the proposed project or residential variant and the project at 447 Battery Street would have equipment that (a) would be shielded or enclosed; and (b) be located at substantial heights (100 feet or more for both projects) above the nearest

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<sup>95</sup> San Francisco Planning Department, *Draft Environmental Impact Report 447 Battery Street Project, Planning Department Case Number 2014.1035E*, Appendix B: Initial Study.

receptors to result in marked attenuation of noise levels, operational noise from cumulative projects' stationary sources is anticipated to be substantially attenuated to comply with section 2909 of the noise ordinance.

Therefore, the proposed project or residential variant would result in **less-than-significant** cumulative impacts related to operational noise, and no mitigation measures are necessary.

## 7. Air Quality

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>7. AIR QUALITY.</b> Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 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 air basin within federal and state air quality standards, as established by the federal Clean Air Act (federal clean air act) and the California Clean Air Act (clean air act), 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 federal clean air act and the clean air act 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* (clean air plan), was adopted by the air district on April 19, 2017. The clean air plan updates the most recent Bay Area ozone plan, the 2010 clean air plan, in accordance with the requirements of the state Clean Air Act to implement all feasible measures to reduce ozone; provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases

(GHGs) in a single, integrated plan; and establish emission control measures to be adopted or implemented. The 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 to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

The 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 or residential variant would conflict with or obstruct implementation of air quality plans (checklist question E.7.a).

## CRITERIA AIR POLLUTANTS

In accordance with the state and federal clean air acts, air pollutant standards are identified for the following six criteria air pollutants: ozone, carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), 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. The air basin is designated as either in attainment or unclassified for most criteria pollutants with the exception of ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>,<sup>96</sup> for which these pollutants are designated as non-attainment for either the state or federal standards.<sup>97</sup> 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 (NOx).

By its very nature, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in non-attainment of air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality impacts. If a project's contribution to cumulative air quality impacts is "considerable," then the project's impact on air quality would be considered significant.

Land use projects typically result in ozone precursor and particulate matter emissions because of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities. For this reason, the air district has established significance thresholds for non-attainment criteria air pollutants, as shown in **Table 14**.

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<sup>96</sup> PM<sub>10</sub> is often termed "coarse" particulate matter and is made of particulates that are 10 microns in diameter or smaller. PM<sub>2.5</sub>, termed "fine" particulate matter, is composed of particles that are 2.5 microns or less in diameter.

<sup>97</sup> "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.

**Table 14** Criteria Air Pollutants Significance Thresholds

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (Pounds/day)	Average Daily Emissions (Pounds/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NOx	54	54	10
PM10	82 (exhaust)	82	15
PM2.5	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	

The significance thresholds for ROG and NOx are based on the stationary source limits in air district regulation 2, rule 2, which requires that any new source that emits criteria air pollutants above the ROG and NOx emissions limit in Table 14, must offset those emissions. The significance thresholds for particulate matter is based on the emissions limit in the federal New Source Review for stationary sources in nonattainment areas. The air district’s California Environmental Quality Act Air Quality Guidelines<sup>98</sup> and supporting materials<sup>99</sup> provide additional evidence to support these thresholds. Projects that would result in criteria air pollutant emissions below these significance thresholds would not result in a cumulatively considerable net increase in non-attainment criteria air pollutants within the air basin.<sup>100</sup> Due to the temporary nature of construction activities, only the average daily thresholds are applicable to construction phase emissions.

**Fugitive Dust.** Additionally, fugitive dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices at construction sites significantly control fugitive dust, and individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.<sup>101</sup> The air district has identified a number of best management practices to control fugitive dust emissions from construction activities.<sup>102</sup> The city’s Construction Dust Control Ordinance (Ordinance No.176-08, effective July 30, 2008) requires a number of measures to control fugitive dust and the best management practices employed in compliance with the city’s construction dust control ordinance are an effective strategy for controlling construction-related fugitive dust.

## LOCAL HEALTH RISKS AND HAZARDS

In addition to criteria air pollutants, individual projects may emit *toxic air contaminants*. Toxic air contaminants collectively refer to a diverse group of air pollutants that can cause 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 toxic air contaminants include birth defects, neurological damage, cancer,

<sup>98</sup> Bay Area Air Quality Management District (air district), *California Environmental Quality Act Air Quality Guidelines*, May 2017. Available at: [https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed February 5, 2021.

<sup>99</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009. Available at: <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/revised-draft-ceqa-thresholds-justification-report-oct-2009.pdf?la=en>. Accessed February 5, 2021.

<sup>100</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

<sup>101</sup> Western Regional Air Partnership. 2006. *WRAP Fugitive Dust Handbook*. September 7, 2006. This document is available online at [http://www.wrapair.org/forums/dej/fdh/content/FDHandbook\\_Rev\\_06.pdf](http://www.wrapair.org/forums/dej/fdh/content/FDHandbook_Rev_06.pdf), accessed February 5, 2020.

<sup>102</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.



and mortality. There are hundreds of different types of toxic air contaminants with varying degrees of toxicity; at a given level of exposure, one toxic air contaminant may pose a hazard that is many times greater than another.

Unlike criteria air pollutants, toxic air contaminants 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.<sup>103</sup> Exposures to fine particulate matter (PM<sub>2.5</sub>) are strongly associated with mortality, respiratory diseases, and decreased lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.<sup>104</sup> In addition to PM<sub>2.5</sub>, diesel particulate matter (DPM) is also of concern. The California Air Resources Board (air board) identified diesel particulate matter as a toxic air contaminant in 1998, primarily based on evidence demonstrating cancer effects in humans.<sup>105</sup> The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other toxic air contaminants routinely measured in the region.

Air pollution does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Land uses such as residences, schools, children's day care centers, hospitals, and nursing and convalescent homes are considered to be the most sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress or, as in the case of residential receptors, their exposure time is greater than 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 a week, for 30 years.<sup>106</sup> Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

In an effort to identify areas of San Francisco most adversely affected by sources of toxic air contaminants, San Francisco partnered with the air district 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 consider estimated cancer risk, exposures to fine particulate matter, proximity to freeways, and locations with particularly vulnerable populations, as further described below.

**Excess Cancer Risk.** The air pollutant exposure zone includes areas where modeled cancer risk exceeds 100 incidents per million persons exposed. This criterion is based on United States Environmental Protection Agency (EPA) guidance for conducting air toxic analyses and making risk management decisions at the

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<sup>103</sup> In general, a health risk assessment is required if the air district 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.

<sup>104</sup> San Francisco Department of Public Health, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008.

<sup>105</sup> California Air Resources Board (ARB), Fact Sheet, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," October 1998.

<sup>106</sup> California Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spot Program Risk Assessment Guidelines*, February, 2015. Pg. 4-44, 8-6.

facility and community-scale level.<sup>107</sup> 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.<sup>108</sup>

**Fine Particulate Matter.** In April 2011, the EPA published the Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards, Particulate Matter Policy Assessment.” In this document, EPA staff strongly support a PM<sub>2.5</sub> standard within the range of 12 to 11 µg/m<sup>3</sup>.<sup>109</sup> The air pollutant exposure zone for San Francisco is based on the health-protective PM<sub>2.5</sub> standard of 11 µg/m<sup>3</sup>, as supported by the EPA’s Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards, although lowered to 10 µg/m<sup>3</sup> to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

**Proximity to Freeways.** According to the 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 near 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,<sup>110</sup> 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, 94110, 94124, and 94134) 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<sub>2.5</sub> concentrations in excess of 9 µg/m<sup>3</sup>.<sup>111</sup>

The above citywide health risk modeling is referenced in the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments, or health code article 38 (Ordinance No. 224-14, effective December 8, 2014) (article 38). The purpose of article 38 is to protect the public health and welfare by establishing an air pollutant exposure zone and imposing an enhanced ventilation requirement for all urban infill sensitive use development within that zone. The project site is located within the air pollutant exposure zone and health code article 38 does apply to the proposed project. In addition, projects within the air pollutant exposure zone require special consideration to determine whether the project’s activities would add a substantial amount of emissions to areas already adversely affected by poor air quality.

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<sup>107</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, page 67.

<sup>108</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017, page D-43.

<sup>109</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, page 67.

<sup>110</sup> California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005, <http://www.arb.ca.gov/ch/landuse.htm>, accessed February 5, 2021

<sup>111</sup> San Francisco Planning Department and San Francisco Department of Public Health, *San Francisco Citywide Health Risk Assessment: Technical Support Documentation*, September 2020.

## IMPACT ANALYSIS

### **Impact AQ-1: The proposed project or residential variant 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 air district's 2017 clean air plan.<sup>112</sup> The clean air plan is a road map that demonstrates how the San Francisco Bay Area will achieve compliance with the state ozone standards and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. In determining consistency with clean air plan, this analysis considers whether the project would: (1) support the primary goals of the plan, (2) include applicable control measures from the plan, and (3) avoid disrupting or hindering implementation of control measures identified in the plan.

The primary goals of the clean air plan are to: (1) protect air quality and health at the regional and local scale; (2) eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and (3) protect the climate by reducing greenhouse gas emissions. To meet the primary goals, the plan recommends 85 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. To the extent that the air district has regulatory authority over an emissions source generated by the project, the control measures may be requirements of the proposed project. Other measures in the plan not within the air district's regulatory authority may be advisory or are otherwise not specifically applicable to land use development projects.

The clean air plan 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. The control measures most applicable to the proposed project or residential variant are transportation control measures and energy and climate control measures. The proposed project or residential variant's impact with respect to GHGs are discussed in Section E.8, *Greenhouse Gas Emissions*, p. 126, which demonstrates that the proposed project or residential variant would comply with the applicable provisions of the city's Greenhouse Gas Reduction Strategy.

The infill nature of the proposed project or residential variant and high availability of viable transportation options ensure that hotel guests, employees, and 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 proposed project or residential variant would avoid substantial growth in automobile trips and vehicle miles traveled. The proposed project's 916 daily vehicle trips and the residential variant's 332 daily vehicle trips would result in a negligible increase in air pollutant emissions. Transportation control measures that are identified in the 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

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<sup>112</sup> Bay Area Air Quality Management District, Spare the Air Cool the Climate, *Final 2017 Clean Air Plan*, April 2017. Available at: [https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed February 5, 2021.

measures specified in the clean air plan. Therefore, the proposed project and residential variant would include applicable control measures identified in the clean air plan to meet the plan's primary goals.

Examples of a project that could cause the disruption or delay of the 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 a 200-room hotel, approximately 40,490 square feet of office space, approximately 35,230 square feet of fitness center space, and approximately 6,470 square feet of retail/restaurant space, while the residential variant would add 256 residential units. The proposed project and residential variant would add 27 and 61 parking spaces, respectively. The number of parking spaces for the proposed project or residential variant are within permitted limits. The replacement fire station would reduce existing parking by 3 spaces, for a total of 18 spaces, which would be within the permissible limits with a conditional use authorization. Either of these scenarios would be added to a dense, walkable urban area near a concentration of regional and local transit service, 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 the clean air plan's control measures.

For the reasons described above, the proposed project or residential variant would not conflict with or obstruct implementation of the clean air plan and this impact would be ***less than significant***.

**Impact AQ-2: The proposed project or residential variant's construction activities would generate fugitive dust and criteria air pollutants, but would not result in a cumulatively considerable net increase of non-attainment criteria air pollutants within the air basin. (*Less than Significant*)**

Construction activities (short-term) typically result in emissions of ozone precursors and particulate matter in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and particulate matter are primarily a result of the combustion of fuel from on-road and off-road vehicles and other construction equipment. However, ROG's are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving. The proposed project or residential variant's construction activities involve the following phases: demolition of the existing buildings and construction of a 19-story building and a four-story replacement fire station, with three below-grade levels under both buildings. During the proposed project's or residential variant's approximately 28-month construction period, construction activities would have the potential to result in emissions of ozone precursors and particulate matter, as discussed below.

***FUGITIVE DUST***

Proposed project- or residential variant-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. Depending on exposure, adverse health effects can occur due to this particulate matter in general and due to specific contaminants, such as lead or asbestos that may be constituents of soil. The current health burden of particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure.

In response, the San Francisco Board of Supervisors approved 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.

The construction dust control 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 the department of building inspection.<sup>113</sup>

In compliance with the dust control ordinance, the project sponsor and the contractor responsible for construction activities at the project site would be required to control construction dust on the site through a combination of watering disturbed areas, covering stockpiled materials, street and sidewalk sweeping, and other measures. Compliance with the regulations and procedures set forth by the dust control ordinance would ensure that potential dust-related air quality impacts would be reduced to **less than significant**.

## **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 14, p. 112, the air district developed screening criteria.<sup>114</sup> 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 greenfield<sup>115</sup> 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 would construct a 19-story, approximately 218-foot-tall (236 feet total, including rooftop mechanical equipment) building with 200 hotel rooms, approximately 40,490 square feet of office space, and approximately 35,230 square feet of fitness center space. The building would also include approximately 6,470 square feet of retail/restaurant space at the first and second level. The three below-grade levels would provide parking space and utility and back-of-house rooms for the fire station, hotel, and retail uses. The proposed project would demolish the existing Fire Station 13 and construct a four story, 20,240-square-foot replacement fire station on the eastern portion of the project site. The residential variant, under which the massing/height of the building and replacement fire station use would remain the same as the proposed project, would construct 256 residential units instead of commercial uses). For both the proposed project and residential variant, a backup generator with an assumed 400-brake horsepower power output would be installed for the 218-foot-tall building. The existing 200 horsepower generator at Fire Station 13 would be replaced by a 464-brake horsepower generator.

The size of proposed construction activities for the proposed project would be below the criteria air pollutant screening sizes for a 200-guest-room hotel and approximately 82,190 square feet of office, retail, and fitness center space identified in the air district's CEQA 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.

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<sup>113</sup> The director of the department of building inspection may waive this requirement for activities on sites less than one half-acre that are unlikely to result in any visible wind-blown dust.

<sup>114</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

<sup>115</sup> A greenfield site refers to agricultural or forest land or an undeveloped site earmarked for commercial, residential, or industrial projects.

However, the residential variant exceeds the criteria air pollutant screening criteria; therefore, a quantitative analysis was conducted. Although the proposed project does not exceed the screening criteria, the quantitative analysis of construction emissions presented below also represents the proposed project's construction. Construction-related criteria air pollutants generated by the proposed project and residential variant were quantified using the California Emissions Estimator Model (CalEEMod).<sup>116</sup> The model was developed, including default data (e.g., emission factors, meteorology), in collaboration with California regional air districts' staff. Default assumptions were used where project-specific information was unknown. Construction of the proposed project or residential variant would occur over approximately 29 months, five days per week. Emissions were converted from tons per year to pounds per day using the estimated construction duration of 30 working days in 2021, 260 working days in 2022 and 2023, and 58 working days in 2024. Additional assumptions, methodology for calculating criteria air pollutants, and detailed results by construction phase are included as Appendix D to this initial study. Construction-related emissions are presented in **Table 15**. As shown in Table 15, proposed project or residential variant construction emissions would not exceed any of the significance thresholds for criteria air pollutants in any given year in which construction would be taking place, and would result in **less-than-significant** impact with respect to criteria air pollutant emissions during construction.

**Table 15** Average Daily Construction Emissions by Year for the Proposed Project and Residential Variant

Year	Average Daily Emissions (pounds/day)			
	Unmitigated			
	ROG	NOx	PM10	PM2.5
2021	1.55	18.41	0.90	0.69
2022	1.86	19.15	0.93	0.74
2023	11.13/15.79 <sup>a</sup>	11.15	0.57	0.43
2024	0.73	7.42	0.39	0.26
<b>Average Daily Significance Threshold (pounds/day)</b>	<b>54.0</b>	<b>54.0</b>	<b>82.0</b>	<b>54.0</b>

SOURCE: ESA, 2021; 2017 Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, p. 2-1.

ABBREVIATIONS:

- ROG = reactive organic gases
- NOx = oxides of nitrogen
- PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter
- PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 microns in diameter

NOTES:

- <sup>a</sup> ROG emissions from architectural coating are presented in this one table cell for the proposed project and residential variant, respectively, separated by a “/”. These are the only emissions that differ between the proposed project and residential variant, as the residential variant would require more surface area coating.

<sup>116</sup> Environmental Science Associates, *530 Sansome Street Project Air Quality Technical Memorandum*, March 2021.

**Impact AQ-3: During operations, the proposed project or residential variant would result in emissions of criteria air pollutants, but not at levels that would result in a cumulatively considerable net increase in non-attainment criteria air pollutants. (*Less than Significant*)**

As discussed above in Impact AQ-2, the proposed project would be below the criteria air pollutant screening sizes for hotel, office, and retail identified in the air district's *CEQA Air Quality Guidelines*. Thus, quantification of project-generated operational criteria air pollutant emissions is not required, and the proposed project would not exceed any criteria pollutant significance threshold, and would result in ***less than significant*** impact with respect to criteria air pollutants. However, the residential variant exceeds the criteria air pollutant screening criteria; therefore, a quantitative analysis was conducted for both the proposed project (for disclosure purposes) and the residential variant.

The proposed project or residential variant would generate criteria pollutant emissions associated with vehicle traffic (mobile sources), on-site area sources (i.e., natural gas combustion for space and water heating, and combustion of other fuels by building and grounds maintenance equipment), energy usage, and testing of backup diesel generators. Operational-related criteria air pollutants generated by the proposed project or residential variant were quantified using CalEEMod and provided in Appendix D of this initial study. Default assumptions were used where project-specific information was unknown. Refer to Appendix D for detailed assumptions, methodology and results.

The average daily and maximum annual emissions associated with operation of the proposed project or residential variant are shown in **Table 16**. Table 16 also includes the thresholds of significance for criteria for air pollutants.

As shown in Table 16, the proposed project or residential variant would not exceed any of the significance thresholds for criteria air pollutants and would result in ***less than significant*** impact with respect to criteria air pollutants.

**Table 16 Summary of Unmitigated Operational Criteria Pollutant Emissions for the Proposed Project and Residential Variant**

	Average Daily Emissions (pounds/day)				Maximum Annual Emissions (tons/year)			
	ROG	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>	ROG	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>PROPOSED PROJECT</b>								
Area Source Emissions	6.05	<0.01	<0.01	<0.01	1.10	<0.01	<0.01	<0.01
Energy Emissions	0.24	2.18	0.17	0.17	0.04	0.40	0.03	0.03
Mobile Source Emissions	3.29	33.91	3.28	0.89	0.60	6.19	0.60	0.16
Stationary Source Emissions	0.19	0.54	0.03	0.03	0.04	0.10	0.01	0.01
<b>Total Emissions</b>	<b>9.77</b>	<b>36.64</b>	<b>3.48</b>	<b>1.09</b>	<b>1.78</b>	<b>6.69</b>	<b>0.63</b>	<b>0.20</b>
<b>Significance Threshold</b>	<b>54.0</b>	<b>54.0</b>	<b>82.0</b>	<b>54.0</b>	<b>10.0</b>	<b>10.0</b>	<b>15.0</b>	<b>10.0</b>
<b>RESIDENTIAL VARIANT</b>								
Area Source Emissions	7.39	0.16	0.22	0.22	1.35	0.03	0.04	0.04
Energy Emissions	0.07	0.56	0.05	0.05	0.01	0.10	0.01	0.01
Mobile Source Emissions	1.19	11.71	1.31	0.38	0.22	2.14	0.24	0.07
Stationary Source Emissions	0.19	0.54	0.03	0.03	0.04	0.10	0.01	0.01
<b>Total Emissions</b>	<b>8.84</b>	<b>12.97</b>	<b>1.60</b>	<b>0.68</b>	<b>1.61</b>	<b>2.37</b>	<b>0.29</b>	<b>0.12</b>
<b>Significance Threshold</b>	<b>54</b>	<b>54</b>	<b>82</b>	<b>54</b>	<b>10.0</b>	<b>10.0</b>	<b>15.0</b>	<b>10.0</b>

SOURCE: BAAQMD, 2017; ESA 2021

ABBREVIATIONS:

ROG = reactive organic gases

NOx = oxides of nitrogen

PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter

PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 microns in diameter

**Impact AQ-4: The proposed project or residential variant’s construction and operational activities would generate toxic air contaminants, including diesel particulate matter, that would expose sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)**

As discussed above, the project site is located within an air pollutant exposure zone; therefore, the existing health risks from air pollution for sensitive receptors in the vicinity of the project site are substantial. The proposed project or residential variant would generate toxic air contaminants during construction from the use of diesel-powered construction equipment and during operations resulting from increased vehicle trips and the use of a new diesel-powered generator for the hotel or residential tower and a larger replacement diesel-powered generator for the replacement fire station. The construction and operational health risks from the proposed project or residential variant emissions are further analyzed below.



## CONSTRUCTION EMISSIONS

According to the California air board, off-road equipment, which includes construction equipment, was the third largest source of mobile particulate matter emissions in California in 2012, the latest year for which inventory data is available.<sup>117</sup> However, a number of federal and state regulations require cleaner off-road equipment. Specifically, both the EPA and the California air board 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. Although the full benefits of these regulations will not be realized for several years, EPA estimates that by implementing the federal Tier 4 standards, NO<sub>x</sub> and particulate matter emissions will be reduced by more than 90 percent.<sup>118</sup>

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 air district's CEQA 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.”<sup>119</sup>*

Therefore, project-level analyses of construction activities have a tendency to overestimate assessments of long-term health risks. However, within the air pollutant exposure zone, 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.

Sensitive land uses near the project site include residences located at 550 Battery Street (approximately 300 feet from the project site) and Hotaling Place, on the north side of Washington Street just east of Montgomery Street (approximately 200 feet from the project site). In addition, a senior housing facility is located at 731 Sansome Street (approximately 630 feet from the project site), and another is located at 2 Embarcadero Center on the eighth floor, (approximately 960 feet from the project site).

Emission modeling conducted for the proposed project and residential variant assumes the off-road construction fleet predicted by the air resources board for the construction years of 2021 through 2024, which is a composite of equipment with Tier 0 through Tier 4 Final engines.

The proposed project or residential variant would require construction activities over an approximate 28-month construction period. The proposed project or residential variant's construction activities would result in short-term emissions of diesel particulate matter and other toxic air contaminants. The project site is located in an area that already experiences poor air quality and project construction activities would

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<sup>117</sup> California Air Resources Board, 2017, 2012 Base Year Emissions, Off-Road Sources, Available: <https://ww3.arb.ca.gov/ei/emissiondata.htm>, accessed February 3, 2021.

<sup>118</sup> United States Environmental Protection Agency, Clean Air Nonroad Diesel Rule: Fact Sheet, May 2004.

<sup>119</sup> Bay Area Air Quality Management District, CEQA Air Quality Guidelines, May 2012, page 8-6.

generate additional air pollution, affecting nearby sensitive receptors and resulting in a significant impact. Implementation of **Mitigation Measure M-AQ-4a, Off-Road Construction Equipment Emissions Minimization**, would reduce this impact to a less than significant with mitigation.

#### **Mitigation Measure M-AQ-4a: Off-Road Construction Equipment Emissions Minimization**

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 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed U.S. Environmental Protection Agency (EPA) Tier 4 Interim or Tier 4 Final off-road emission standards.
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 project sponsor 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 project sponsor 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 project sponsor 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 the project sponsor demonstrates that use of the alternative equipment would not result in a cancer risk from project construction and operation that exceeds 7 per one million exposed and annual average PM<sub>2.5</sub> concentrations that exceed 0.2 µg/m<sup>3</sup>.

**C. Construction Emissions Minimization Plan.** Before starting on-site construction activities, the project sponsor shall submit a Construction Emissions Minimization Plan (plan) to the ERO for review and approval. The Plan shall state, in reasonable detail, how the project sponsor 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. As reasonably available, 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 use and hours of operation. For any VDECS installed, the description may include: technology type, serial number, make, model, manufacturer, air board verification number level, and installation date and hour meter reading on installation date.

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 project sponsor agrees to comply fully with the Plan.
3. The project sponsor shall make the plan available to the public for review onsite during working hours. The project sponsor 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 project sponsor 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 project sponsor 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.

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 4 compliant engines, can reduce construction emissions of diesel particulate matter by 93 to 96 percent compared to equipment with engines meeting Tier 1 or Tier 2 emission standards.<sup>120</sup> Such a reduction provides reasonable certainty to conclude that there is no potential for a significant impact from construction period toxic air contaminant emissions. Therefore, compliance with Mitigation Measure M-AQ-4a would reduce construction period toxic air contaminant emissions on nearby sensitives receptors to less than significant with mitigation.

## **OPERATIONAL EMISSIONS**

The proposed project or residential variant would generate new vehicle trips and include a diesel emergency generator for the new building and for the replacement fire station, all of which emit toxic air contaminants. 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. These determinations were made through extensive modeling, source tests, and evaluation of their toxic air contaminant emissions.<sup>121</sup> The proposed project’s 916 daily vehicle trips and the residential variant’s 332 daily vehicle trips would each be well below this level and would be distributed among the local roadway network; therefore, an assessment of project-generated toxic air contaminants resulting from vehicle trips is not

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<sup>120</sup> PM emissions benefits are estimated by comparing off-road PM emission standards for Tier 1 and Tier 2 with Tier 4 final emissions standards. Tier 1 PM emissions standards were established for equipment with 25 to <50 horsepower and equipment with horsepower <175. Tier 1 emissions standards for these engines were compared against Tier 4 final emissions standards, resulting in a 96 percent reduction in PM. The EPA established PM standards for engines with horsepower between 50 and <175 as part of the Tier 2 emission standards. For these engines Tier 2 emissions standards were compared against Tier 4 final emissions standards, resulting in between 93 and 95 percent reduction in PM.

<sup>121</sup> Bay Area Air Quality Management District, Recommended Methods for Screening and Modeling Local Risks and Hazards, p. 12. May 2011, <https://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx>, Accessed February 2, 2021.

required and the proposed project and residential variant would not generate a substantial amount of toxic air contaminant emissions that could affect nearby sensitive receptors.

The proposed project and residential variant would also include a 400-brake horsepower diesel emergency generator for the 218-foot-tall building. In addition, a new, 464-brake horsepower generator would be installed at the replacement fire station to replace the existing 200 horsepower generator. Emergency generators are regulated by the air district through its New Source Review (Regulation 2, Rules 2 and 5) permitting process. The project sponsor would be required to obtain applicable permits to operate the emergency generators from the air district. Although emergency generators are intended only to be used in periods of power outages, monthly testing of the generators of the proposed project or residential variant would be required. The fire department tests their generators once a week for approximately 30 minutes.<sup>122</sup> The air district limits 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 10 per one million population and requires any source that would result in an excess cancer risk greater than one per one million population to install best available control technology for toxics.

However, because the project site is located in an area that already experiences poor air quality, the proposed emergency back-up generators have the potential to expose sensitive receptors to substantial concentrations of diesel emissions, a known toxic air contaminant, resulting in a significant air quality impact. Implementation of **Mitigation Measure M-AQ-4b, Diesel Backup Generator Specifications**, would reduce the magnitude of this impact to less than significant.

#### **Mitigation Measure M-AQ-4b: Diesel Backup Generator Specifications**

The project sponsor shall ensure that the proposed diesel backup generators meet or exceed California Air Resources Board Tier 4 off-road emission standards. Additionally, once operational, the diesel backup generators shall be maintained in good working order for the life of the equipment and any future replacement of the diesel backup generators shall be required to be consistent with these emissions specifications. The operator of the facility at which the generators are located shall maintain records of the testing schedule for the diesel backup generators for the life of those diesel backup generators and to provide this information for review to the planning department within three months of requesting such information.

Mitigation Measure M-AQ-4b would result in an approximate 96 percent reduction in diesel particulate matter compared to exhaust from generators without emissions controls.<sup>123</sup> Therefore, although the proposed project and residential variant would add a new source of toxic air contaminants within an area that already experiences poor air quality, implementation of Mitigation Measure M-AQ-4 would reduce this impact to a ***less than significant with mitigation***.

In summary, the proposed project's and residential variant's toxic air contaminant emissions would be less than significant with implementation of M-AQ-4a: Clean Off-Road Construction Equipment and M-AQ-4b: Clean Diesel Generators for Building Operations.

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<sup>122</sup> DeWitt, Dawn, Assistant Deputy Chief, Support Services, San Francisco Fire Department, e-mail correspondence with Susan Yogi, Senior Managing Associate, Environmental Science Associates, March 3, 2021.

<sup>123</sup> PM emission benefits are estimated for backup diesel generators by comparing PM emission standards for Tier 4 with Tier 1 in the 175 to 750 hp range. The PM emission factor change results in approximately a 96 percent reduction, from 0.4 g/bhp-hr to 0.015 g/bhp-hr.

## **SITING SENSITIVE LAND USES**

The residential variant would include development of 256 residential units and is considered a sensitive land use for purposes of air quality evaluation. For sensitive land use projects within the air pollutant exposure zone as defined by planning code article 38, such as the project site, article 38 requires that the project sponsor submit an Enhanced Ventilation Proposal for approval by the health department that achieves protection from PM<sub>2.5</sub> (fine particulate matter) equivalent to that associated with a Minimum Efficiency Reporting Value 13 (MERV-13) filtration. The department of building inspection will not issue a building permit without written notification from the director of the health department that the applicant has an approved enhanced ventilation proposal. The proposed project does not include residential units and would not be considered a sensitive land use for purposes of air quality evaluation.

In compliance with article 38, the project sponsor has submitted an initial application to the health department.<sup>124</sup> The regulations and procedures set forth by article 38 would reduce exposure of sensitive receptors to substantial pollutant concentrations; therefore, this impact would be **less than significant**.

### **Impact AQ-5: The proposed project or residential variant 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. The proposed project or residential variant uses are not typical odor sources of concern and would not create a significant source of new odors. Therefore, the proposed project or residential variant would not result in other emissions, such as odors, that could adversely affect a substantial number of people and this impact would be **less than significant**.

### **Impact C-AQ-1: The proposed project or residential variant, in combination with cumulative projects would contribute to cumulative air quality impacts. (Less than Significant with Mitigation)**

As discussed above, regional air pollution is by its very nature largely a cumulative impact. Emissions from cumulative 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 non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts.<sup>125</sup> The project-level thresholds for criteria air pollutants are based on levels 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. Therefore, cumulative criteria air pollutant analysis is presented in Impacts AQ-2 and AQ-3. Impacts AQ-2 and AQ-3 concluded that cumulative criteria air pollutant impacts would be less than significant. The remainder of this cumulative air quality analysis address cumulative health risks and odors to sensitive receptors.

As discussed above, the project site is in the air pollutant exposure zone and nearby sensitive receptors already experience poor air quality. This means significant air quality health risk impacts exist even without

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<sup>124</sup> J. Abrams Law (on behalf of EQX Jackson SQ Holdco LLC, San Francisco Fire Department, and San Francisco Bureau of Real Estate), Application for Article 38 Compliance Assessment, March 10, 2021.

<sup>125</sup> BAAQMD, *CEQA Air Quality Guidelines*, May 2017, page 2-1.

the proposed project or residential variant. The proposed project or residential variant and cumulative projects in the vicinity such as 875 Sansome Street, 17 Osgood Place, 545 Sansome Street, 447 Battery Street, 650 Sacramento Street, 400 California Street, and 220 Battery Street, would result in additional emissions of toxic air contaminants, including diesel particulate matter emissions from new vehicle trips and other stationary emissions sources similar to the proposed project or residential variant’s diesel generator emissions, as well as diesel emissions from construction activities.

As described in Impact AQ-4, above, the proposed project’s 916 average daily vehicle trips and the residential variant’s 332 average daily vehicle trips would be considered minor low-impact sources that do not pose a significant health impact even in combination with other nearby sources. However, the proposed project or residential variant would involve construction activities that require off-road equipment and/or backup generators that emit diesel particulate matter and other TACs. Therefore, the proposed project or residential variant could result in a considerable contribution to significant cumulative health risks. This would be a significant cumulative impact. As described in Impact AQ-4, the proposed project or residential variant would implement Mitigation Measures M-AQ-4a, Clean Off-road Construction Equipment, and M-AQ-4b, Diesel Backup Generator Specifications.

The proposed project would be required to implement Mitigation Measures M-AQ-4a Clean Off-road Construction Equipment and M-AQ-4b Diesel Backup Generator Specifications, which could reduce the proposed project or residential variant’s diesel particulate emissions by as much as 96 percent. Implementation of these mitigation measures would reduce the proposed project or residential variant’s contribution to cumulative health risk impacts to a **less-than-significant** level.

The proposed project or residential variant and cumulative projects would generate some odors during construction, but odors would be temporary. Upon completion of construction activities cumulative projects combined with the proposed project or residential variant would not generate substantial odors. Therefore, cumulative odor impacts would be considered **less than significant**.

## 8. Greenhouse Gas Emissions

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>8. GREENHOUSE GAS EMISSIONS.</b> Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects have contributed and will 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*,<sup>126</sup> 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 actions have resulted in a 28 percent reduction in GHG emissions in 2015 compared to 1990 levels,<sup>127</sup> exceeding the year 2020 reduction goals outlined in the air district's 2017 Clean Air Plan, Executive Order S-3-05, and Assembly Bill 32 (also known as the Global Warming Solutions Act).<sup>128</sup>

The fire department developed a departmental climate action plan (DepCAP) that was submitted in 2014, which reports on the city's fiscal year 2012–2013 data for its greenhouse gas inventory. To further reduce emissions, the fire department has committed to focusing efforts on: (1) fire station facility upgrades; (2) modernizing the vehicle fleet by acquiring efficient replacement vehicles; (3) converting to lower emission fuels; and (4) modifying employee behavior to reduce energy, fuel, and water usage.<sup>129</sup>

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 order S-3-05,<sup>130</sup> order B-30-15,<sup>131,132</sup> and Senate Bill 32,<sup>133,134</sup> the city's GHG reduction goals are consistent with order S-3-05, order B-30-15, Assembly Bill 32, Senate Bill 32 and the 2017 Clean Air Plan. Therefore, proposed

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<sup>126</sup> San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, July 2017. This document is available online at: <https://sfplanning.org/project/greenhouse-gas-reduction-strategies>, accessed December 7, 2020.

<sup>127</sup> San Francisco Department of the Environment, *San Francisco's Carbon Footprint*. Available at <https://sfenvironment.org/carbon-footprint>, accessed December 7, 2020.

<sup>128</sup> Executive Order S-3-05, Assembly Bill 32, and the air district's 2017 Clean Air Plan (continuing the trajectory set in the 2010 Clean Air Plan) set a target of reducing GHG emissions to below 1990 levels by year 2020.

<sup>129</sup> San Francisco Fire Department, Departmental Climate Action Plan, Fiscal Year 2012-2013, April 11, 2014, [https://sfenvironment.org/sites/default/files/fliers/files/sfe\\_cc\\_2014\\_sffd\\_cap\\_fy1213.pdf](https://sfenvironment.org/sites/default/files/fliers/files/sfe_cc_2014_sffd_cap_fy1213.pdf), accessed December 7, 2020.

<sup>130</sup> Office of the Governor, Executive Order S-3-05, June 1, 2005. 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 (MTCO<sub>2</sub>E)); by 2020, reduce emissions to 1990 levels (approximately 427 million MTCO<sub>2</sub>E); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million MTCO<sub>2</sub>E). 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.

<sup>131</sup> Office of the Governor, *Executive Order B-30-15*, April 29, 2015. 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 MTCO<sub>2</sub>E).

<sup>132</sup> 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.

<sup>133</sup> 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.

<sup>134</sup> 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.

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 GHG emissions, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

The following analysis of the proposed project or residential variant's impact on climate change focuses on the project's contribution to cumulatively significant GHG emissions. Because no individual project could emit GHGs at a level that could result in a significant impact on the global climate, this analysis is in a cumulative context, and this section does not include an individual project-specific impact statement.

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

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

The proposed project or residential variant would increase the intensity of use of the site by constructing either a 218-foot-tall building and a four-story replacement fire station, with hotel, fitness center, office, and restaurant/retail uses, or a residential building with 256 units. Therefore, the proposed project and residential variant would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and commercial or residential 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 or residential variant 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 Ordinance, Emergency Ride Home Program, transportation management programs, Transportation Sustainability Program, Jobs-Housing Linkage Program, bicycle parking requirements, low-emission car parking requirements, and car sharing requirements would reduce the proposed project and residential variant'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 or residential variant would be required to comply with the energy efficiency requirements of the city's green building code, Stormwater Management Ordinance and Water Efficient Irrigation Ordinance which would promote energy and water efficiency, thereby reducing the proposed project's energy-related GHG emissions.<sup>135</sup> The proposed project would also be required to comply with the Commercial Water Conservation Ordinance, and the residential variant would be required to comply with

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<sup>135</sup> Compliance with water conservation measures reduce the energy (and GHG emissions) required to convey, pump and treat water required for the project.



the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance. Additionally, the proposed project and residential variant would be required to meet the renewable energy criteria of the green building code, including renewable energy generation or green roof installation, further reducing the project's energy-related GHG emissions.

The proposed project or residential variant's waste-related emissions would be reduced through compliance with the city's Recycling and Compositing Ordinance, Construction and Demolition Debris Recovery Ordinance, Construction and Demolition Debris Recycling, 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 energy<sup>136</sup> 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 air district's wood-burning regulations, would reduce emissions of GHGs and black carbon, respectively. Regulations requiring low-emitting finishes would reduce volatile organic compounds.<sup>137</sup> Thus, the proposed project and residential variant were determined to be consistent with San Francisco's GHG reduction strategy.<sup>138</sup>

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 Executive Order S-3-05, Assembly Bill 32, and the 2017 Clean Air Plan GHG reduction goals for the year 2020. Furthermore, the city has met its 2017 GHG reduction goal of reducing GHG emissions to 25% below 1990 levels by 2017. Other existing regulations, such as those implemented through Assembly Bill 32, will continue to reduce a proposed project or residential variant's contribution to climate change. In addition, San Francisco's local GHG reduction targets are consistent with the long-term GHG reduction goals of Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32, Senate Bill 32 and the 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 Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32, Senate Bill 32 and the 2017 Clean Air Plan, would not conflict with these plans, and would therefore not exceed San Francisco's applicable GHG threshold of significance. Additionally, the proposed project or residential variant would involve the construction of a replacement fire station, which would result in an upgraded, more energy efficient fire station, consistent with the fire department's DepCAP strategy of reducing fire department emissions through fire station facility upgrades. As such, the proposed project or residential variant would result in a **less-than-significant** impact with respect to GHG emissions. No mitigation measures are necessary.

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<sup>136</sup> Embodied energy is the total energy required for the extraction, processing, manufacture and delivery of building materials to the building site.

<sup>137</sup> While not a GHG, volatile organic compounds 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 volatile organic compound emissions would reduce the anticipated local effects of global warming.

<sup>138</sup> San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for 530 Sansome Street*, December 20, 2019.

## 9. Wind

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>9. WIND.</b> Would the project:					
a) Create wind hazards in publicly accessible areas of substantial pedestrian use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The information in this section is based on a pedestrian wind study prepared for the proposed project and residential variant, which is included as Appendix E to this initial study. Average wind speeds in the city are the highest in the summer and lowest in winter. However, the strongest peak wind speeds occur in winter (wind direction is also most variable in the winter). Wind speeds are diurnal and fluctuate throughout the day, with the highest average wind speeds occurring during the mid-afternoon and the lowest in the early morning. Based on over 40 years of recordkeeping at the old San Francisco Federal Building near Civic Center, the highest mean hourly wind speeds (approximately 20 miles per hour [mph]) occur in July, while the lowest mean hourly wind speeds (in the range of 6 mph to 9 mph) occur in November.

In the city, westerly to northwesterly winds are the most frequent and strongest winds during all seasons.<sup>139</sup> Of the 16 primary wind directions, five have the greatest frequency of occurrence: the northwest, west-northwest, west, west-southwest, and southwest.<sup>140</sup> Additionally, most of measured winds over 13 mph—the speed at which pedestrians begin to feel discomfort—blow from these directions.

### APPROACH TO ANALYSIS

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 (variability in wind speed and pressure).

Planning code section 148, Reduction of Ground-Level Wind Currents in C-3 districts, requires buildings to be shaped so as not to cause ground-level wind currents to exceed, more than 10 percent of the time, the pedestrian comfort criteria of 11 mph in substantial pedestrian use areas, and 7 mph in public seating areas. Similarly, the planning code requires that buildings not cause equivalent wind speeds to reach or exceed the hazard level of 26 mph for a single full hour of the year. Because the hazard criterion is stated in terms of 1 hour per year of exceedance, it is most appropriate to report exceedances of this criterion in terms of the

<sup>139</sup> Wind directions are reported as directions from which the winds blow.

<sup>140</sup> The 16 primary wind directions, clockwise beginning with west winds, are west, west-northwest, northwest, north-northwest, north, north-northeast, northeast, east-northeast, east, east-southeast, southeast, south-southeast, south, south-southwest, southwest, and west-southwest.

number of hours per year that the excess occurs, rather than the accompanying wind speeds.<sup>141</sup> The wind ordinance comfort criteria are defined in terms of equivalent wind speed, which is an average wind speed (mean velocity), adjusted to include the level of gustiness and turbulence. Throughout this discussion, references to “wind speeds” are to equivalent wind speeds exceeded 10 percent of the time, while “wind hazard” refers to equivalent wind speeds that reach or exceed the hazard level of 26 mph for a single full hour of the year.

Section 148 focuses largely on projects meeting the wind comfort criteria, but it permits exceptions to allow a project to exceed the comfort criteria by the “least practical amount” if meeting the criteria would create “an unattractive and ungainly building form” and “unduly restrict” a site’s development potential, and it can be concluded that, because of the limited amount by which the comfort level is exceeded or the limited location or time of the exceedance, the added winds would be “insubstantial.” Conversely, with respect to wind hazards, section 148 states that new buildings and additions may not cause wind speeds that meet or exceed the hazard criterion and no exception may be granted for buildings that result in winds that meet or exceed the hazard criterion. Accordingly, for the purposes of CEQA review, the planning department has determined that the pedestrian wind hazard criterion set forth in the San Francisco Planning Code is the standard for determining whether pedestrian winds would “substantially affect public areas” and therefore would result in a significant impact. Therefore, the CEQA significance criterion for wind is whether a project would meet or exceed the wind hazard speed (36 mph, 1-minute average) for a single hour of the year. With respect to conditions in which the wind hazard criterion is exceeded under existing conditions, a significant impact would normally result if the total number of hours during which the hazard criterion is exceeded or the number of locations where exceedances would occur would increase. This is because a CEQA evaluation is based on the change from existing conditions.

**Impact WI-1: The proposed project or residential variant would not result in a net increase in wind hazards in publicly accessible areas of substantial pedestrian use. (*Less than Significant*)**

The project site is at the northern edge of Downtown San Francisco. The closest tall buildings include the Transamerica Pyramid, an 850-foot-tall, 48-story building located one-half block to the west at 600 Montgomery Street; the 20-story, approximately 245-foot-tall office building at 505 Sansome Street, southwest across Sansome Street; and the 15-story, 225-foot-tall U.S. Appraisers’ Building north across Washington Street at 630 Sansome Street. Other nearby buildings include a nine-story, approximately 105-foot-tall, office building at 545 Sansome Street, directly west across Sansome Street; and an eight-story, approximately 110-foot-tall office building at 500 Sansome Street. Half a block east of the project site is a seven-story, 85-foot-tall office building at 423 Washington Street. The project site is generally flat with a ground surface elevation of approximately 3 feet above mean sea level.

Existing wind conditions in the vicinity of the project site are generally windy. As shown in **Table 17**, 53 of 77 test points in the vicinity of the project site exceed the pedestrian comfort criterion of 11 mph in areas of

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<sup>141</sup> The wind hazard criterion of 26 mph is derived from a wind condition that would generate a 3-second gust of wind at 20 meters per second (45 mph), a commonly used guideline for wind safety. This wind speed, on an hourly basis, is 26 mph averaged for a full hour. However, because the Civic Center Federal Building wind data were collected at one-minute averages, the 26-mph one-hour average wind speed is converted to a corresponding one-minute average wind speed of 36 mph, which is then used to determine compliance with the planning code hazard criterion. (Arens, E. et al., “Developing the San Francisco Wind Ordinance and its Guidelines for Compliance,” *Building and Environment*, Vol. 24, No. 4, pp. 297–303, 1989.) That is, when stated on the same basis as the comfort criteria winds, the hazard criterion speed is a one-minute average of 36 mph. Accordingly, all hazard wind speeds in this analysis are presented based on the 36-mph wind speed averaged over one-minute, and the hazard criterion is based on 36 mph. Therefore, the wind test results are comparable between the comfort and hazard analyses.

substantial pedestrian use,<sup>142</sup> and 12 of 77 test points exceed the wind hazard criterion speed of 36 mph (averaged over one minute). Across all test points, the existing average wind speed exceeded 10 percent of the time is 14 mph, and the average wind speed exceeded at least 1 hour per year is 28 mph. The total number of hours per year that the hazard criterion is exceeded under existing conditions is 249.

**Table 17 Pedestrian-Level Wind Impacts for the Proposed Project and Residential Variant**

Scenario	Wind Comfort (Criterion = 11 MPH)			Wind Hazard (Criterion = 36 MPH)		
	Average Speed (mph)	Average (percent)	Total Exceedances (Exceedances/Number of Test Locations)	Average Speed (mph)	Total Hours	Total Exceedances (Exceedances/Number of Test Locations)
Existing	14	21	53/77	28	249	12/77
Proposed Project and Residential Variant	14	20	55/77	28	138	10/77
Cumulative	14	22	54/77	28	263	14/77

SOURCE: RWDI, 2021.

The proposed project and residential variant would essentially have the same building envelope. Both scenarios would include a 218-foot-tall building; however, the residential variant would have three additional stories through reduced floor-to-floor heights and minor modifications to the top floor mechanical penthouse plan. While wind tunnel testing was undertaken for the proposed project only, the wind study concluded that impacts from the residential variant would be substantially similar to those of the proposed project.<sup>143</sup> Therefore, the impacts described herein with respect to the proposed project would be substantially the same as or very similar to those resulting from the residential variant.

With implementation of the proposed project or residential variant, the number of test points exceeding the wind comfort criterion would increase from 53 to 55. However, implementation of the proposed project or residential variant would reduce the percent of the time wind speeds would exceed the comfort criterion from 21 to 20, and the average wind speed exceeded 10 percent of the time would be unchanged. Because the proposed project or residential variant would increase the number of test points exceeding the wind comfort criterion, the proposed project or residential variant would require an exception to planning code section 148 pursuant to planning code section 309.

With respect to the hazard criterion, 12 of the test points exceed the criterion under existing conditions. With implementation of the proposed project and residential variant, this would be reduced from 12 to 10; four existing hazard exceedances would be eliminated and there would be two new exceedances. The total hours exceeding the hazard criterion would be reduced from 249 to 138. Moreover, the average wind speed exceeded 1 hour per year would be 28 mph, the same as existing conditions. The two hazard criterion exceedances that would be eliminated by the proposed project and residential variant would occur along Washington and Sansome streets within close proximity to the project site.

<sup>142</sup> All sidewalk test points were evaluated in comparison to the 11mph pedestrian comfort criterion; only test point 53, within Transamerica Redwood Park, and test point 54, in the pedestrian portion of Merchant Street adjacent to the park, qualify as seating locations.

<sup>143</sup> RWDI, 530 Sansome Street, *Pedestrian Wind Study*, p. 10, February 1, 2021.

As stated above, the significance criterion for wind is whether a project would exceed 26 mph for a single hour of the year; however, when the wind hazard criterion is exceeded under existing conditions, the significance determination is made on the basis of whether pedestrian conditions would further deteriorate. As shown in Table 17, the proposed project and residential variant would result in 10 exceedances of the hazard criterion, but this would represent a reduction in the number of test points exceeding the hazard criterion as compared to existing conditions. Moreover, the total hours exceeding the hazard criterion would be reduced from 249 to 138, representing a substantial improvement in the total number of hazardous wind hours as compared to existing conditions. Therefore, because wind conditions would generally improve as compared to existing conditions with respect to the hazard criterion, the proposed project or residential variant would not result in a net increase in the number of wind hazards in publicly accessible areas of substantial pedestrian use when compared to existing conditions. Therefore, this impact would be **less than significant**.

**Impact C-WI-1: The proposed project or residential variant, in combination with cumulative projects, would not alter wind in a manner that substantially affects public areas. (Less than Significant)**

As shown in Table 17, with the introduction of cumulative development (i.e., the 220 Battery Street, 447 Battery Street, 545 Sansome Street, 875 Sansome Street, and 17 Osgood Place projects), wind hazard conditions would worsen, as compared to existing conditions. The number of exceedances of the hazard criterion would increase from 12 to 14, and the number of hours during which the hazard criterion would be exceeded would increase from 249 under existing conditions to 263 under cumulative conditions. The average wind speed exceeded one hour per year would remain the same as existing conditions (28 mph). However, the net increase in the number of exceedances would be two. Specifically, four new locations would exceed the hazard criterion that do not exceed the criterion under existing conditions, and two exceedances under existing conditions would be eliminated under the cumulative projects scenario. The four new exceedances would occur on the block containing the project site: one test point at the intersection of Battery and Washington streets, one test point adjacent to the project site on Washington Street, one test point on Sansome Street adjacent to the project site, and one test point across Washington Street from the project site. Two exceedances under existing conditions would be eliminated under the cumulative project scenario: one on Washington Street adjacent to the project site, and one on Washington Street adjacent to 447 Battery Street, a cumulative project. Because the cumulative scenario would result in a net increase of two hazard exceedances as compared to existing conditions, and an increase in the number of hours exceeding the hazard criterion, this would be a potentially significant cumulative impact.

However, as discussed under Impact WI-1 above, when compared to existing conditions the proposed project or residential variant alone would result in a reduction in the number of locations with wind hazard exceedances (from 12 to 10) and an overall reduction in the total number of annual hours exceeding the hazard criterion (from 249 to 138). Moreover, the pedestrian wind study prepared for the proposed project and residential variant concluded the increase in the number of total hours and locations exceeding the hazard criterion would primarily be caused by the proposed project at 545 Sansome Street, which would be developed upwind of the proposed project or residential variant.<sup>144</sup> Notably, the cumulative project at 545 Sansome Street would both incrementally increase the height of an existing structure and replace an adjacent single-story building at the southwest corner of Sansome and Washington streets with a 105-foot tall addition to the existing building, thereby substantially narrowing the space along Washington Street and channeling and accelerating westerly winds towards the project site. The wind study determined west-

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<sup>144</sup> Ibid.

northwesterly prevailing winds would downwash from the north façade of 545 Sansome Street, accelerate around its northeast corner (through the narrowed gap noted above), and accelerate further as they channel between 545 Sansome Street and the proposed project or residential variant. While the increase in wind hazard exceedances and speeds under the cumulative scenario would occur as a result of the interaction between 545 Sansome Street and the proposed project or residential variant, it is also noted that the proposed project or residential variant alone would decrease wind speeds at the two test points on the project’s Sansome Street frontage at which winds exceed the hazard criterion under existing conditions—points 10 and 12, thereby eliminating two existing wind hazard exceedances. With cumulative development—notably 545 Sansome Street—these two hazard exceedances would reappear, albeit with somewhat lesser wind speeds than under existing conditions. However, as explained above, the proposed cumulative project at 545 Sansome Street would play the largest role in these increases. Therefore, the proposed project or residential variant would not contribute considerably to this cumulative impact and the proposed project or residential variant’s contribution to a cumulative impact would be **less than significant**.

## 10. Shadow

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>10. SHADOW.</b> Would the project:					
a) Create new shadow that substantially and adversely affects the use and enjoyment of publicly accessible open spaces?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The information in this section is based on a shadow analysis report prepared for the proposed project and residential variant, which is included as Appendix F to this initial study.

**Impact SH-1: the proposed project or residential variant would not create new shadow that substantially and adversely affects the use and enjoyment of publicly accessible open spaces. (Less than Significant)**

Section 295 of the San Francisco Planning Code was adopted through voter approval of Proposition K in November 1994 to protect certain public open spaces from shadowing by new structures. Section 295 effectively limits shadow on city parks, requiring that specific findings be made before buildings greater than 40 feet in height can be approved that would shade property under the jurisdiction of or designated to be acquired by the San Francisco Recreation and Park Commission. Compliance with section 295 occurs independent of the CEQA process. While the shadow analysis report depicts shadow on Maritime Plaza, Sue Bierman Park, Transamerica Redwood Park, and streets and sidewalks in the vicinity of the project site, shadow impacts are quantified for Maritime Plaza and Sue Bierman Park and not for Transamerica Redwood Park because only the former are under the jurisdiction of the San Francisco Recreation and Park Department, and thus subject to section 295. Therefore, the analysis in this section includes quantification of shadow impacts for Maritime Plaza and Sue Bierman Park only. However, the impact determination under CEQA is based on qualitative criteria adopted by the recreation and parks commission and planning

commission. The qualitative criteria include evaluation of a proposed project and residential variant's shadow impact during the time of day and time of year when shadow would be cast, the size, duration, and location within the park of the new shadow, and the public good served by the building casting the shadow.

Implementation of the proposed project or residential variant would result in the construction of a building exceeding 40 feet in height. To identify the publicly accessible open spaces affected by proposed project or residential variant shadow, a full-year shadow fan diagram was prepared, which takes into account the presence of existing shadow from nearby buildings. The shadow fan diagram identified three publicly accessible open spaces that would receive net new shadow from the proposed project and residential variant. These are Maritime Plaza, Sue Bierman Park, and Transamerica Redwood Park. The first two open spaces are city parks under the jurisdiction of the San Francisco Recreation and Park Commission, while Transamerica Redwood Park is a POPOS, created and regulated under planning code section 138. In addition, nearby streets and sidewalks are analyzed pursuant to planning code section 147, which requires that new buildings exceeding 50 feet in height in C-3 districts avoid substantial shadow impacts on public open spaces, other than those under the jurisdiction of the Recreation and Park Commission. Because the proposed project or residential variant would shade public open spaces, as discussed below, the proposed project or residential variant would require an exception to planning code section 147 pursuant to planning code section 309.

### **MARITIME PLAZA**

Maritime Plaza is a 1.99-acre publicly accessible open space under the jurisdiction of the San Francisco Recreation and Parks Department. This plaza is above a parking structure, about 25 feet above street level, and contains two separate areas between Washington and Clay streets, one on each side of the 400-foot-tall Alcoa building at One Maritime Plaza. Public access to the Maritime Plaza is via stairwells at Washington and Clay streets and elevated walkways. The two separate areas of the plaza are connected by a breezeway through the Alcoa building. The western portion of the plaza contains a lawn, a sculpture garden, landscaping, seating areas, and a one-story office building that also contains the Punch Line, a private comedy club. The eastern portion of the plaza contains a sculpture garden; a fountain; landscaping; seating areas; and a one-story office building.

A quantitative assessment of existing and net new shadow was performed for the Maritime Plaza. These results are summarized in **Table 18**.

As shown in Table 18, the proposed project or residential variant would affect Maritime Plaza 223 days per year (between March 2 and October 10 annually). On the affected days, net new shadow would occur for an average of 2 hours, 31 minutes and would reach the park no earlier than 3:30 p.m. On affected days, proposed project or residential variant net new shadow would cover an average of 4.9 percent of the park. The total net new shading from the proposed project and residential variant would represent 0.71 and 0.69 percent of the theoretical annual available sunlight,<sup>145</sup> respectively.

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<sup>145</sup> The theoretical annual available sunlight is the number of square foot-hours that would theoretically fall on a publicly accessible open space each day from an hour after sunrise to an hour before sunset summed over the course of a year, ignoring all shadow from any source.

**Table 18 Shadow on Maritime Plaza**

	Proposed Project	Residential Variant
Annual Existing Shadow	67.88%	67.88%
Annual Net New Shadow Cast	0.71%	0.69%
Annual Total Shadow (Existing + Net New Shadow)	68.59%	68.57%
Number of Days Annually When Net New Shading Would Occur	223	223
Average Daily Project Net New Shadow Duration on Affected Dates	2 hours, 31 minutes	2 hours, 31 minutes
Date of Most Square-Foot Hours of Annual Net New Shading	August 16 & April 26	August 16 & April 26
Date and Time With Largest Instantaneous Net New Shadow Area	August 23 & April 19 at 6 p.m.	August 23 & April 19 at 6 p.m.
Area and Percentage of Net New Shadow on Date with Largest Instantaneous Shadow Area	11,524 sq. ft. (13.3%)	11,489 sq. ft. (13.3%)

SOURCE: Prevision Design, February 5, 2021.

On the affected days, net new shading would cover portions of a seating area in the northwest portion of the park, portions of a walkway, and on the date of maximum shading (August 16 and April 26), net new shadow would cover nearly the entire lawn in front (east) of the one-story office building containing the Punch Line venue from 6 p.m. until sunset. In addition, a seating area adjacent to the lawn would also be shaded from 6:15 p.m. until sunset at 7:02 p.m. The park was observed over six 30-minute observation periods on October 21 and 24, 2020, to identify park usage and to determine whether park users would be adversely or substantially affected by net new shadow.<sup>146</sup> During the observed times, the number of park users ranged from 12 to 35 people, and the majority of people passed through the park without stopping. Those who did stop in the park primarily used the park for eating or conversing while seated on benches or the lawn. Overall, park usage was characterized as low to moderate, the periods of peak activity were during the weekday midday and afternoon hours, and the majority of activities were characterized as active or transitory in nature.

Because active or transitory activities are less sensitive to the availability of sunlight than passive uses, such as reading or napping, shadow occurring in the afternoon in spring, summer, and fall after 3:30 p.m. is not likely to affect the majority of park users. During most affected times, there would be other seating areas of the park that would be unshaded where, assuming sunlight is desirable for the park user, would be able to sit or lie down in sunlight instead of the areas receiving net new shadow from the proposed project or residential variant. One exception is the date of maximum shading (August 16 and April 26) where nearly the entire park would be shaded for approximately 17 minutes from 6:45 p.m. until sunset at 7:02 p.m. At this point in the day, the majority of the plaza is shaded under existing conditions. Therefore, it is anticipated park users would be accustomed to shade, and would expect it given the time of day just before sunset. Therefore, given the time of day and relatively limited extent of net new shadow, park users are not anticipated to be substantially or adversely affected by new shadow.

<sup>146</sup> Park usage was observed during the COVID-19 pandemic, and, as a result, weekday midday and afternoon activity levels observed by Prevision Design in 2020 may not be representative of typical use conditions at Maritime Plaza.



## SUE BIERMAN PARK

Sue Bierman Park is a 4.09-acre urban park under the jurisdiction of the San Francisco Recreation and Parks Department. The park is physically divided into two parts by Drumm Street, the western portion is bounded by Washington Street to the north, Clay Street to the south, and Davis Street to the west, while the eastern portion is bounded by Washington Street to the north, Clay Street to the south, and Embarcadero to the east. The western portion contains lawns, vegetated areas, a sculpture, and a pedestrian pathway, and the eastern portion contains lawns, a pedestrian pathway, benches, and a playground. The western portion of the park also includes a small utility building complex owned by the SFPUC.

A quantitative assessment of existing and net new shadow was performed for Sue Bierman Plaza. These results are summarized in **Table 19**.

**Table 19 Shadow on Sue Bierman Plaza**

	Proposed Project	Residential Variant
Annual Existing Shadow	42.61%	42.61%
Annual Net New Shadow Cast	0.0001%	0.0001%
Annual Total Shadow (Existing + Net New Shadow)	42.6055%	42.6055%
Number of Days Annually When Net New Shading Would Occur	26	26
Average Daily Project Net New Shadow Duration on Affected Dates	12.3 minutes	12.3 minutes
Date of Most Square-Foot Hours of Annual Net New Shading	September 20 & March 22	September 20 & March 22
Date and Time With Largest Instantaneous Net New Shadow Area	September 20 & March 22 at 6 p.m.	September 20 & March 22 at 6 p.m.
Area and Percentage of Net New Shadow on Date with Largest Instantaneous Shadow Area	344 sq. ft. (0.2%)	315 sq. ft. (0.2%)

SOURCE: Prevision Design, February 5, 2021.

As shown in Table 19, the proposed project and residential variant would contribute 0.0001 percent net new shadow as a percentage of the theoretical annual available sunlight. The average daily net new shadow on the affected dates (March 16 to March 28; September 14 to September 26) would occur for an average of 12.3 minutes and would cover on average 0.23 and 0.21 percent of the park under the proposed project and residential variant, respectively.

The park was observed over six 30-minute observation periods on October 21 and 24, 2020, to identify park usage and to determine whether park users would be adversely or substantially affected by net new shadow. During the times of observation, the majority of people passed through the park without stopping. Overall, park usage was characterized as low to moderate, and the majority of activities were characterized as active or transitory in nature. Net new shadow would affect a sliver of the northern portion of the park along the Washington Street sidewalk where there is a narrow portion of the lawn. During these times (late spring and early fall after 4 p.m.), the majority of park would be shaded from other buildings, and while there would be net new shading from the proposed project or the residential variant, park users would not be likely to notice this new shadow given the time of day and large amount of existing shadow. Moreover, because net new

shadow would be limited in area and duration, and would only affect the park on 26 days during the year in the late afternoon, new shadow would not be noticeable to park users and is not likely to substantially or adversely affect usage of the park.

### TRANSAMERICA REDWOOD PARK

The Transamerica Redwood Park is a 1.25-acre POPOS between the Transamerica Building, Washington Street, Sansome Street, and Clay Street.

This park contains several dozen mature redwood and other trees, landscaping, a fountain, fixed benches, and points of access to nearby buildings. Pursuant to planning department guidance for shadow analysis, shadow from existing trees is not depicted in the shadow diagrams. However, it should be noted that the several dozen mature redwood and other trees provide tree cover, and this is a defining feature of the park, and these trees also cast a substantial amount of shadow on the park.

The proposed project or residential variant would cast net new shadow on this park from early April through early September, with the largest amount of shadow occurring around the summer solstice (June 21). Net new shadow cast on this park would range from a few minutes in the spring and fall to approximately four hours on the summer solstice. New shadow would cover portions of the entrance to the park along Washington Street along with a seating area containing approximately 10 benches. The area of new shadow would cover 5 percent or less of the park area at any given time. Moreover, the seating area is adjacent to tall redwood trees that currently shade this area throughout the year. Therefore, net new shadow resulting from the project would likely not be noticeable given the amount of existing shadow from the large redwood trees adjacent to the seating area, and thus would not substantially or adversely affect the use and enjoyment of this park.

### SIDEWALKS

The proposed project or residential variant would add shade to portions of streets, sidewalks, and private property in the vicinity of the project site at various times throughout the year. Shadows on streets and sidewalks would not exceed levels commonly expected in urban areas and would be considered a less-than-significant effect under CEQA. Although occupants of nearby properties may regard the increase in shadow as undesirable, shading of private properties as a result of the proposed project would not be considered a significant impact under CEQA.

Overall, the proposed project or residential variant would cast net new shadow on the Maritime Plaza, Sue Bierman Park, Transamerica Redwood Park in the vicinity of the project. Net new shadow at the Sue Bierman Park and Transamerica Redwood Park would likely not be noticeable; however, net new shadow would reach Maritime Plaza for 232 days per year, which could be noticeable to park users that are particularly sensitive to the availability of sunlight. However, it was observed that the majority of park users engage in transitory activities that are less sensitive to the availability of sunlight. Therefore, while some passive park users may notice additional shadow during the afternoon in spring, summer, and fall, net new shadow would not substantially affect the use and enjoyment of this park. As a result, the proposed project or residential variant would have a **less-than-significant** impact on affected open spaces.

**Impact C-SH-1: The proposed project or residential variant, in combination with cumulative projects, would not result in a significant cumulative impact. (*Less than Significant*)**

The cumulative development for the shadow analysis consists of the 220 Battery Street, 447 Battery Street, 545 Sansome Street, and 425 Broadway projects. The four cumulative projects considered in this section would combine with the shadow effects from the proposed project or residential variant. Of these reasonably foreseeable projects in the vicinity of the project site, only 447 Battery Street would cast shadow that would combine with the shadow effects from the proposed project or residential variant in a cumulative manner. Shadow from the 447 Battery Street project, in combination with shadow from the proposed project or residential variant, would increase shadow at Maritime Plaza by 1.2 percent compared to existing conditions. No other parks would be affected by cumulative project shadow in combination with the proposed project or residential variant.

Net new cumulative shadow would affect Maritime Plaza for up to 307 days per year from January 19 to November 21. Average daily shadow on the affected dates would last for 3 hours, 12 minutes, and would cover on average 4.6 percent of the park. Net new cumulative shadow would be cast only during afternoon hours and would not affect the plaza until 2:15 p.m. in the winter, or until 4 p.m. in the spring and summer. On the affected days, shadow would cover walking paths, vegetation, and some seating areas. On the dates of maximum shading (August 23 and April 19) at 6 p.m., net new shadow from the 447 Battery Street project would cover a minor portion of the northeast corner of the lawn in front of the Punch Line venue.

As described under Impact SH-1 for Maritime Plaza, observations of the park characterized park usage as low to moderate, and the majority of activities were characterized as active or transitory in nature. Because active or transitory activities are less sensitive to the availability of sunlight than passive uses, such as reading or napping, shadow occurring in the afternoon is not likely to affect the majority of park users. Furthermore, on the date of maximum cumulative shading, there would be unshaded portions of the park to the north and south of the lawn in front of the one-story office building containing the Punch Line venue where park users could choose to sit on concrete benches instead of the lawn. Therefore, people using the park for passive uses who would be more sensitive to shadow could continue using the park for the same purpose (sitting, reading, or napping) while still in sunlight. Overall, because most users of the park that could be affected by net new cumulative shadow would be passing through the park and would be unaffected by new shadow, the cumulative impact from the proposed project or residential variant shadow in combination with reasonably foreseeable projects, would not result in a significant cumulative shadow impact. Therefore, cumulative impacts related to shadow would be ***less than significant***.

## 11. Recreation

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>11. RECREATION.</b> Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### IMPACT EVALUATION

**Impact RE-1: The proposed project or residential variant would increase the use of existing parks and other recreational facilities, but not to such an extent such that substantial physical deterioration of the facilities would occur or be accelerated or such that the construction of new or expanded facilities would be required. (*Less than Significant*)**

The project site is in a densely developed urban neighborhood that does not contain large regional park facilities but does include a number of smaller neighborhood parks, open spaces, and other recreational facilities.

The following public parks, open spaces, and recreation facilities are located within 0.3 mile of the project site:

- Transamerica Redwood Park (0.03 mile west of the project site);
- Maritime Plaza (0.04 mile east of the project site);
- Sydney G. Walton Square (0.13 mile northeast of the project site);
- Empire Park (0.15 mile southwest of the project site);
- Portsmouth Square Plaza (0.19 mile west of the project site);
- Sue Bierman Park (0.24 mile east of the project site);
- St Mary's Square (0.29 mile southwest of the project site);
- Mechanics Monument Plaza (0.30 mile southeast of the project site);
- Willie "Woo Woo" Wong Playground (0.32 mile southwest of the project site); and
- One Bush Plaza (0.33 mile south of the project site).

The proposed project does not propose residential units; therefore, project implementation would not result in a permanent increase in demand for parks and recreational facilities in the vicinity. However, site visitors,

including hotel, fitness center, office, and restaurant/retail patrons and the approximately 435 employees who would work at the project site, may use nearby recreational facilities, as listed above. The proposed project would convert a portion of Merchant Street into a shared street/living alley with approximately 4,810 square feet of POPOS. This open space would partially offset the demand for open space generated by visitors and employees. With the availability of open space on and near the project site, proposed project-generated recreational demand could be accommodated by existing recreational facilities.

The residential variant would result in 605 residents on the project site and would result in a permanent increase in demand for parks and recreational facilities in the vicinity. The residential variant would provide approximately 6,384 square feet of common open space for the residents in the form of a solarium, which would partially offset the demand for open space generated by the residential variant. Additionally, demand for existing parks and recreation facilities would be expected to be balanced among facilities, and demand would not result in substantial physical deterioration of any existing resource.

Overall, implementation of the proposed project or residential variant would result in an increase in the demand for recreational resources on the project site, in the project area, and at the citywide level. On a citywide/regional basis, the increased demand on recreational facilities from 605 new residents would be minimal considering the number of people living and working in San Francisco and the region as well as the number of existing recreational facilities. The anticipated use of recreational resources would not be expected to substantially increase or accelerate the physical deterioration or degradation of existing recreational resources, and would not result in the need to provide new or expanded parks or recreational facilities since that demand would be partially offset by the development of common open space facilities for residents on the project site, and demand for parks and recreation facilities would be expected to be balanced among existing facilities. For these reasons, implementation of the proposed project or residential variant would not increase the use of existing recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. Therefore, the proposed project or residential variant's impact to recreational resources would be **less than significant**, and no mitigation is necessary.

## CUMULATIVE IMPACTS

**Impact C-RE-1: The proposed project or residential variant, in combination with cumulative projects in the vicinity of the project site, would not result in significant cumulative impact on recreational facilities. (*Less than Significant*)**

Cumulative development projects located within an approximately 0.25-mile radius of the project site are identified in Table 3, p. 36. The cumulative projects at 425 Broadway, 650 Sacramento Street, and 220 Battery Street would consist of residential development in the project vicinity and would result in an intensification of land uses. The intensification of land uses would result in a cumulative increase in the demand for recreational facilities and resources in the area and in the city overall. The city has accounted for such growth in the 2014 update of the ROSE of the San Francisco General Plan.<sup>147</sup> As discussed above in Section E.2, *Population and Housing*, p. 48, the additional growth proposed by the residential variant would not result in a net increase in city growth not accounted for in citywide projections. As discussed under Impact RE-1, there are 10 parks, open spaces, or other recreational facilities within 0.3 mile of the project site. The proposed project or residential variant would convert Merchant Street into a shared street/living alley with approximately 4,810 square feet of POPOS and the residential variant would also include approximately 6,384 square feet of common open space for project residents on the project site. It is expected that these

<sup>147</sup> San Francisco Planning Department, *ROSE*, April 2014, pp. 20–36.

existing and proposed recreational facilities would be able to accommodate the increase in demand for recreational resources generated by the proposed project (visitors and 435 employees) or the residential variant (approximately 605 new residents) and cumulative projects noted above, which would consist of residential development, would also comply with on-site open space requirements. For these reasons, the proposed project or residential variant, in combination with cumulative projects, would not result in a significant cumulative impact on recreational resources; therefore, impacts would be **less than significant**.

## 12. Utilities and Service Systems

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>12. UTILITIES AND SERVICE SYSTEMS.</b> Would the project:					
a) Require or result in the relocation or construction of new or expanded, water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site is within an urban area that is served by existing utility service systems, including water, wastewater and stormwater collection and treatment, solid waste collection and disposal, electric power, natural gas, and telecommunications facilities.

The proposed project would add a new daytime and nighttime population to the site in the form of office, hotel, retail, and restaurant patrons and employees. This increase in the non-residential population would increase the demand for utilities and service systems on the site. The residential variant would add 605 residents on the project site, which would also increase the demand for utilities and service systems on the site.

**Impact UT-1: The proposed project or residential variant would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, would not exceed the capacity of the wastewater treatment provider serving the project site, or require construction of new stormwater drainage facilities, wastewater treatment facilities, or electric power, natural gas, or telecommunications facilities or expansion of existing facilities. (*Less than Significant*)**

The project site is entirely paved and is currently developed with existing buildings and Fire Station 13.

The project site is served by San Francisco's combined sewer system, which handles both sewage and stormwater runoff. The Southeast Water Pollution Control Plant (Southeast Plant) provides wastewater and stormwater treatment and management for the east side of the city, including the project site. The SFPUC provides and operates water supply and wastewater/stormwater collection and treatment facilities for the city. Pacific Gas and Electric Company provides electricity and natural gas to the project site, and various private companies provide telecommunications facilities.

Implementation of the proposed project would incrementally increase wastewater flows from the project site due to the introduction of office space, retail/restaurant use, fitness center, 200 hotel guest rooms, and approximately 435 employees. Implementation of the residential variant would incrementally increase wastewater flows from the project site due to the introduction of approximately 605 residents on the project site.

The project site is within a designated recycled water use area. Because the proposed project or residential variant would involve new construction totaling 40,000 square feet or more, the proposed project or residential variant would be required to comply with the Recycled Water Program<sup>148</sup> by installing recycled water systems for all applicable uses, including toilets and irrigation. The proposed project and residential variant would incorporate water-efficient fixtures, as required by Title 24 of the California Code of Regulations and the San Francisco Green Building Ordinance. The residential variant would also include a graywater treatment plant, which would treat water from showers, bathtubs, washing machines, and bathroom sinks. The treated graywater would be used for landscape irrigation, reducing the amount of water entering the wastewater system. Compliance with these regulations would reduce wastewater flows and the amount of potable water used for building functions. The SFPUC infrastructure capacity plans account for projected population and employment growth. The incorporation of water-efficient fixtures into new development is also accounted for by the SFPUC because widespread adoption can lead to more efficient use of existing capacity. For these reasons, the proposed project and residential variant would not require the construction of new or an expansion of existing wastewater treatment facilities.

The project site is developed and covered with impervious surfaces, thus the proposed project or residential variant would not create additional impervious surfaces. The proposed project and residential variant would be required to comply with the San Francisco Stormwater Management Ordinance (Ordinance No. 83-10),<sup>149</sup> adopted in 2010 and amended in 2016, and the 2016 Stormwater Management Requirements and Design Guidelines,<sup>150</sup> which would require the project to reduce or eliminate the existing volume and rate of stormwater runoff discharged from the project site. Furthermore, because more than 50 percent of the

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<sup>148</sup> SFPUC, *Recycled Water Installation Procedures for Developers*, 2015, <https://www.sfwater.org/modules/showdocument.aspx?documentid=1292>, accessed December 18, 2020.

<sup>149</sup> City and County of San Francisco, Ordinance No. 83-10, Requiring the Development and Maintenance of Stormwater Management Controls, 2010.

<sup>150</sup> City and County of San Francisco, *Stormwater Management Requirements and Design Guidelines*, 2016, <https://sfwater.org/Modules/ShowDocument.aspx?documentID=9026>, accessed December 18, 2020.

project site is currently covered by impervious surfaces, some of which would be replaced by pervious surfaces as part of project design (e.g., landscaping), and because the project site is currently served by the combined sewer system, the stormwater management approach must reduce the existing runoff flow rate and volume for a two-year 24-hour design storm by 25 percent.

To achieve compliance with the Stormwater Management Requirements and Design Guidelines, the proposed project or residential variant would be required to implement and install appropriate stormwater management systems that retain runoff onsite, promote stormwater reuse, and limit site discharges from entering the city's combined stormwater/sewer system. This, in turn, would limit the incremental demand on both the collection system and wastewater facilities resulting from stormwater discharges and would minimize the potential for constructing new or expanding existing stormwater drainage facilities. A stormwater control plan, required per the city's Stormwater Management Ordinance (Ordinance No. 83-10), would be designed for review and approval by the SFPUC because the proposed project would result in ground disturbance of an area greater than 5,000 square feet. The stormwater control plan would also include a maintenance agreement, signed by the project sponsor, to ensure proper care of the necessary stormwater controls. Therefore, the proposed project or residential variant would not substantially increase the amount of stormwater runoff to the extent that existing facilities would need to be expanded or new facilities would need to be constructed. Impacts on stormwater infrastructure would be less than significant.

The proposed project or residential variant would result in an incremental increase in the demand for electricity, natural gas, and telecommunications; however, this modest increase would not exceed the demand expected and provided for in the project area by utility service providers. As discussed in Impact UT-2 below, the proposed project or residential variant would result in an incremental increase in the demand for water supply, but would not itself result in the need for the construction of new or expanded water treatment facilities or delivery infrastructure.

For these reasons, the utilities demand associated with the proposed project or residential variant would not exceed the service capacity of the existing providers and would not require the construction of new facilities or expansion of existing facilities. Therefore, this impact would be **less than significant** and no mitigation measures are necessary.

**Impact UT-2: Sufficient water supplies are available to serve the proposed project or residential variant, and reasonably foreseeable future development in normal, dry, and multiple dry years unless the Bay-Delta Plan Amendment is implemented; in that event, the SFPUC may develop new or expanded water supply facilities to address shortfalls in single and multiple dry years, but this would occur with or without the proposed project or residential variant. Impacts related to new or expanded water supply facilities cannot be identified at this time or implemented in the near-term; instead, the SFPUC would address supply shortfalls through increased rationing, which could result in significant cumulative effects, but the proposed project or residential variant would not make a considerable contribution to impacts from increased rationing. (*Less than Significant*)**

The SFPUC adopted the 2015 Urban Water Management Plan for the City and County of San Francisco.<sup>151</sup> The plan estimates that current and projected water supplies will be sufficient to meet future retail demand<sup>152</sup>

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<sup>151</sup> SFPUC, 2015 Urban Water Management Plan for the City and County of San Francisco, June 2016, <https://sfwater.org/index.aspx?page=75>, accessed December 18, 2020.

<sup>152</sup> "Retail" demand represents water the SFPUC provides to individual customers within San Francisco. "Wholesale" demand represents water the SFPUC provides to other water agencies supplying other jurisdictions.



through 2035 under normal year, single dry-year and multiple dry-year conditions; however, if a multiple dry-year event occurs, the SFPUC would implement water use and supply reductions through its drought response plan and a corresponding retail water shortage allocation plan.

In December 2018, the State Water Resources Control Board adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, which establishes water quality objectives to maintain the health of our rivers and the Bay-Delta ecosystem (the Bay-Delta Plan Amendment).<sup>153</sup> The state water board has stated that it intends to implement the Bay-Delta Plan Amendment by the year 2022, assuming all required approvals are obtained by that time. Implementation of the Bay Delta Plan Amendment would result in a substantial reduction in the SFPUC's water supplies from the Tuolumne River watershed during dry years, requiring rationing to a greater degree in San Francisco than previously anticipated to address supply shortages not accounted for in the 2015 Urban Water Management Plan.

The SFPUC has prepared a memorandum discussing future water supply scenarios given adoption of the Bay-Delta Plan Amendment.<sup>154</sup> As discussed in the memorandum, implementation of the plan amendment is uncertain for several reasons and whether, when, and the form in which the Bay Delta Plan Amendment would be implemented, and how those amendments could affect the SFPUC's water supply, is currently unknown. The memorandum estimates total shortfalls in water supply (that is, total retail demand minus total retail supply) to retail customers through 2040 under three increasingly supply-limited scenarios:

1. Without implementation of the Bay-Delta Plan Amendment wherein the water supply and demand assumptions contained in the 2015 Urban Water Management Plan and the 2009 Water Supply Agreement as amended would remain applicable.
2. With implementation of a voluntary agreement between the public utilities commission and the State Water Resources Control Board that would include a combination of flow and non-flow measures that are designed to benefit fisheries at a lower water cost, particularly during multiple dry years, than would occur under the Bay-Delta Plan Amendment).
3. With implementation of the Bay-Delta Plan Amendment as adopted.

As estimated in the SFPUC memorandum, water supply shortfalls during dry years would be lowest without implementation and highest with implementation of the Bay-Delta Plan Amendment. Shortfalls under the proposed voluntary agreement would be between those with and without implementation of the Bay-Delta Plan Amendment.<sup>155</sup>

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<sup>153</sup> State Water Resources Control Board Resolution No.2018-0059, Adoption of Amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and Final Substitute Environmental Document, December 12, 2018, [https://www.waterboards.ca.gov/plans\\_policies/docs/2018wqcp.pdf](https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf).

<sup>154</sup> Memorandum from Steven R. Ritchie, SFPUC, to Lisa Gibson, Environmental Review Officer, San Francisco Planning Department, Environmental Planning Division, May 31, 2019.

<sup>155</sup> On March 26, 2019, the SFPUC adopted Resolution No.19-0057 to support its participation in the voluntary agreement negotiation process. To date, those negotiations are ongoing under the California Natural Resources Agency. The SFPUC submitted a proposed project description that could be the basis for a voluntary agreement to the state water board on March 1, 2019. As the proposed voluntary agreement has yet to be accepted by the state water board as an alternative to the Bay-Delta Plan Amendment, the shortages that would occur with its implementation are not known with certainty; however, if accepted, the voluntary agreement would result in dry year shortfalls of a lesser magnitude than under the Bay-Delta Plan Amendment.

Under these three scenarios, the public utilities commission would have adequate water to meet total retail demands through 2040 in normal years.<sup>156</sup> For single dry and multiple (years 1, 2 and 3) dry years of an extended drought, the public utilities commission memorandum estimates that shortfalls of water supply relative to demand would occur both with and without implementation of the Bay-Delta Plan Amendment. Without implementation of the plan amendment, shortfalls would range from approximately 3.6 to 6.1 mgd or 5 to 6.8 percent shortfall during dry years through the year 2040.

With implementation of the Bay-Delta Plan Amendment, shortfalls would range from 12.3 mgd (15.6 percent) in a single dry year to 36.1 mgd (45.7 percent) in years seven and eight of the 8.5-year design drought based on 2025 demand levels and from 21 mgd (23.4 percent) in a single dry year to 44.8 mgd (49.8 percent) in years seven and eight of the 8.5-year design drought based on 2040 demand.

The proposed project or residential variant do not require a water supply assessment under the California Water Code. Under sections 10910 through 10915 of the California Water Code, urban water suppliers like the public utilities commission must prepare water supply assessments for certain large “water demand” projects, as defined in CEQA Guidelines section 15155.<sup>157</sup> The proposed project would not employ more than 1,000 persons, would not have more than 250,000 square feet of office or commercial floor space, and the hotel would not have more than 500 rooms. The residential variant would construct 256 residential units instead of the hotel, office, fitness center, and retail/restaurant uses in the proposed project. The development of 256 residential units represents approximately half of the 500-unit limit provided in CEQA Guidelines section 15155(1)(A). Consequently, neither the proposed project nor residential variant qualifies as a “water demand” project as defined by CEQA Guidelines section 15155(a)(1), and a water supply assessment is not required.

While a water supply assessment is not required, the following discussion provides an estimate of the proposed project and residential variant’s maximum water demand in relation to the three supply scenarios. No single development project alone in San Francisco would require the development of new or expanded water supply facilities or require the SFPUC to take other actions, such as imposing a higher level of rationing across the city in the event of a supply shortage in dry years. Therefore, a separate proposed project- or residential variant-only analysis is not provided for this topic. The following analysis instead considers whether the proposed project or residential variant in combination with both existing development and projected growth through 2040 would require new or expanded water supply facilities, the construction or relocation of which could have significant cumulative impacts on the environment. It also considers whether a high level of rationing would be required that could have significant cumulative impacts. It is only under this cumulative context that development in San Francisco could have the potential to require new or

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<sup>156</sup> Based on historic records of hydrology and reservoir inflow from 1920 to 2017, current delivery and flow obligations, and fully implemented infrastructure under the 2018 Phased Water System Improvement Program Variant, normal or wet years occurred 85 out of 97 years. This translates into roughly nine normal or wet years out of every 10 years. Conversely, system-wide rationing is required roughly one out of every 10 years. This frequency is expected to increase as climate change intensifies.

<sup>157</sup> Pursuant to CEQA Guidelines section 15155(1), “a water-demand project” means:

- (A) A residential development of more than 500 dwelling units.
- (B) A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- (C) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor area.
- (D) A hotel or motel, or both, having more than 500 rooms.
- (E) An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 50,000 square feet of floor area.
- (F) A mixed-use project that includes one or more of the projects specified in subdivisions (a)(1)(A), (a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(1)(E), and (a)(1)(G) of this section.
- (G) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project.

expanded water supply facilities or require the SFPUC to take other actions, which in turn could result in significant physical environmental impacts related to water supply. If significant cumulative impacts could result, then the analysis considers whether the project would make a considerable contribution to the cumulative impact.

Based on guidance from the California Department of Water Resources and a citywide demand analysis, the SFPUC has established 50,000 gallons per day as an equivalent project demand for projects that do not meet the definitions provided in CEQA Guidelines section 15155(a)(1). The development under the proposed project would represent 40 percent of the 500 dwelling unit hotel room limit provided in section 15155(1)(D), and total commercial space would represent 33 percent of the 250,000 square feet of commercial space provided in section 15155(1)(C). The development under the residential variant would represent 51 percent of the 500 dwelling unit limit provided in section 15155(1)(G). In addition, the proposed project would incorporate water-efficient fixtures as required by Title 24 of the California Code of Regulations and the city's Green Building Ordinance. It is therefore reasonable to assume that the proposed project would result in an average daily demand of less than 50,000 gallons per day of water.

The SFPUC has prepared estimates of total retail demand in five-year intervals from 2020 through 2040. Assuming the project would demand no more than 50,000 gallons of water per day (or 0.05 mgd), the maximum demand would represent a small fraction of the total projected retail water demand, ranging from 0.07 to 0.06 percent between 2020 and 2040. As such, the project's water demand is not substantial enough to require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

Sufficient water supplies are available to serve the proposed project or residential variant and reasonably foreseeable future development in normal, dry, and multiple dry years unless the Bay-Delta Plan Amendment is implemented. As indicated above, the proposed project or residential variant's maximum demand would represent less than 0.06 percent of the total retail demand in 2040 when implementation of the Bay-Delta Plan Amendment would result in a retail supply shortfall of up to 49.8 percent in a multi-year drought. The SFPUC has indicated that it is accelerating its efforts to develop additional water supplies and explore other projects that would increase overall water supply resilience in the case that the Bay-Delta Plan Amendment is implemented. The SFPUC has identified possible projects that it will study, but it has not determined the feasibility of the possible projects, has not made any decision to pursue any particular supply projects, and has determined that the identified potential projects would take anywhere from 10 to 30 years or more to implement. The potential impacts that could result from the construction and/or operation of any such water supply facility projects cannot be identified at this time. In any event, under such a worst-case scenario, the demand for the SFPUC to develop new or expanded dry-year water supplies would exist regardless of whether the proposed project or residential variant is constructed.

Given the long lead times associated with developing additional water supplies, in the event the Bay-Delta Plan Amendment were to take effect sometime after 2022 and result in a dry-year shortfall, the expected action of the SFPUC for the next 10 to 30 years (or more) would be limited to requiring increased rationing. As discussed in the SFPUC memorandum, the SFPUC has established a process through its Retail Water Shortage Allocation Plan for actions it would take under circumstances requiring rationing. The level of rationing that would be required of the proposed project or residential variant is unknown at this time. Both direct and indirect environmental impacts could result from high levels of rationing. However, the small increase in potable water demand attributable to the project compared to citywide demand would not substantially affect the levels of dry-year rationing that would otherwise be required throughout the city.

Therefore, the proposed project or residential variant would not make a considerable contribution to a cumulative environmental impact caused by implementation of the Bay-Delta Plan Amendment. This impact would be **less than significant** and no mitigation measures are necessary.

**Impact UT-3: The proposed project or residential variant would be served by a landfill with adequate permitted capacity to accommodate the project's solid waste disposal needs and comply with all applicable statutes and regulations related to solid waste. (Less than Significant)**

In September 2015, the city entered into a landfill disposal agreement with Recology, Inc. for disposal of all solid waste collected in San Francisco, at the Recology Hay Road Landfill in Solano County, through September 2024 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.<sup>158</sup> The Recology Hay Road Landfill is permitted to accept up to 2,400 tons per day of solid waste. At that maximum permitted rate, the landfill has the capacity to accommodate solid waste until approximately 2034. Under existing conditions, 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, which includes residential and commercial waste and demolition and construction debris that cannot be reused or recycled.<sup>159</sup> At the current rate of disposal, the landfill closure has operating capacity until 2041. The city's contract with the Recology Hay Road Landfill will extend until 2031 or when the city has disposed 5 million tons of solid waste, whichever occurs first. At that point, the city would either further extend the landfill contract or find and entitle an alternative landfill site.

Further, the proposed project or residential variant would be required to implement the city's Mandatory Recycling and Composting Ordinance (Ordinance No. 100-09), the objective of which is to minimize the city's landfill trash generation. In compliance with this ordinance, the proposed project or residential variant would be required to provide convenient facilities for the separation of recyclables, compostables, and landfill trash for its users. Occupants of the project site would be required to separate disposed material.

Construction of the proposed project or residential variant also would generate demolition and construction waste. The city's Construction and Demolition Debris Recovery Ordinance (Ordinance No. 27-06) prohibits construction and demolition material from being taken to landfill or placed in the garbage. All mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling, and source separated material must be taken to a facility that recycles or reuses those materials.

As discussed above, the city has access to adequate landfill capacity at least through 2031 and potentially through 2041 and anticipates that an adequate alternative site will be identified at that point. On this basis, the city has adequate solid waste capacity to serve the proposed project or residential variant, and the impact with respect to landfill capacity would be **less than significant**, and no mitigation measures are required.

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<sup>158</sup> 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, [http://sfmea.sfplanning.org/2014.0653E\\_Revised\\_FND.pdf](http://sfmea.sfplanning.org/2014.0653E_Revised_FND.pdf), accessed December 13, 2020.

<sup>159</sup> Ibid.

**Impact UT-4: Construction and operation of the proposed project or residential variant would follow all applicable statutes and regulations related to solid waste. (No Impact)**

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. Reports filed by the San Francisco Department of the Environment show that the city generated approximately 870,000 tons of waste material in 2000. By 2010, that figure decreased to approximately 455,000 tons. Waste diverted from landfills is defined as recycled or composted. San Francisco has a goal of 75 percent landfill diversion by 2010 and 100 percent by 2020. As of 2012, 80 percent of San Francisco's solid waste was being diverted from landfills, indicating that San Francisco exceeded the 2010 diversion target.<sup>160</sup>

San Francisco's Construction and Demolition Ordinance (Ordinance No. 27-06) requires a minimum of 65 percent of all construction and demolition debris to be recycled and diverted from landfills. Furthermore, San Francisco Ordinance No. 100-09 (the Mandatory Recycling and Composting Ordinance) requires everyone in San Francisco to separate their solid waste into recyclables, compostables, and trash. The proposed project or residential variant 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. Accordingly, the proposed project and residential variant would be required to follow state and federal regulations related to the disposal of hazardous wastes, and hazardous wastes would be transported to a permitted disposal or recycling facility. The proposed project or residential variant would comply with all applicable local, state, and federal laws and regulations pertaining to solid waste, and there would be **no impact**.

**Impact C-UT-1: The proposed project or residential variant, in combination with cumulative projects, would not result in a significant cumulative impact on utilities and service systems. (Less than Significant)**

Implementation of the proposed project or residential variant, in combination with cumulative development in the project vicinity would result in an incremental increase in population, water consumption, and wastewater and solid waste generation. The SFPUC has accounted for such growth in its water demand and wastewater service projections, and the city has implemented various programs to divert solid waste from landfills. For these reasons, the proposed project or residential variant would not combine with cumulative projects in the project vicinity to create a significant cumulative impact on utilities and service systems and impacts would be **less than significant**.

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<sup>160</sup> San Francisco Department of the Environment, Zero Waste FAQ, <http://www.sfenvironment.org/zerowaste/overview/zero-waste-faq>, accessed December 13, 2020.

### 13. Public Services

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>13. PUBLIC SERVICES.</b> Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 of the public services such as fire protection, police protection, schools, parks, or other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project’s impacts on parks and open spaces are discussed in Section E.11, *Recreation*, p. 140. Impacts on other public services are discussed below.

**Impact PS-1: The proposed project or residential variant would not result in an increase in demand for police protection, fire protection, schools, or other services to an extent that would result in substantial adverse physical impacts associated with the construction or alteration of governmental facilities, the construction of which could result in significant environmental impacts. (Less than Significant)**

#### **FIRE PROTECTION SERVICES**

The San Francisco Fire Department provides fire suppression services and unified emergency medical services and transport, including basic life support and advanced life support services, in the city. The project site is within the service area of the fire department’s Battalion 1, and Fire Station 13 is located on the project site.<sup>161</sup> Other stations in Battalion 1 include Station 2 (1340 Powell Street at Broadway), Station 28 (1814 Stockton Street at Greenwich Street), and Station 41 (1325 Leavenworth Street at Jackson Street). Of these three, Station 2 is the closest fire station, located approximately 0.45 mile northwest of the project site.

As part of the proposed project or residential variant, all buildings on the project site would be demolished, including Fire Station 13. As described in Section A, *Project Description*, p. 1, during construction, fire department personnel and firetrucks would be relocated to nearby offsite fire stations, and would continue to serve the Financial District neighborhood and the city in general, and no interruption of fire department service would occur. Thus, the existing levels of fire protection would be maintained during construction of the proposed project or residential variant.

Thus, impacts to fire protection during construction would be temporary and **less than significant**.

<sup>161</sup> San Francisco Fire Department, Fire Station Locations, <http://sf-fire.org/fire-station-locations>, accessed December 7, 2020.

As discussed in Section A, *Project Description*, p. 1, the proposed project or residential variant would construct a replacement fire station on the eastern portion of the project site. The replacement fire station would be approximately 1,725 and 1,675 square feet larger than the existing fire station on the project site for the proposed project and residential variant, respectively. The environmental impacts of construction of the replacement fire station are analyzed throughout this initial study. As described throughout this document, construction of the proposed project or residential variant would not result in any significant environmental impacts. Operational impacts related to the replacement fire station, such as noise impacts from sirens and staffing levels, would be similar to existing conditions.

The fire department and building department would review building plans to ensure that proposed buildings comply with the latest California Building Code requirements for fire and life safety measures as specified in the San Francisco Fire Code. These requirements include measures related to emergency access and egress; fire hydrants and sprinkler systems; fire-rated design, construction, and materials; restrictions on occupant loads; emergency lighting; smoke alarms; and mechanical smoke control and emergency notification systems. The proposed project, residential variant, and replacement fire station design has been prepared with the input of the fire department. The project sponsor would continue to work with the fire department to determine utility and access requirements for fire protection and emergency services at the project site. Adherence to San Francisco Fire Code requirements as part of the project design would minimize demand for future fire protection services.

The proposed project or residential variant would be constructed in a fully developed area of San Francisco. However, implementation of the proposed project and residential variant would result in a more intensive use of the project site than currently exists. The proposed project or residential variant's increase in use and service population at the project site would therefore increase demand for public fire protection and emergency medical services. Once constructed and under operation, the proximity of the project site to Fire Station 13 would help minimize fire department response times should incidents occur at the project site. The environmental impacts of demolition, temporary relocation of fire equipment and personnel, and construction of the replacement fire station are analyzed throughout this initial study, and the construction of additional fire facilities beyond those proposed by the project sponsor would not be required. This impact would be **less than significant**, and no mitigation measures are necessary.

### **POLICE PROTECTION SERVICES**

The San Francisco Police Department (police department) provides police protection in the city. Police department services include responding to calls for police assistance, monitoring and managing traffic, and performing general surveillance duties. The project site is within the police department's Central District, and the closest police station is the Central Police Station at 766 Vallejo Street (between Stockton and Powell streets), approximately 0.50 mile northwest of the project site.<sup>162</sup>

The proposed project would result in a more intensive use at the project site compared with current conditions with the addition of hotel rooms, fitness center, office, and restaurant/retail space; therefore, it would most likely incrementally increase the number of police service calls in the project area. The increased demand for police services related to the residential variant's new residents would also be incremental. The increased demand from the proposed project or residential variant would not be considered substantial given the ongoing staffing analysis and dynamic resource deployment that occurs on a citywide basis. In compliance with city charter mandate, police department resources are regularly redeployed based on need

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<sup>162</sup> San Francisco Police Department, Central Station, <https://www.sanfranciscopolice.org/stations/central-station>, accessed December 7, 2020.

in order to maintain charter-mandated staffing and acceptable service ratios. Therefore, implementation of the proposed project or residential variant would not require the construction of new or alteration of existing police facilities. This impact would be **less than significant**, and no mitigation measures are necessary.

**Impact PS-2: The residential variant would increase the population of school-aged children and the demand for school services, but not to the extent that would require new or physically altered school facilities, the construction of which could result in significant environmental impacts. (Less than Significant)**

The proposed project would not include any residential units and, thus, would not directly contribute to school-aged children or the demand for school services. The residential variant would increase the project site population by an estimated 605 residents, of which a portion would be school-aged children who would be anticipated to attend public schools in San Francisco. The residential variant would result in the generation of approximately 26 public school students.<sup>163</sup>

John Yehall Chin Elementary School, at 350 Broadway (about 0.20 mile north of the project site); Gordon J. Lau Elementary School, at 950 Clay Street (about 0.40 mile west of the project site); and Garfield Elementary School, at 420 Filbert Street (about 0.50 mile northwest of the project site) are the nearest public elementary schools to the project site. The closest middle school is Francisco Middle School, about 0.80 mile to the northwest, and the closest high school is the Galileo Academy of Science and Technology, approximately 1.32 miles northwest of the project site.

According to a facilities survey, the San Francisco Unified School District has capacity for approximately 63,400 students. Student enrollment as of fall 2016 was approximately 57,500 students, with an expected enrollment increase to 64,000–73,000 by 2030.<sup>164</sup> Given the district's overall capacity, the increase of 26 students associated with the residential variant would contribute to the overall demand for schools but would not by itself result in the need for new facilities.

Ultimately, given the school district's overall capacity of approximately 63,400 students, the estimated increase of up to 26 public school students under the residential variant would not substantially change the demand for schools. Residential variant-generated growth would be within the existing available capacity of school district system. Therefore, implementation of the proposed project or residential variant would not necessitate the need for new school facilities or the expansion of existing school facilities and the impacts would be **less than significant**, and no mitigation measures are necessary.

**Impact PS-3: The proposed project or residential variant would increase demand for other public services, but not to the extent that would require new or physically altered governmental facilities, the construction of which could result in significant environmental impacts. (Less than Significant)**

Because the proposed project would not include new residential units, increased demand for government services and facilities, such as public libraries, is not anticipated with proposed project implementation.

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<sup>163</sup> Student generation rates are calculated based on the following: 256 market-rate units, therefore (256 units x 0.10 students/unit) = 26 students. This is based on data provided by: Lapkoff & Gobalet Demographic Research, Inc., *Demographic Analyses and Enrollment Forecasts for the San Francisco Unified School District*, February 16, 2018, p. 36, table II-10, <https://archive.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf>, accessed December 7, 2020.

<sup>164</sup> San Francisco Unified School District, *Growing Population, Growing Schools*. SPUR Forum Presentation, Slide 14, dated August 31, 2016, [https://www.spur.org/sites/default/files/events\\_pdfs/SPUR%20Forum\\_August%2031%202016.pptx .pdf](https://www.spur.org/sites/default/files/events_pdfs/SPUR%20Forum_August%2031%202016.pptx.pdf), accessed December 2, 2018.



Although some hotel patrons and employees may use government services and facilities, such use would not be expected to rise to a level that could not be accommodated by existing facilities.

The residential variant would incrementally increase demand for local library services. The Chinatown Branch of the San Francisco Public Library is located at 1135 Powell Street, approximately 0.46 mile west of the project site.<sup>165</sup> The North Beach Branch is located at 850 Columbus Avenue, approximately 0.79 mile northwest of the project site.<sup>166</sup> Given there are multiple library facilities within one mile of the project site, these resources would satisfy the demand for library services generated by the residential variant's estimated 605 residents. Therefore, the proposed project or residential variant would not require construction of new or expanded library facilities. Therefore, impacts on library services would be **less than significant**, and no mitigation measures are necessary.

**Impact C-PS-1: The proposed project or residential variant, in combination with cumulative projects, would not result in a significant cumulative impact on public services. (Less than Significant)**

The geographic context for cumulative fire, police, and library impacts are the police, fire, and library service areas, while the geographic context for cumulative school impacts is the school district service area. Cumulative development in the project vicinity would result in an intensification of land uses and a cumulative increase in the demand for fire protection, police protection, school services, and other public services. The fire and police departments, the school district, libraries, and other city agencies respond to growth and other changing service needs through ongoing analysis of applicable metrics, such as staffing, capacity, response times, and call volumes. As a result, projected future development would not result in any service gap in citywide police, fire, emergency medical services, and libraries. The residential variant, in combination with cumulative development in the project vicinity would result in the construction of 322 residential units, which would generate approximately 32 public school students.<sup>167</sup> As described under Impact PS-2, the San Francisco Unified School District has capacity for additional students. Given the district's overall capacity, the increase of 32 students associated with the residential variant and cumulative projects would not substantially change the demand for schools and would be within the existing available capacity of school district system. Because there is no shortfall with respect to schools in the surrounding area, the proposed project or residential variant, there would not be any service gaps in citywide school and library services. Therefore, the proposed project or residential variant would not combine with reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on public services. This impact would be **less than significant**, and no mitigation measures are necessary.

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<sup>165</sup> San Francisco Public Library, Chinatown/Him Mark Lai, <https://sfpl.org/locations/chinatown>, accessed December 7, 2020.

<sup>166</sup> San Francisco Public Library, North Beach, <https://sfpl.org/locations/north-beach>, accessed December 7, 2020.

<sup>167</sup> Student generation rates are calculated based on the following: 322 market-rate units, therefore (322 units x 0.10 students/unit) = 32 students. This is based on data provided by: Lapkoff & Gobalet Demographic Research, Inc., *Demographic Analyses and Enrollment Forecasts for the San Francisco Unified School District*, February 16, 2018, p. 36, Table II-10, <https://archive.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf>, accessed December 7, 2020.

## 14. Biological Resources

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>14. BIOLOGICAL RESOURCES.</b> Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state- or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is paved with existing buildings and located within a built urban environment. The project site does not contain any riparian habitat, other sensitive natural community, or federally protected wetlands. There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans that apply to the project site. Therefore, topics E.14.b, E.14.c, and E.14.f are not applicable to the proposed project or residential variant.

**Impact BI-1: The proposed project or residential variant would not have a substantial adverse effect, either directly or indirectly through habitat modifications, on any special-status species and would not interfere with the movement of native resident or wildlife species or with established native resident or migratory wildlife corridor, or impede the use of native wildlife nursery site. (*Less than Significant*)**

The project site is fully developed and entirely impervious. Therefore, it does not provide habitat for any special-status plant or wildlife species. Thus, project implementation would not affect the habitat of any such species. However, migrating birds regularly pass through San Francisco, which is situated along the Pacific Flyway, a migratory route that is used by numerous avian species.<sup>168</sup> Nesting birds, their nests, and eggs are fully protected by the federal Migratory Bird Treaty Act (MBTA).<sup>169</sup> Although the proposed project and residential variant would be subject to the MBTA, the site does not contain habitat that supports migratory birds. The proposed project and residential variant would construct new buildings that would be taller than those currently on the project site. The location, building height, and building materials, particularly transparent or reflective glass, may present risks for birds as they travel along their migratory paths. The likelihood of migratory bird collisions could increase because of the proposed façade, which would include a contemporary glass design. The city has adopted guidelines to address this issue and has regulations for bird-safe designs within the city. Planning code section 139, Standards for Bird-Safe Buildings, establishes building design standards to reduce avian mortality rates associated with bird strikes.<sup>170</sup> The building standards are based on two types of hazards: (1) location-related hazards where the siting of a structure 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 in or within 300 feet of an Urban Bird Refuge. Therefore, the standards related to location-specific hazards are not applicable to the proposed project and residential variant. The proposed project and residential variant would comply with the feature-related hazards standards<sup>171</sup> of section 139 by using bird-safe glazing on 100 percent of any feature-related hazards.

The proposed project or residential variant would be subject to, and would comply with, City-adopted regulations for bird-safe buildings, as well as federal and state migratory bird regulations. Therefore, because implementation of the proposed project or residential variant would not have a substantial adverse effect on migratory avian species, and because the project site does not support habitat for any special-status species, impacts would be ***less than significant***, and mitigation measures are not necessary.

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<sup>168</sup> Audubon Society, The Flyways: Pacific Flyway, <https://www.audubon.org/pacific-flyway>, accessed November 11, 2020.

<sup>169</sup> USFWS, Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service: Migratory Bird Treaty Act of 1918, 2017, <https://www.fws.gov/laws/lawsdigest/migtrea.html>, accessed November 11, 2020.

<sup>170</sup> San Francisco Planning Department, Standards for Bird-Safe Buildings, July 14, 2011, [https://sfplanning.org/sites/default/files/documents/reports/bird\\_safe\\_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%202011-30-11.pdf](https://sfplanning.org/sites/default/files/documents/reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%202011-30-11.pdf), accessed November 11, 2020.

<sup>171</sup> Feature-related hazards are defined as the uninterrupted glazed segments of a building that measure 24 square feet or larger.

**Impact BI-2: The proposed project or residential variant would not conflict with any local policies protecting biological resources, such as a tree preservation policy or ordinance. (*Less than Significant*)**

The project site does not contain existing trees or other vegetation that would need to be removed as part of the proposed project or residential variant. The removal of street trees or significant trees, as well as the planting of new street trees, is subject to the provisions of the San Francisco Urban Forestry Ordinance, which is codified as article 16 of the San Francisco Public Works Code.<sup>172</sup>

Implementation of the proposed project or residential variant would remove three street trees along the north side of Merchant Street. The proposed project or residential variant would comply with San Francisco Public Works Code section 806(d)(2) requirements for street trees associated with new developments by including three new street trees along Washington Street, four new street trees along Sansome Street, and five new street trees along Merchant Street. An in-lieu fee would be paid for street tree plantings otherwise required by the public works code that cannot reasonably be accommodated on the site. The proposed project or residential variant would not conflict with the City's local tree ordinance and impacts would be ***less than significant***, and no mitigation measures are necessary.

**Impact C-BI-1: The proposed project or residential variant, in combination with cumulative projects, would not result in a significant cumulative impact related to biological resources. (*Less than Significant*)**

The cumulative development projects identified in Table 3, p. 36, would result in an overall intensification of land uses within the surrounding dense urban environment, as is typical of infill development. The project site is fully developed and impervious. It does not provide habitat for any special-status plant or wildlife species. However, the proposed project or residential variant and other nearby projects would add numerous tall buildings in the vicinity, which could, in the event of a bird strike, injure or kill birds. However, as with the proposed project or residential variant, nearby cumulative projects would be subject to the MBTA, which protects special-status bird species; the California Fish and Game Code; and the bird-safe building and urban forestry ordinances. As with the proposed project or residential variant, compliance with these ordinances would reduce the effects of other development projects to less-than-significant levels. Therefore, the proposed project or residential variant would not combine with cumulative development projects to result in a significant cumulative impact related to biological resources. Cumulative impacts on biological resources would be ***less than significant***, and no mitigation measures are necessary.

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<sup>172</sup> Street trees and significant trees are defined in Article 16, Sections 802 and 810A, respectively, of the San Francisco Public Works Code.

## 15. Geology and Soils

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>15. GEOLOGY AND SOILS.</b> Would the project:					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project or residential variant would connect to the existing sewer system; there would be no use of septic tanks or alternative wastewater disposal systems for the proposed project or residential variant. Therefore, topic E.15(e) is not applicable.

This section describes the geology, soils, and seismicity characteristics of the project area as they relate to the proposed project and residential variant. The analysis in this section is based on the geotechnical report prepared for the proposed project and residential variant by an independent consultant.<sup>173</sup> This geotechnical report is the primary source of information included in this section. The scope of the geotechnical

<sup>173</sup> Langan, *Geotechnical Investigation, 530 Sansome Street, 425 and 435-445 Washington Street, San Francisco, California*, December 20, 2019.

investigation included rotary-wash borings, a downhole geophysical survey, laboratory testing for engineering properties, and evaluation of soil and groundwater conditions at the site.

**Impact GE-1: The proposed project or residential variant would not directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, liquefaction, or landslides. (Less than Significant)**

The project site is not located within an earthquake fault zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known fault or potentially active fault exists within the project site.<sup>174</sup> In a seismically active area, such as the San Francisco Bay Area, the remote possibility exists for future faulting in areas where no faults were previously known to exist, but the likelihood of such fault rupture is extremely low.

The San Andreas, Hayward, and San Gregorio faults are the closest major faults.<sup>175</sup> The project site is approximately 13 miles east of the San Andreas Fault Zone, 16 miles west of the Hayward Fault Zone, and 19 miles east of the San Gregorio Fault. In addition, according to the U.S. Geological Survey, the overall probability of moment magnitude 6.7 or greater earthquake to occur within the San Francisco Bay Area during the next 30 years is 72 percent.<sup>176</sup> The proposed project or residential variant would most likely experience periodic minor earthquakes and perhaps a major earthquake (moment magnitude greater than 6) on one of the nearby faults during its service life.

The proposed project or residential variant would cantilever over the third floor of the replacement fire station and the buildings would be structurally separated above grade. However, the proposed buildings would include a continuous basement beneath the entire site. The top of the basement slab would be approximately 40 feet bgs (near an elevation of -37 feet). The proposed structures may be supported on deep foundations (piles) that gain support in the stiff- to- hard clay, in the dense to very dense sand above the Old Bay Clay, and in bedrock. Alternatively, because excavation for the three basement levels would extend through the fill and Bay Mud, support of the proposed structures may be on a mat foundation. The geotechnical investigation indicated that additional investigation is needed to evaluate the appropriate foundation design. At this time, the geotechnical consultant recommends augured-cast-in-place piles.

To ensure that the potential for adverse effects related to geology and soils are adequately addressed, San Francisco relies on the state and local regulatory process for review and approval of building permits, pursuant to the California Building Code and the San Francisco Building Code, which is the state building code plus local amendments that supplement the state code, including the building department's administrative bulletins. The proposed project or residential variant would be required to follow the building department's local implementing procedures, including administrative bulletins, which are part of the local building code, and information sheets, which clarify building department requirements and procedures. On November 21, 2018, the building department issued Administrative Bulletin AB-082, Guidelines and

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<sup>174</sup> California Geological Survey, Earthquake Zones of Required Investigation, 2020, <https://maps.conservation.ca.gov/cgs/EQZApp/app/>, accessed on November 6, 2020.

<sup>175</sup> Langan Engineering and Environmental services, Inc., *Geotechnical Investigation, 530 Sansome Street, 425 and 435-445 Washington Street, San Francisco, California*, December 20, 2019.

<sup>176</sup> U.S. Geological Survey, Uniform California Earthquake Rupture Forecast (UCERF3), Fact Sheet 2015-3009, UCERF3: A New Earthquake Forecast for California's Complex Fault System, March 2015.

Procedures for Structural, Geotechnical, and Seismic Hazard Engineering Design Review,<sup>177</sup> superseding AB-082, originally issued March 25, 2008, and revised December 19, 2016. The guidelines describe the review process for structural, geotechnical, and seismic hazard engineering design, including the characteristics considered in determining whether review is required and, if so, which reviews are required.

Because of the building department's permit review process, ensuring that structural and foundation plans comply with applicable building code provisions and conform to the measures recommended in the project-specific geotechnical report, and the recommendations made by the engineering design review team, as required by AB-082,<sup>178</sup> the impacts of the proposed project or residential variant related to strong seismic ground shaking would be **less than significant**.

With respect to landslides, the project site is relatively level and not within a mapped landslide zone or within a designated earthquake-induced landslide zone.<sup>179</sup> Therefore, the proposed project would have no impact with respect to the potential for landslides, and this topic is not discussed further.

As described above, the project site is mapped as situated within a state-designated liquefaction hazard zone, according to the seismic hazards map for the area.<sup>180</sup> This means that there is potential for permanent ground displacement onsite, such as liquefaction. The California Geological Survey provided recommendations for the content of site investigation reports within seismic hazard zones in Special Publication 117A, which recommends that at least one exploration point extend to a depth of at least 50 feet to evaluate liquefaction potential.<sup>181</sup> Loose sand above the groundwater table may densify and loose to medium-dense sand below the groundwater table may liquefy during strong ground shaking due to a seismic event on a nearby fault.

The potential for liquefaction was analyzed during the geotechnical investigation. The geotechnical investigation identified the surface fill down to as deep as 18 feet bgs and the sand units below the Bay Mud below about 53 feet bgs as potentially susceptible to liquefaction during a future seismic event at the site. However, because the upper approximately 40 feet of soil would be excavated at the site, the fill materials susceptible to liquefaction would be removed. The geotechnical investigation estimates that post-earthquake, liquefaction-induced settlement at the bottom of the lowest basement slab from this layer could be on the order of 0.5 to 1 inch following a maximum considered earthquake event on a nearby active fault generating a peak ground acceleration of 0.51 times gravity amount of seismic shaking. For a 35-foot-deep excavation, assuming bottom of foundation at elevation -37 feet, the geotechnical investigation estimates about one inch of liquefaction-induced settlement could occur at the bottom of the foundation subgrade. In addition, the geotechnical investigation concludes that additional investigation for liquefaction potential is needed in the southern portion of the project site. The geotechnical investigation concluded that the potential for lateral spreading to impact the proposed building foundation is low and that the planned excavation would remove the soils within the building footprint that are susceptible to cyclic densification and the potential for cyclic densification to impact the proposed building foundation is considered to be low also.

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<sup>177</sup> San Francisco Department of Building Inspection, Administrative Bulletin 082, Guidelines and Procedures for Structural Design Review, November 21, 2018, <http://sfdbi.org/sites/default/files/AB-082.pdf>, accessed November 11, 2020.

<sup>178</sup> Ibid.

<sup>179</sup> Langan Engineering and Environmental services, Inc., *Geotechnical Investigation, 530 Sansome Street, 425 and 435-445 Washington Street, San Francisco, California*, December 20, 2020.

<sup>180</sup> Ibid.

<sup>181</sup> California Geological Survey, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A, September 11, 2008.

Although the risk of liquefaction, lateral spreading, and seismic densification is considered to be low, in accordance with the provisions of the 2019 state building code and Special Publication 117A, the building department permit review process would ensure that the project's structural and foundation plans comply with applicable building code provisions and conform to the measures recommended in the project-specific geotechnical report. Conformance with the review process and recommendations made by the engineering design review team, as required by AB-082, would ensure that the proposed project and residential variant would not exacerbate the potential for seismic-related ground failure, including liquefaction and lateral spreading. Therefore, this impact would be **less than significant**.

Although the proposed project or residential variant would be located in a seismically active area, neither would exacerbate the potential for fault rupture, ground shaking, or liquefaction-related geologic hazards. Although future occupants could be subjected to such hazards in a future geologic event, the proposed project and residential variant design and compliance with applicable building standards, Administrative Bulletin AB-083, and the Seismic Hazards Act would minimize potential hazards. Therefore, this impact would be **less than significant**, and no mitigation measures are required.

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

The project site is generally flat, impervious, and underlain by artificial fill, and does not contain native topsoil. Site preparation and excavation activities would disturb soil to a depth of up to 40 feet bgs, which would require excavation of approximately 28,000 cubic yards of material, creating the potential for windborne and waterborne soil erosion. However, compliance with the Construction Dust Control Ordinance would reduce the risk of erosion (see Impact AQ-1). For these reasons, construction of the proposed project or residential variant would not result in the loss of topsoil.

During construction and operation, the construction contractor would be required to implement an erosion and sediment control plan for construction activities, in accordance with article 4.2 of the San Francisco Public Works Code. Compliance with these requirements would ensure that the proposed project would not result in soil erosion. Therefore, impacts related to soil erosion or loss of topsoil would be **less than significant**. No mitigation measures would be required.

**Impact GE-3: The proposed project or residential variant would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse. (Less than Significant)**

As discussed under Impact GE-1, the project site is not within an area that is susceptible to landslides or lateral spreading. The project site and vicinity do not include any hills or cut slopes that could cause or be subject to a landslide or soil movement. The proposed project or residential variant do not include the injection or extraction of water or petroleum oil and therefore would not be subject to or cause subsidence. As discussed above, the project site is within a state-designated seismic hazard zone for liquefaction and would be subject to the requirements of the Seismic Hazards Act. In addition, the sides of the excavation could be susceptible to collapse during construction.

In addition, the proposed project or residential variant are required to comply with the provisions of the California Building Code and the San Francisco Building Code that address issues related to seismic safety



and unstable soil. The geotechnical report includes recommendations related to the following aspects of construction: demolition and site preparation; grading; excavation; foundation; and shoring. Implementation of these recommendations would ensure that the proposed project or residential variant would not result in unstable soil conditions that could result in onsite or offsite subsidence, liquefaction, or collapse. This impact would be **less than significant**, and no mitigation measures are required.

**Impact GE-4: The proposed project or residential variant would not create substantial risks as a result of being located on expansive soil. (Less than Significant)**

Expansive soils expand and contract in response to changes in soil moisture, most notably when near-surface soils fluctuate from saturated to low-moisture-content conditions and back again. Determinations regarding the presence of expansive soils are typically based on site-specific data. The site is underlain by fill, Bay Mud, and dense to very dense clayey sands/medium-stiff to hard sandy clays and dense to very dense sands. However, the proposed project or residential variant would remove all of the shallow soils for construction of the underground parking levels, thus eliminating the potential for expansive soils to damage the structure. Accordingly, potential impacts related to expansive soils would be **less than significant**. No mitigation measures are required.

**Impact GE-5: The proposed project or residential variant could directly or indirectly destroy a unique paleontological geologic feature. (Less than Significant with Mitigation)**

Paleontological resources include fossilized remains or traces of animals, plants, and invertebrates from a previous geological period. Paleontological resources are deposited and preserved within particular lithologic (rock) units. Lithologic units that may contain fossils include sedimentary and volcanic formations. Collecting localities and the geologic formations containing those localities are also considered paleontological resources because they represent a limited, nonrenewable resource that, once destroyed, cannot be replaced. Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered have high potential for containing additional significant paleontological resources.<sup>182</sup>

The excavation for the three basement levels would extend down to approximately 40 feet bgs. The geotechnical investigation indicates that the materials encountered would be fill, Bay Mud, and then an Upper Sand unit. The fill would not contain paleontological resources. The Bay Mud would likely be too young (less than 5,000 years) to contain unique paleontological resources. The Upper Sand would be older and may correspond with the Colma Sand,<sup>183</sup> known to contain paleontological resources. Previous occurrences of large late Pleistocene vertebrate remains from three individuals of Colombian mammoth (*Mammuthus columbi*) and remains from a single giant bison (*Bison latifrons*) have been recovered from gravelly sandy clay of the Colma Formation exposed in an excavation at the intersection of Pacific Avenue and Kearny Street, approximately 0.25 mile northwest of the project site.<sup>184</sup> As a result, the proposed project or residential variant have a moderate potential to encounter as-yet unknown paleontological features. Implementation of **Mitigation Measure M-GE-5a, Worker Environmental Awareness Training during Ground-Disturbing Construction Activities; M-GE-5b, Discovery of Unanticipated Paleontological Resources during Ground-Disturbing Construction Activities; and M-GE-5c, Preconstruction**

<sup>182</sup> Society of Vertebrate Paleontology, *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, 2010.

<sup>183</sup> Simpson, Lori A., *Case Studies in Mission Bay, San Francisco: Deep Foundations in Challenging Soil Conditions*, 2006.

<sup>184</sup> Rodda, Peter U. and Nina Baghai, *Late Pleistocene Vertebrates from Downtown San Francisco, California, Journal of paleontology*, Vol. 67, No.6, November, 1993.

**Paleontological Evaluation for Projects located in Class 3 (Moderate) Sensitivity Areas**, would ensure that the proposed project or residential variant would not cause a substantial adverse change to the scientific significance of a paleontological feature.

**Mitigation Measure M-GE-5a: Worker Environmental Awareness Training during Ground-Disturbing Construction Activities**

Prior to commencing construction, and ongoing throughout ground disturbing activities (e.g., excavation, utility installation, the property owner or their designee (herein referred as property owner) shall ensure that all project construction workers are trained on the contents of the Paleontological Resources Alert Sheet, as provided by the environmental review officer (ERO). The Paleontological Resources Alert Sheet shall be prominently displayed at the construction site, during ground disturbing activities, to provide pre-construction worker environmental awareness training regarding potential paleontological resources.

In addition, the property owner shall inform construction personnel of the immediate stop work procedures and other procedures to be followed if bones or other potential fossils are unearthed at the project site. As new workers that will be involved in ground disturbing activities arrive at the project site, the construction supervisor shall train them.

The property owner shall submit in writing (email, letter, memo) the timing of the worker training to the ERO. The letter shall confirm the project's location, the date of training, the location of the informational handout display, and the number of participants. The letter shall be transmitted to the ERO within 5 business days of conducting the training.

**Mitigation Measure M-GE-5b: Discovery of Unanticipated Paleontological Resources during Ground-Disturbing Construction Activities**

In the event of the discovery of an unanticipated paleontological resource during construction, ground disturbing activities shall temporarily be halted within 20 feet of the find until the discovery is examined by a qualified paleontologist as recommended by the Society of Vertebrate Paleontology standards (SVP 2010) and Best Practices in Mitigation Paleontology (Murphey et al. 2019). Work within the sensitive area shall resume only when deemed appropriate by the qualified paleontologist in consultation with the ERO.

The qualified paleontologist shall determine: (1) if the discovery is scientifically significant; (2) the necessity for involving other responsible or resource agencies and stakeholders, if required or determined applicable; and (3) methods for resource recovery. If a paleontological resource assessment results in a determination that the resource is not scientifically important, this conclusion shall be documented in a Paleontological Evaluation Letter to demonstrate compliance with applicable statutory requirements (e.g., Federal Antiquities Act of 1906, CEQA Guidelines section 15064.5, California Public Resources Code chapter 17, section 5097.5, Paleontological Resources Preservation Act 2009). The Paleontological Evaluation Letter shall be submitted to the ERO for review within 30 days of the discovery.

If the qualified paleontologist determines that a paleontological resource is of scientific importance, and there are no feasible measures to avoid disturbing this paleontological resource, the qualified paleontologist shall prepare a Paleontological Impact Reduction Program (impact reduction

program). The impact reduction program shall include measures to fully document and recover the resource of scientific importance. The qualified paleontologist shall submit the impact reduction program to the ERO for review and approval. The impact reduction program shall be submitted to the ERO for review within 10 business days of the discovery. Upon approval by the ERO, ground disturbing activities in the project area shall resume and be monitored as determined by the qualified paleontologist for the duration of such activities.

The impact reduction program shall include: (1) procedures for construction monitoring at the project site; (2) fossil preparation and identification procedures; (3) curation of paleontological resources of scientific importance into an appropriate repository; and (4) preparation of a Paleontological Resources Report (report or paleontology report) at the conclusion of ground disturbing activities. The report shall include dates of field work, results of monitoring, fossil identifications to the lowest possible taxonomic level, analysis of the fossil collection, a discussion of the scientific significance of the fossil collection, conclusions, locality forms, an itemized list of specimens, and a repository receipt from the curation facility. The property owner shall be responsible for the preparation and implementation of the impact reduction program, in addition to any costs necessary to prepare and identify collected fossils, and for any curation fees charged by the paleontological repository. The paleontology report shall be submitted to the ERO for review within 30 business days from conclusion of ground disturbing activities, or as negotiated following consultation with the ERO.

**Mitigation Measure M-GE-5c: Preconstruction Paleontological Evaluation for Projects located in Class 3 (Moderate) Sensitivity Areas**

The project site is located in San Francisco in Moderate Sensitivity Area (Class 3), which require ground disturbance activities deeper than 5 feet and would include the removal of more than 2,500 cubic yards of soil. The property owner shall engage a qualified paleontologist to complete a site-specific Preconstruction Paleontological Resources Evaluation (paleontology preconstruction evaluation) prior to commencing soil-disturbing activities occurring on the project site, for projects located in moderate sensitivity zones. Prior to issuance of any demolition or building permit, the property owner shall submit the Preconstruction Paleontological Evaluation to the ERO for approval.

The purpose of the site-specific preconstruction evaluation is to identify early the potential presence of significant paleontological resources on the project site. At a minimum, the study shall include:

1. Project Description
2. Regulatory Environment – outline applicable federal, state and local regulations
3. Summary of Sensitivity Classification
4. Research Methods, including but not limited to:
  - 4.1. Field studies conducted by the approved paleontologist to check for fossils at the surface and assess the exposed sediments.
  - 4.2. Literature Review to include an examination of geologic maps and a review of relevant geological and paleontological literature to determine the nature of geologic units in the project area.

4.3. Locality Search to include outreach to the University of California Museum of Paleontology in Berkeley.

5. Results: to include a summary of literature review and finding of potential site sensitivity for paleontological resources; and depth of potential resources if known.
6. Recommendations for any additional measures that could be necessary to avoid or reduce any adverse impacts to recorded and/or inadvertently discovered paleontological resources of scientific importance, in addition to paleontology standard requirements for Worker Environmental Awareness Training during Construction (M-GE-4a) and Discovery of Unanticipated Paleontological Resources during Construction (M-GE-4b). Such measures could include:
  - 6.1. Avoidance: If the cost of fossil recovery or other impact reduction options is determined to be too high, or permanent damage to the resource caused by surface disturbance is considered to be unavoidable, given the proposed construction, it may be necessary to “avoid” or “reroute” the portion of the project that intersects the fossil locality in order to prevent adverse impacts on the resource. Avoidance should also be considered if a known fossil locality appears to contain critical scientific information that should be left undisturbed for subsequent scientific evaluation. Avoidance for later scientific research is the typical mitigation recommendation made for scientifically significant extensive paleontological discoveries.
  - 6.2. Fossil Recovery: If isolated small, medium- or large-sized fossils are discovered within a project area during field surveys or construction monitoring, and they are determined to be scientifically significant, they should be recovered. Fossil recovery may involve simply collecting a fully exposed fossil from the ground surface, or may involve a systematic excavation, depending upon the size and complexity of the fossil discovery. Fossil excavations should be designed in such a way as to minimize construction delays while properly collecting the fossil and associated data according to professional paleontological standards.
  - 6.3. Sampling: Scientifically significant microfossils (vertebrate, invertebrate, plant, or trace fossils) may be identified in rock matrix during surveys or monitoring, or, if they are known to occur elsewhere in the same geologic unit or type of deposit in the general area, a determination of their presence or absence may require the use of test sampling of rock matrix for screen-washing in a paleontological laboratory. In some cases, depending upon the geologic unit involved, test sampling may be appropriate even if microfossils are not visible in the field. The fossils found, if any, will then be inspected and evaluated to determine their significance and whether additional steps are necessary to reduce paleontological impacts. Such steps may include collection of additional matrix for screen-washing. The decision to sample may not be made until monitoring is occurring, because it is usually triggered by conditions in the field.
  - 6.4. Monitoring: If scientifically important paleontological resources are known to be present in an area, or if there is a moderate or high likelihood that subsurface fossils are present in geologic units or members thereof within a given project area based on prior field surveys, museum records, or scientific or technical literature, paleontological monitoring of construction excavations would be required. Monitoring involves systematic inspections of graded cut slopes, trench sidewalls, spoils piles, and other types of construction excavations

for the presence of fossils, and the fossil recovery and documentation of these fossils before they are destroyed by further ground disturbing actions. Standard monitoring is typically used in the most paleontologically sensitive geographic areas/geologic units (moderate, high and very high potential); while spot-check monitoring is typically used in geographic areas/geologic units of moderate or unknown paleontological sensitivity (moderate or unknown potential). The goal of monitoring is to identify scientifically significant subsurface fossils as soon as they are unearthed in order to minimize damage to them and remove them and associated contextual data from the area of ground disturbance, thereby resulting in subsurface paleontological clearance. Microfossil sampling, macrofossil recovery, and avoidance of fossils may all occur during any monitoring program.

With implementation of Mitigation Measure M-GE-5a through M-GE-5c, impacts on unique paleontological features would be **less than significant with mitigation**.

**Impact C-GE-1: The proposed project or residential variant, in combination with cumulative projects, would not result in a significant cumulative impact to on geology and soils. (Less than Significant)**

Geology, soil, and paleontological impacts are generally site specific and localized. Cumulative projects could require various levels of excavation or cut-and-fill activity, which would affect local geologic conditions and could affect paleontological resources. Cumulative projects would also be subject to building department requirements regarding geotechnical review and the state and local building codes. In addition, site-specific geotechnical review and monitoring for paleontological resources would reduce each project's impacts associated with geology, seismic safety, and paleontological resources. Furthermore, site-specific mitigation would be developed, when necessary, based on site conditions. Similar to the proposed project or residential variant, the projects listed in Table 3, p. 36, would be subject to these mandatory seismic safety standards and design review procedures. Compliance with these standards and procedures would ensure that the effects from nearby cumulative projects would be reduced to less-than-significant levels. Therefore, cumulative impacts would be **less than significant**.

## 16. Hydrology and Water Quality

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>16. HYDROLOGY AND WATER QUALITY.</b> Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:					
i) Result in substantial erosion or siltation on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) 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; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is located well inland from both the San Francisco Bay and the Pacific Ocean. It would not be subject to seiche or potential inundation in the event of a tsunami occurring along the San Francisco coast (see Maps 5 and 6 of the San Francisco General Plan Community Safety Element). The Storm Flood Risk Map indicates that the site is not within a Special Flood Hazard Area,<sup>185</sup> an area subject to a 100-year flood. Therefore, topic E.16(d) does not apply.

**Impact HY-1: The proposed project or residential variant would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (Less than Significant)**

Site preparation and excavation activities associated with the proposed project or residential variant would disturb soil to a depth of up to 40 feet bgs, which would require excavation of approximately 28,000 cubic yards of material, which could adversely affect water quality. Contaminants from construction vehicles and equipment as well as sediment from soil erosion could increase the pollutant load in runoff being transported to receiving waters during construction.

Groundwater encountered during construction of the proposed project and residential variant would be subject to the requirements of article 4.1 of the San Francisco Public Works Code, Industrial Waste, which requires groundwater to meet specified water quality standards before it is discharged to the combined

<sup>185</sup> San Francisco Public Utilities Commission, 100-Year Storm Flood Risk Map, July 2019, <https://sfplanninggis.org/floodmap/>, accessed February 17, 2021

sewer system. These measures ensure the protection of water quality during construction, which represents a temporary condition. The Bureau of Systems Planning, Environment, and Compliance of the SFPUC must be notified regarding projects that necessitate dewatering. In this case, the SFPUC may require water quality analysis prior to discharge. The project sponsor would be required to obtain a Batch Wastewater Discharge Permit from the SFPUC Wastewater Enterprise Collection System Division prior to any dewatering activities.

As discussed in Section E.12, *Utilities and Service Systems*, p. 142, wastewater and stormwater from the project site would continue to flow into the city's combined stormwater and sewer system and be treated to the standards contained within the city's NPDES permit for the Southeast Water Pollution Control Plant prior to discharge into San Francisco Bay. Treatment would be provided pursuant to the effluent discharge standards included within the city's NPDES permit for the treatment plant. In addition, as new construction, the proposed project and residential variant would be required to meet the standards for stormwater management identified in the San Francisco Stormwater Management Ordinance and meet the SFPUC stormwater management requirements, per the 2016 Stormwater Management Requirements and Design Guidelines.

The project sponsor would be required to submit for approval by the SFPUC a Stormwater Control Plan that complies with the city's 2016 Stormwater Management Requirements and Design Guidelines. Because the project would disturb more than 5,000 square feet of ground surface, the proposed project and residential variant would be required to comply with public works code article 4.2, section 146 et seq. (Construction Site Runoff Control). A construction site runoff control permit would be obtained prior to any land-disturbing activities and would include an erosion and sediment control plan.

The proposed project or residential variant's construction and operational activities would not substantially degrade surface water or groundwater quality or violate water quality standards and waste discharge requirements. The proposed project or residential variant would have **less-than-significant** impacts on water quality, and no mitigation measures are necessary.

**Impact HY-2: The proposed project or residential variant would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin. (Less than Significant)**

The project site is impervious; the proposed project and residential variant would not increase the amount of impervious surface on the site. Therefore, the proposed project or residential variant would not result in any change in infiltration on or increase runoff from the project site.

Although groundwater was located approximately 10 feet bgs during the geotechnical investigation, this depth may vary with the seasons and the amount of rainfall. Because the proposed project or residential variant would excavate to approximately 40 feet bgs, it is likely that groundwater would be encountered; therefore, dewatering would be required during construction.

The project site is located in the downtown San Francisco groundwater basin. All groundwater resources are managed by the SFPUC's groundwater management program, ensuring that local groundwater resources designated for current or future beneficial uses are properly protected to prevent overdraft, pollution, or contamination.

Project operation would not extract underlying groundwater supplies. Therefore, groundwater resources would not be substantially depleted, and the proposed project or residential variant would not otherwise substantially interfere with groundwater recharge or impede sustainable groundwater management. The proposed project or residential variant would have a ***less-than-significant*** impact on groundwater, and no mitigation measures are necessary.

**Impact HY-3: The proposed project or residential variant would not substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river or the addition of impervious surfaces that would result in substantial erosion, siltation, or flooding; substantially increase the rate or amount of surface runoff and result in flooding onsite or offsite; or create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (*Less than Significant*)**

The project site is impervious; no streams or creeks are present on the project site. The proposed project or residential variant would not change the area of impervious surfaces. However, new construction is subject to the 2016 Stormwater Management Ordinance. The ordinance requires stormwater runoff to be reduced by 25 percent from existing conditions. The proposed project or residential variant would be designed to incrementally reduce the amount of impervious surface material on the project site through implementation of low-impact development and other measures identified in the Stormwater Management Ordinance, which also requires a decrease in the amount of stormwater runoff associated with a proposed project, per the city's Stormwater Management Requirements and Design Guidelines. Overall, impervious surfaces on the site would not change substantially as part of the proposed project and residential variant. The project site's drainage patterns would generally remain the same, and, ultimately, drainage would be improved. As such, the proposed project or residential variant would not be expected to result in substantial erosion or flooding associated with changes in drainage patterns; the potential to result in erosion or flooding would be similar to existing conditions. The impact would be ***less than significant***.

During construction and operation of the proposed project or residential variant, all wastewater and stormwater runoff from the project site would be treated at the Southeast Water Pollution Control Plant. As noted above, treatment would be provided pursuant to the effluent discharge standards contained in the city's NPDES permit for the plant. During construction and operation, the proposed project or residential variant would be required to comply with all local wastewater discharge, stormwater runoff, and water quality requirements, including the 2016 Stormwater Management Requirements and Design Guidelines, described above under Impact HY-1, and the Stormwater Management Ordinance. Compliance with the Stormwater Management Requirements and Design Guidelines would ensure that stormwater generated by the proposed project would be managed onsite to reduce the runoff flow rate and volume for a two-year 24-hour design storm by 25 percent such that the proposed project or residential variant would not contribute additional volumes of polluted runoff to the city's stormwater infrastructure. Compliance with the Stormwater Management Ordinance would ensure that the design of the proposed project or residential variant would include the installation of appropriate stormwater management systems that would retain runoff onsite, promote stormwater reuse, and limit discharges from the site to the city's combined stormwater/sewer system. Furthermore, the addition of new street trees along the project site frontages and POPOS along a portion of Merchant Street would allow runoff to infiltrate, thereby minimizing runoff that could exceed the capacity of existing or planned stormwater drainage systems. Therefore, the proposed project or residential variant would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Furthermore, the proposed project or



residential variant would not impede or redirect flood flows. Therefore, this impact would be **less than significant**, and no mitigation measures are necessary.

**Impact HY-4: The proposed project or residential variant would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (Less than Significant)**

As described above, the proposed project or residential variant would be required to meet the standards for stormwater management as well as the city's NPDES permit and SFPUC stormwater management requirements. In addition, the proposed project or residential variant would also have to comply with the appropriate water quality objectives for the region. Commonly practiced best management practices would be implemented to control construction site runoff and reduce the discharge of pollutants to storm drain systems from stormwater and other nonpoint-source runoff. As part of compliance with permit requirements during ground-disturbing or other construction activities, implementation of water quality control measures and best management practices would ensure that water quality standards would be achieved, including the water quality objectives that protect designated beneficial uses of surface and groundwater, as defined in the basin plan.

The NPDES Construction General Permit also requires stormwater discharges not to contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards, including designated beneficial uses. In addition, implementation of the SFPUC's groundwater management program and general plan policies would require protection for groundwater recharge areas and groundwater resources, as required by a sustainable groundwater management plan. Therefore, the proposed project or residential variant would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The impacts would be **less than significant**, and no mitigation measures are necessary.

**Impact C-HY-1: The proposed project or residential variant, in combination with cumulative projects, would not result in significant cumulative impacts on hydrology and water quality. (Less than Significant)**

Cumulative development in the project area would result in an intensification of land uses in the project vicinity, similar to the proposed project or residential variant and could result in an increase in polluted runoff and stormwater discharges. However, other development projects would be subject to the same water conservation and stormwater management ordinances that are applicable to the proposed project. Because other development projects would be required to comply with drainage, dewatering, and water quality regulations, similar to the proposed project or residential variant, peak stormwater drainage rates and volumes for the design storm would gradually decrease over time with new development, meaning that no substantial cumulative effects would occur. Compliance with these ordinances would reduce the effects of cumulative projects to less-than-significant levels. Therefore, the proposed project or residential variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact related to hydrology and water quality. Cumulative impacts would be **less than significant**. No mitigation measures are necessary.

## 17. Hazards and Hazardous Materials

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>17. HAZARDS AND HAZARDOUS MATERIALS.</b> Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located within an airport land use plan area, or within or adjacent to a wildland fire area. Therefore, topics E.17(e), and E.17(g) are not applicable.

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

The proposed project or residential variant would involve the demolition of structures, excavation of the site, and construction of a hotel or residential building, fire station, and basement levels approximately 40 feet deep. Construction activities would require the use and transport of limited quantities of hazardous materials such as fuels and oils, solvents and cleaning solutions, paints and thinners, and other common

construction materials. These materials could be released during transport, use, or disposal of building materials and could cause a hazard for the public. However, the city would require the project sponsor and contractor to implement best management practices as part of grading permit requirements, including hazardous materials management measures, which would reduce short-term construction-related impacts pertaining to the transport, use, and disposal of hazardous materials. The project sponsor's contractors would be required to comply with Occupational Health and Safety Administration (OSHA) and California Division of Occupational Safety and Health (Cal/OSHA) health and safety requirements, all of which would be specified in the construction contracts. These regulations are effective in reducing potential risks to workers by requiring the contractor to adhere to safety standards and provide safety training to workers. In addition, hazardous materials must be transported to and from the project site in accordance with the Resource Conservation and Recovery Act and U.S. Department of Transportation regulations and disposed of in accordance with the Resource Conservation and Recovery Act and the California Code of Regulations at a licensed facility that is permitted to accept the waste. These regulations provide a framework for controlling hazardous waste from cradle to grave, ensuring the safe transport, use, and disposal of hazardous materials during construction. These regulations govern record-keeping for all aspects of the hazardous materials lifecycle, mitigating and cleaning up existing contamination and hazardous materials spills, closing facilities with hazardous waste in place, describing requirements for emergency response, and ensuring that workers are trained to handle hazardous materials and respond appropriately to hazardous materials incidents. Because compliance with existing regulations is mandatory, construction of the proposed project or residential variant would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Accordingly, impacts associated with short-term construction-related transport, use and, disposal of hazardous materials would be **less than significant**.

Once constructed, the proposed project or residential variant would likely result in the use of common types of hazardous materials that are typically associated with hotel and residential uses, such as cleaning products, disinfectants, and solvents. These products are labeled to inform users of their potential risks and provide instruction regarding appropriate handling procedures. However, most of these materials are consumed through use, resulting in relatively little waste.

The proposed project's hotel, office, retail/restaurant, and fitness center uses and the replacement fire station would also be subject to San Francisco Health Code articles 21 and 22, implemented by the health department to ensure employee safety by identifying hazardous materials in the workplace, providing safety information to workers who handle hazardous materials, and adequately training workers. Under article 21, any facility that handles hazardous materials, including hazardous wastes, in excess of specified quantities would be required to obtain a certificate of registration from the health department and to implement a hazardous materials business plan that includes inventories, a program for reducing the use of hazardous materials and generation of hazardous wastes, site layouts, a program and implementation plan for training all new employees, and annual training for all employees, and emergency response procedures and plans. Under article 22 of the health code, generators of hazardous waste must pay an annual fee to the health department, based on the quantity of hazardous wastes generated annually. The replacement fire station would continue to store and use diesel and unleaded fuel for its vehicles and carbon dioxide (CO<sub>2</sub>) tanks for its CO<sub>2</sub> unit,<sup>186</sup> as it does now. The fire station has no plans to increase the amount of hazardous materials at the replacement station. The fire department would be required to update their hazardous materials

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<sup>186</sup> The CO<sub>2</sub> unit is a portable fire extinguishing apparatus that can be used in electrical vault fires or confined spaces. The CO<sub>2</sub> is discharged as vapor and has a smothering effect on fire, excludes oxygen from the fire, and is a non-conducting extinguishing agent. San Francisco Fire Department, *San Francisco Fire Department Apparatus Inventory*, August 2009.

business plan for the replacement fire station. For these reasons, hazardous materials used during proposed project or residential variant operation would not pose substantial public health or safety hazards resulting from routine use, transport, or disposal. Therefore, the project would result in **less-than-significant** impacts related to the use, transport, or disposal of hazardous materials during project construction or operation.

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

The project site is located within the Maher zone and is therefore subject to the requirements of the San Francisco Health Code article 22A (also known as the Maher Ordinance).<sup>187</sup> The goal of the Maher Ordinance is to protect public health and safety by requiring appropriate handling, treatment, disposal and when necessary, remediation of contaminated soils that are encountered in the building construction process. Projects that disturb 50 cubic yards or more of soil that are located on sites with potentially hazardous soil or groundwater are subject to this ordinance. The proposed project and residential variant would require excavation to a depth of approximately 40 feet bgs and the disturbance of approximately 28,000 cubic yards of soil. Therefore, the proposed project and residential variant are subject to the Maher Ordinance, which is administered and overseen by the health department.

The Maher Ordinance requires the project sponsor to retain the services of a qualified professional to prepare an environmental site assessment that meets the requirements of San Francisco Health Code section 22.A.6. A site assessment determines the potential for site contamination and the level of exposure risk as a result of a project. Based on that information, the project sponsor may be required to conduct soil and groundwater sampling and analysis; where such analysis reveals the presence of hazardous substances in excess of state or federal standards, the project sponsor is required to submit a site mitigation plan to the health department or other appropriate state or federal agency and remediate any site contamination in accordance with the approved site mitigation plan prior to issuance of a building permit.

The Maher application and Phase I environmental site assessment were submitted to the health department in in June 2020.<sup>188</sup> The project sponsor has prepared a Phase I environmental site assessment to determine the potential for site contamination. The Phase I environmental site assessment included (1) a reconnaissance-level site visit to look for evidence of past or current use that may involve release of hazardous materials or petroleum products; (2) review of information provided by the property owners; (3) environmental database records review; (4) review of local, state, and federal records pertinent to a Phase I environmental site assessment; (5) review of relevant documents and maps regarding local geologic and hydrogeologic conditions; and (6) review of historical documents, including aerial photographs, Sanborn maps, and topographical maps.<sup>189</sup>

The Phase I environmental site assessment found that three underground storage tanks (USTs), one 100-gallon waste oil UST, one 1,000-gallon diesel UST, and one 1,000-gallon gasoline UST, were removed from the 530 Sansome Street property in 1987 and 1995. Over excavation was completed as part of the UST removal, and five groundwater monitoring wells were installed on the property for groundwater monitoring. Based on

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<sup>187</sup> San Francisco Planning Department, San Francisco Property Information Map – Map Viewer, 2019, <https://sfplanninggis.org/pim/map.html?layers=Maher%20Ordinance>, accessed December 5, 2020.

<sup>188</sup> EQX Jackson SQ Holdco LLC, *MaHer Ordinance Application*, June 11, 2020.

<sup>189</sup> Langan Engineering and Environmental Services, *Phase I Environmental Site Assessment, 425 and 435-445 Washington Street, and 530 Sansome Street, San Francisco, California*, April 17, 2019.

the removal of the former USTs, and the analytical results of soil and groundwater sampling, the health department issued a case closure letter dated October 30, 1998, in regard to the former USTs. The case closure summary identified that the majority of the petroleum contamination source had been removed by over excavation. Groundwater results indicated that the concentrations of total petroleum hydrocarbons (TPH) as gasoline (TPHg), as diesel (TPHd), and benzene, toluene, ethyl benzene, and xylenes (BTEX) were decreasing. Benzene was detected at a concentration of less than one part per million (ppm) in groundwater.

The Phase I environmental site assessment identified one recognized environmental condition<sup>190</sup> (i.e., being located in the Maher zone) and one historical recognized condition (i.e., UST removals and cleanup described above).<sup>191</sup> Based on the information provided in the Phase I environmental site assessment, the project sponsor would be required to conduct soil and groundwater sampling and analysis. Where such analysis reveals the presence of hazardous substances in excess of state or federal standards, the project sponsor would be required to submit a site mitigation plan to the health department or other appropriate state or federal agency and remediate any site contamination in accordance with the approved site mitigation plan prior to issuance of a building permit. This required action would address any residual contamination from the former USTs that may be present at concentrations above regulatory standards.

The proposed project or residential variant would include demolition of buildings constructed prior to 1970. Based on the dates of construction of these buildings, some of the building materials may pre-date the 1970s ban on the use of asbestos-containing materials and lead-based paint. Any hazardous materials currently on the site, such as asbestos or lead-based paint, would be removed during or prior to demolition of the building and project construction. The materials would be handled in compliance with applicable laws and regulations.

The California Department of Toxic Substance Control considers asbestos hazardous and requires removal of asbestos-containing materials prior to demolition or construction activities that could result in disturbance of these materials. Asbestos-containing materials must be removed in accordance with local and state regulations as well as air district, Cal/OSHA, and California Department of Health Services requirements. Specifically, section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until a project sponsor has demonstrated compliance with the notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos.

The California legislature vests the local air district, in this case the air district, with the authority to regulate airborne pollutants, including asbestos-containing material, through both inspection and law enforcement. The air district is to be notified 10 days in advance of any proposed demolition or abatement work. Any disturbance of asbestos-containing material at the project site would be subject to the requirements of air district Regulation 11, Rule 2, Hazardous Materials—Asbestos Demolition, Renovation, and Manufacturing. The local office of Cal/OSHA must also be notified of asbestos abatement. Asbestos abatement contractors must follow state regulations contained in California Code of Regulations Title 8, section 1529 and sections 341.6 through 341.14, when their work involves 100 gross square feet or more of asbestos-containing

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<sup>190</sup> Recognized environmental conditions are defined by ASTM Standard Practice E1527-05 as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

<sup>191</sup> Historical recognized environmental conditions are defined by ASTM Standard Practice E1527-05 as environmental conditions that, in the past, would have been considered a recognized environmental condition but may or may not be considered a recognized environmental condition currently.

material. Pursuant to California law, the building department would not issue the required permit until the project sponsor has complied with the requirements described above.

For buildings constructed prior to 1978, such as all the existing buildings at the project site, it is highly likely that lead-based paint was used during their construction. Work that could result in any disturbance of lead-based paint must comply with section 3423 of the San Francisco Building Code, Work Practices for Lead-Based Paint on Pre-1979 Buildings and Steel Structures. Section 3423 identifies prohibited practices that may not be used when removing lead-based paint, as well as notification requirements. Where work would disturb or remove lead-based paint on the exterior of a building, or the interior of occupied buildings built prior to or on December 31, 1978, section 3407 requires specific notification and work standards and identifies prohibited work methods and penalties.

The demolition would also be subject to the Cal/OSHA lead in construction standard (California Code of Regulations title 8, section 1532.1). This standard requires development and implementation of a lead compliance plan when materials containing lead are disturbed during construction. The plan must describe activities that could emit lead, methods that would be used to comply with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction. Cal/OSHA would require 24-hour notification if more than 100 square feet of lead-containing material would be disturbed.

The proposed project or residential variant would be required to conduct soil and groundwater sampling and prepare a site mitigation plan, if determined necessary by the health department. The health department would oversee this process, and compliance with health code article 22A and the related regulations identified above would ensure that project activities that disturb or release of hazardous substances that may be present at the project site would not expose people in the project vicinity to unacceptable risk levels. Based on mandatory compliance with existing regulatory requirements, the proposed project or residential variant would not result in a significant hazard to the public or environment from contaminated soil and/or groundwater, asbestos, or lead-based paint, and the proposed project would result in a **less-than-significant** impact with respect to these hazards, and no mitigation measures are necessary.

**Impact HZ-3: The proposed project or residential variant would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (*Less than Significant*)**

The project site is within 0.25 mile of Edwin and Anita Lee Newcomer School (formerly the Chinese Education Center) located at 657 Merchant Street, Sterne School (also called the St. Mary's Bilingual Preschool) located at 838 Kearney Street, and John Yehall Chin Elementary School located at 350 Broadway.

During construction of the proposed project or residential variant, any hazardous materials currently on the site, such as asbestos-containing material and lead-based paint, would be removed before or during demolition of the existing buildings and prior to construction. The materials would be handled in compliance with applicable laws and regulations, as described under Impact HZ-2 above. During operations, the project sponsor would be required to store, handle, and dispose of hazardous materials in accordance with the regulations described under Impact HZ-1, which would ensure that hazardous materials are handled safely and there would be no potential for such materials to affect the nearest schools. Therefore, the proposed project or residential variant would have a **less-than-significant** impact related to hazardous emissions or materials within 0.25 mile of a school. No mitigation measures are necessary.

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

The city's Emergency Management Program is part of a jurisdiction-wide system that provides emergency management guidance related to prevention, preparedness, response, and recovery. The city's Emergency Response Plan uses an all-hazards approach to emergency planning and, therefore, encompasses all hazards that are applicable to the city and county, both natural and man-made, ranging from planned events to large-scale disasters.<sup>192</sup>

San Francisco ensures fire safety primarily through provisions of the building and fire codes. Final building plans would be reviewed and approved by the fire department and building department, to ensure conformance with these provisions. In this way, potential fire hazards, including those associated with hydrant water pressures and emergency access, would be mitigated during the permit review process. Compliance with fire safety regulations would ensure that the proposed project and residential variant would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan or expose people or structures to a significant risk of loss, injury, or death involving fires. Implementation of the proposed project and residential variant could add incrementally to transportation conditions in the immediate area in the event of an emergency evacuation. As discussed in Section E.5, *Transportation and Circulation*, p. 66, the proposed project or residential variant's contribution to traffic conditions would not be substantial within the context of the urban setting of the project site, and it is expected that project-related traffic would be dispersed within the existing street grid, such that there would be no significant adverse impacts on transportation conditions. Therefore, the proposed project or residential variant would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. This impact would be ***less than significant***, and no mitigation measures are necessary.

**Impact C-HZ-1: The proposed project or residential variant, in combination with cumulative projects, would not result in significant cumulative impacts related to hazards and hazardous materials. (*Less than Significant*)**

Impacts from hazards and hazardous materials are generally site specific and typically do not combine with impacts from cumulative projects to result in significant cumulative impacts. New developments in the vicinity of the project site would be subject to the same regulatory requirements as the proposed project or residential variant. Therefore, large, unexpected releases of hazardous materials of the type that would contribute to significant cumulative impacts are not expected. Compliance with existing regulations pertaining to the treatment and management of hazardous materials would ensure that the proposed project or residential variant would not combine with cumulative projects in the vicinity to result in a significant cumulative impact. Therefore, cumulative hazards impacts would be ***less than significant***, and no mitigation measures would be required.

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<sup>192</sup> City and County of San Francisco, Emergency Response Plan, December 2010.

## 18. Mineral Resources

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>18. MINERAL RESOURCES.</b> Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Impact MR-1: The proposed project or residential variant would not result in the loss of availability of a known mineral resource or a locally-important mineral resource recovery site. (No Impact)**

All land in San Francisco, including the project site, is designated Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology under the Surface Mining and Reclamation Act of 1975.<sup>193</sup> This designation indicates that there is inadequate information available for assignment to any other mineral resource zone. Based on the MRZ-4 designation, the project site is not a designated area of known mineral deposits or a locally important mineral resource recovery site. For this reason, the proposed project or residential variant would have **no impact** on mineral resources.

**Impact C-MR-1: The proposed project or residential variant, in combination with cumulative projects, would not result in a cumulative impact on mineral resources. (No Impact)**

As discussed above, San Francisco is not a designated area of significant mineral deposits and does not have locally important mineral resource recovery sites. Implementation of nearby cumulative projects would have no impact on mineral resources. For these reasons, the proposed project or residential variant would not combine with cumulative projects in the project vicinity to create a significant cumulative impact on mineral resources.

<sup>193</sup> California Department of Conservation, Division of Mines and Geology, Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Zone, Open File Report 96-03, 1996.



## 19. Energy

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>19. ENERGY.</b> Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact EN-1: The proposed project or residential variant would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (*Less than Significant*)**

The proposed project or residential variant would increase the population and intensity of the use on the project site. However, this increased intensity would not exceed anticipated growth in the area. As new buildings in San Francisco, the proposed project or residential variant would be subject to the energy conservation standards included in the San Francisco Green Building Ordinance. This would require the project to meet a number of conservation standards (e.g., install water-efficient fixtures and energy-efficient appliances) and provide features that encourage alternative modes of transportation, such as bicycle racks. Documentation showing compliance with the San Francisco Green Building Code would be submitted with building permits and enforced by the building department. In addition, the proposed project or residential variant would be required to comply with title 24 of the California Code of Regulations, which regulates energy consumption associated with heating, cooling, and ventilation as well as lighting in residential and nonresidential buildings; it is enforced by the building department. Compliance with title 24 and the San Francisco Green Building Ordinance would ensure a reduction in the use of fuel, water, and energy by the proposed project or residential variant. The proposed project or residential variant by its character, would conserve fuel and energy because it would provide hotel/office/retail or residential uses in an urban area that is accessible by transit and is also bicycle and pedestrian friendly. Therefore, the proposed project or residential variant would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with state or local plans for renewable energy and energy efficiency. The impact would be **less than significant**, and no mitigation would be required.

**Impact C-EN-1: The proposed project or residential variant, in combination with past, present, and reasonably foreseeable future projects, would increase the use of energy, fuel and water resources, but not in a wasteful manner. (*Less than Significant*)**

While overall energy demand in California is increasing commensurate with increasing population, the state is also making concerted energy conservation efforts. While the city produces a substantial demand for energy and fuel, both city and state policies seek to minimize increases in demand through conservation and energy efficiency regulations and policies such that energy is not used in a wasteful manner, and the

cumulative impacts with respect to energy and fuel use. Because San Francisco is substantially built out, development in the city’s urban core focuses on densification, which effectively reduces per capita use of energy and fuel by concentrating utilities and services in locations where they can be used efficiently. Similarly, the City recognizes the need for water conservation and has instituted programs and policies to maximize water conservation. San Francisco has one of the lowest per capita water use rates in the state<sup>194</sup> and routinely implements water conservation measures through code requirements and policy. Nearby cumulative development projects would be subject to the same energy and water conservation ordinances applicable to the proposed project or residential variant. Therefore, the proposed project or residential variant, in combination with other past, present, and reasonably foreseeable future projects, would result in a **less-than-significant** cumulative impact related to energy, fuel, and water resources.

## 20. Agriculture and Forestry Resources

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<p><b>20. AGRICULTURE AND FORESTRY RESOURCES.</b> 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 Department 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:</p>					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<sup>194</sup> San Francisco Public Utilities Commission, Water Resources Division Annual Report, Fiscal Year 2018–19, <https://sfwater.org/Modules/ShowDocument.aspx?documentid=14560>, accessed January 5, 2021.

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site does not contain any prime farmland, unique farmland, farmland of statewide importance, forest, or timberlands; does not support agricultural or timber uses; is not zoned for agricultural or timber uses; and is not under a Williamson Act contract.<sup>195,196</sup> Because the project site does not contain agricultural uses or forest land and is not zoned for such uses, the proposed project or residential variant would not result in the conversion of farmland to non-agricultural use or forest land to non-forest use. Therefore, none of the agriculture and forest resources significance criteria is applicable to the proposed project or residential variant, and these topics are not discussed further.

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<sup>195</sup> California Department of Conservation, California Important Farmland Finder, <https://maps.conservation.ca.gov/DLRP/CIFF/>, accessed December 6, 2020.

<sup>196</sup> The Williamson Act is a California law enacted in 1965 that provides property tax relief to owners of farmland and open space land in exchange for a 10-year agreement that the land will not be developed or converted into another use. The City and County of San Francisco does not offer Williamson Act contracts.

## 21. Wildfire

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>21. WILDFIRE.</b> If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

San Francisco County does not contain any state responsibility area land or lands classified as very high fire severity zones.<sup>197</sup> There are no landslide-prone areas in the immediate vicinity of the site.<sup>198</sup> Therefore, none of the wildfire significance criteria are applicable to the proposed project or residential variant, and these topics are not discussed further.

<sup>197</sup> California Department of Forestry and Fire Protection (CAL FIRE), San Francisco County Fire Hazard Severity Zone (FHSZ) Map, November 2008, [https://osfm.fire.ca.gov/media/6791/fhsz06\\_1\\_map38.pdf](https://osfm.fire.ca.gov/media/6791/fhsz06_1_map38.pdf), accessed December 6, 2020.

<sup>198</sup> City and County of San Francisco, *San Francisco General Plan*, Community Safety, an Element of the General Plan of the City and County of San Francisco, Map 04 October 2012.

## 22. Mandatory Findings of Significance

Topic	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
<b>22. MANDATORY FINDINGS OF SIGNIFICANCE.</b> Does the project:					
a) Have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: Authority cited: Public Resources Code sections 21083 and 21083.05, 21083.09. Reference: Section 65088.4, Gov. Code; Public Resources Code sections 21073, 21074, 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21080.3.1, 21080.3.2, 21082.3, 21084.2, 21084.3, 21093, 21094, 21095, and 21151; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

- a) The proposed project or residential variant would not substantially degrade or 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, or reduce the number or restrict the range of a rare or endangered plant or animal.

As described in Section E.3, *Cultural Resources*, p. 51, and Section E.4, *Tribal Cultural Resources*, p. 64, construction activities associated with the proposed project and residential variant could result in potential impacts on historic architectural resources, unknown archeological resources, human remains, and tribal cultural resources. These impacts would be less than significant with implementation of Mitigation Measures M-CR-1: Interpretation and Relocation Plan, M-CR-3, Archeological Testing, and M-TCR-1, Tribal Cultural Resources Archeological Resource Preservation Plan and/or Interpretive Program. As described in Section E.15, *Geology and Soils*, p. 157, construction activities associated with the proposed project and residential variant could result in potential impacts on paleontological resources. This impact would be less than significant with implementation of Mitigation Measure M-GE 5a, Worker Environmental Awareness Training during Ground-Disturbing Construction Activities, M-GE-5b, Discovery of Unanticipated Paleontological Resources during Ground-Disturbing Construction Activities,

and M-GE-5c, Preconstruction Paleontological Evaluation for Projects located in Class 3 (Moderate) Sensitivity Areas. Therefore, the proposed project or residential variant would not result in a significant impact through the elimination of important examples of major periods of California history or prehistory.

- b) The proposed project or residential variant, in combination with cumulative projects, as described in Section E, *Evaluation of Environmental Effects*, p. 46, of this initial study, would not result in significant cumulative impacts on land use and planning, population and housing, cultural resources, tribal cultural resources, transportation and circulation, noise, air quality, GHG emissions, wind, shadow, recreation, utilities and service systems, public services, biological resources, geology and soils, hydrology and water quality, hazards and hazardous materials, mineral resources, energy resources, agricultural and forest resources, and wildfire with implementation of identified mitigation, if required. Consequently, the proposed project or residential variant would not have impacts that are individually limited, but cumulatively considerable.
- c) Potential adverse effects on human beings have been considered as a part of the analysis of individual environmental topics in this initial study. As discussed above, the proposed project or residential variant is anticipated to have less-than-significant impacts on most of the environmental topics discussed. Where necessary, mitigation measures have been identified to reduce impacts to less-than-significant levels. Consequently, the proposed project or residential variant would not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

As described in Section E.7, *Noise*, p. 91, the proposed project or residential variant would result in temporary groundborne vibration impacts on adjacent buildings at 423 Washington Street and 447 Battery Street. Section E.3, *Cultural Resources*, p. 51, also identifies a potentially significant impact on 447 Battery Street related to groundborne vibration levels exceeding the Caltrans criterion for historic structures. This impact would be less than significant with implementation of Mitigation Measure M-NO-3, Protection of Adjacent Buildings/Structures and Vibration Monitoring During Construction. As described in Section E.7, *Air Quality*, p. 91, the proposed project or residential variant would result in potentially significant impacts related to health risk. These impacts would be less than significant with implementation of Mitigation Measure M-AQ-4a, Off-Road Construction Equipment Emissions Minimization and Mitigation Measure M-AQ-4b, Diesel Backup Generator Specifications. Therefore, the proposed project or residential variant would not cause substantial adverse effects on human beings, either directly or indirectly, with the implementation of the mitigation measures.

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## F. Mitigation Measures

The following mitigation measures have been identified in this initial study to reduce potentially significant impacts resulting from the proposed project or residential variant to less-than-significant levels. The project sponsor has agreed to implement all mitigation measures identified in the initial study.

### **Mitigation Measure M-CR-1: Interpretation and Relocation Plan**

***Interpretation for Untitled Sculpture.*** The project sponsor shall facilitate the development of an interpretive program focused on the history and design of the *Untitled* sculpture. The interpretive program shall be developed and implemented by a qualified professional with demonstrated experience in displaying information and graphics to the public, such as a museum or exhibit curator. The primary goal of the program is to educate the public about the sculpture, the work of

artist Henri Marie-Rose, and the historical association of the sculpture with the Embarcadero Center and Fire Station 13.

This program shall be initially outlined in a proposal for an Historic Resources Public Interpretive Plan (HRPIP) subject to review and approval by planning department preservation staff. The HRPIP shall lay out the various components of the interpretive program that shall be developed in consultation with an architectural historian who meets the Secretary of the Interior's Professional Qualification Standards and approved by planning department staff prior to issuance of a site permit or demolition permit.

The interpretative program shall include the installation of a permanent on-site interpretive display. All interpretative material shall be publicly available. For physical interpretation the plan shall include the proposed format and accessible location of the interpretive content, as well as high-quality graphics and written narratives. The interpretative plan may also explore contributing to digital platforms that are publicly accessible, such as the History Pin website or phone applications. Interpretive material could include elements such as virtual museums and content, such as oral history, brochures, and websites. The interpretative program should also coordinate with other interpretative programs currently proposed or installed in the vicinity or for similar resources in the city, such as the San Francisco Fire Department Museum.

The HRPIP shall be approved by planning department preservation staff prior to issuance of the architectural addendum to the site permit. The detailed content, media and other characteristics of such interpretive program shall be approved by planning department preservation staff prior to issuance of a temporary certificate of occupancy.

***Relocation Plan for Untitled Sculpture.*** Prior to issuance of the architectural addendum to the site permit, the project sponsor shall provide a relocation plan to be reviewed and approved by the planning department to ensure that the sculpture will be removed from the building, transported, and stored during construction in a manner that will protect the historical resource. The relocation plan shall identify the storage location for the sculpture and storage and monitoring protocols. The sculpture shall be relocated to the exterior of the new fire station portion of the project, either along its north (Washington Street) or south (Merchant Street) façades; or, if approved by planning department preservation staff, to another prominent publicly accessible location on the project site. The relocation plan shall also include an initial reinstallation plan and maintenance plan for the sculpture and schedule for reviewing and finalizing those plans in consultation with planning department preservation staff prior to issuance of temporary certificate of occupancy.

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### **Mitigation Measure M-CR-3: Archeological Testing**

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 proposed project on buried or submerged historical resources and on human remains and associated or unassociated funerary objects. The project sponsor shall retain the services of an archeological consultant from the rotational qualified archeological consultants list maintained by the planning department's archeologist who specializes in geoarchaeology and maritime resources. After the first project approval action or as directed by the Environmental Review Officer, the project

sponsor shall contact the department archeologist to obtain the names and contact information for the next three archeological consultants on the qualified archeological consultants list.

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. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the Environmental Review Officer, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means for reducing potential effects on a significant archeological resource, as defined in CEQA Guidelines sections 15064.5 (a) and (c) to a less-than-significant level.

**Consultation with Descendant Communities.** On discovery of an archeological site associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group an appropriate representative of the descendant group and the Environmental Review Officer shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the Environmental Review Officer regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the final archeological resources report shall be provided to the representative of the descendant group.

**Archeological Testing Program.** The archeological consultant shall prepare and submit to the Environmental Review Officer for review and approval an archeological testing plan. The archeological testing program shall be conducted in accordance with the approved archeological testing plan.

Testing shall include monitoring of basement demolition, trenching from the base of basement to 20 feet for historical resources and coring to Old Bay Clay to test for submerged resources.

The archeological testing plan shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an 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 Environmental Review Officer. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the Environmental Review Officer in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include preservation in place, 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 Environmental Review Officer or the planning department archeologist.

If the Environmental Review Officer determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, the Environmental Review Officer, in consultation with the project sponsor shall determine whether preservation of the resource in place is feasible. If so, the proposed project shall be redesigned so as to avoid any adverse effect on the significant archeological resource. If preservation in place is not feasible, a data recovery program shall be implemented, unless the Environmental Review Officer determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

***Archeological Monitoring Program.*** If the Environmental Review Officer in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented the archeological monitoring program shall include, at a minimum, the following provisions:

- The archeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archeological monitoring program reasonably prior to any project-related soils disturbing activities commencing. The Environmental Review Officer in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archeological resources and to their depositional context;
- The archeological consultant shall undertake a worker training program for soil-disturbing workers that will include an overview of 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 according to a schedule agreed upon by the archeological consultant and the Environmental Review Officer until the Environmental Review Officer 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, irrespective of whether an archeologist is present, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. The archeological consultant shall immediately notify the Environmental Review Officer 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 Environmental Review Officer.

Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the Environmental Review Officer.

**Archeological Data Recovery Program.** The archeological data recovery program shall be conducted in accord with an archeological data recovery plan. The archeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archeological data recovery plan prior to preparation of a draft archeological data recovery plan. The archeological consultant shall submit a draft archeological data recovery plan to the Environmental Review Officer. The archeological data recovery plan shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the archeological data recovery plan will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.

The scope of the archeological data recovery plan shall include the following elements:

- Field Methods and Procedures. Descriptions of proposed field strategies, procedures, and operations.
- Cataloguing and Laboratory Analysis. Description of selected cataloguing system and artifact analysis procedures.
- Discard and Deaccession Policy. Description of and rationale for field and post-field discard and deaccession policies.
- Interpretive Program. Consideration of an on-site/off-site public interpretive program during the course of the 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 Associated or Unassociated Funerary Objects.** The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and federal laws. This shall include immediate notification of the Office of the Chief Medical Examiner of the City and County of San Francisco and, in the event of the medical examiner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission, which will appoint a most likely descendant. The most likely descendant will complete his or her inspection of the remains and make recommendations or preferences for treatment within 48 hours of being granted access to the site (Public Resources Code section 5097.98). The Environmental Review Officer also shall be notified immediately upon the discovery of human remains.

The project sponsor and Environmental Review Officer shall make all reasonable efforts to develop a Burial Agreement (“Agreement”) with the most likely descendant, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and associated or unassociated funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). The Agreement shall take into consideration the appropriate excavation, removal, recordation, scientific analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. If the most likely descendant agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archeological consultant shall retain possession of the remains and associated or unassociated funerary objects until completion of any such analyses, after which the remains and associated or unassociated funerary objects shall be reinterred or curated as specified in the Agreement.

Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the Environmental Review Officer to accept treatment recommendations of the most likely descendant. However, if the Environmental Review Officer, project sponsor and most likely descendant are unable to reach an Agreement on scientific treatment of the remains and associated or unassociated funerary objects, the Environmental Review Officer, with cooperation of the project sponsor, shall ensure that the remains and/or mortuary materials are stored securely and respectfully until they can be reinterred on the property, with appropriate dignity, in a location not subject to further or future subsurface disturbance.

Treatment of historic-period human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity, additionally, shall follow protocols laid out in the project’s archeological treatment documents, and in any related agreement established between the project sponsor, medical examiner and the Environmental Review Officer.

***Final Archeological Resources Report.*** The archeological consultant shall submit a final archeological resources report to the Environmental Review Officer 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. The final archeological resources report shall include a curation and deaccession plan for all recovered cultural materials. The final archeological resources report shall also include an Interpretation Plan for public interpretation of all significant archeological features.

Copies of the final archeological resources report shall be sent to the Environmental Review Officer for review and approval. Once approved by the Environmental Review Officer, the consultant shall also prepare a public distribution version of the final archeological resources report. Copies of the final archeological resources report shall be distributed as follows: California Archeological Site Survey Northwest Information Center shall receive one (1) copy and the Environmental Review Officer shall receive a copy of the transmittal of the final archeological resources report to the Northwest Information Center. The Environmental Planning Division of the planning department shall receive one bound and one unlocked, searchable PDF copy on CD of the final archeological resources report along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of public interest in or the high interpretive value of the resource, the Environmental Review Officer may require a different or additional final report content, format, and distribution than that presented above.

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### **Mitigation Measure M-TCR-1: Tribal Cultural Resources Archeological Resource Preservation Plan and/or Interpretive Program**

In the event of the discovery of an archeological resource of Native American origin, the Environmental Review Officer, the project sponsor, and the tribal representative, shall consult to determine whether preservation in place would be feasible and effective. If it is determined that preservation-in-place of the tribal cultural resource would be both feasible and effective, then the archeological consultant shall prepare an archeological resource preservation plan, which shall be implemented by the project sponsor during construction. If the ERO in consultation with the project sponsor and the tribal representative determines that preservation-in-place of the TCR is not a sufficient or feasible option, then archeological data recovery shall be implemented as required by the ERO in consultation with the tribal representative. In addition, the project sponsor shall prepare an interpretive program of the TCR in consultation with affiliated Native American tribal representatives. The plan shall identify 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, cultural displays and interpretation, and educational panels or other informational displays. Upon approval by the ERO and the tribal representative, and prior to project occupancy, the interpretive program shall be implemented by the project sponsor.

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### **Mitigation Measure M-NO-3: Protection of Adjacent Buildings/Structures and Vibration Monitoring during Construction**

Prior to issuance of any demolition or building permit, the project sponsor shall submit a project-specific Pre-construction Survey and Vibration Management and Monitoring Plan to the Environmental Review Officer (ERO) or the ERO's designee for approval. The plan shall identify all feasible means to avoid damage to potentially affected buildings, which are 423 Washington Street and 447 Battery Street. Should demolition on the building at 447 Battery Street occur, this measure is no longer applicable to that structure; however, to the extent a new structure exists or is under construction at 447 Battery Street, the Pre-construction Survey and Vibration Management and Monitoring Plan shall meet the requirements of this mitigation measure for non-historic buildings to avoid damage to such new structure. The project sponsor shall ensure that the following requirements of the Pre-Construction Survey and Vibration Management and Monitoring Plan are included in contract specifications, as necessary.

- **Pre-construction Survey.** Prior to the start of any ground-disturbing activity, the project sponsor shall engage a consultant to undertake a pre-construction survey of the potentially affected historic building at 447 Battery Street and the non-historic building 423 Washington Street. The project sponsor shall engage a structural engineer or other professional with similar qualifications to undertake a pre-construction survey of both buildings, provided that if the historic building at 447 Battery Street has not been demolished, then the project sponsor shall engage a historic architect or qualified historic preservation professional to undertake (in coordination with the structural engineer) the pre-construction survey of 447 Battery Street. If the historic building at 447 Battery Street has not been demolished, the pre-construction survey

shall include descriptions and photograph of 447 Battery Street, including all facades, roofs, and details of the character-defining features that could be damaged during construction, and shall document existing damage such as cracks and loose or damaged features (as allowed by the property owner). The report shall also include pre-construction drawings that record the pre-construction condition of the buildings and identify cracks and other features to be monitored during construction. If the historic building at 447 Battery Street has not been demolished, the historic architect or qualified historic preservation professional shall be the lead author of the pre-construction survey for 447 Battery Street. These reports shall be submitted to the ERO and planning department preservation staff for review and approval prior to the start of vibration-generating construction activity.

- **Vibration Management and Monitoring Plan.** The project sponsor shall undertake a monitoring plan to avoid or reduce project-related construction vibration damage to the adjacent buildings and/or structures at 447 Battery Street and 423 Washington Street to ensure that any such damage is documented and repaired. Prior to issuance of any demolition or building permit, the project sponsor shall submit the Vibration Management and Monitoring Plan that lays out the monitoring program to the ERO for approval. If the historic building at 447 Battery Street has not been demolished, the Vibration Management and Monitoring Plan shall also be submitted to planning department preservation staff for review and approval.

The Vibration Management and Monitoring Plan shall include, at a minimum, the following components, as applicable:

- *Maximum Vibration Level.* Based on the anticipated construction and condition of the affected buildings and/or structures, a qualified acoustical/vibration consultant in coordination with a structural engineer (or professional with similar qualifications) and, in the case the historic building at 447 Battery Street has not been demolished, a historic architect or qualified historic preservation professional, shall establish a maximum vibration level that shall not be exceeded based on existing conditions, soil conditions, anticipated construction practices, and in the event the historic building at 447 Battery Street has not been demolished, character-defining features of that building (common standards are a peak particle velocity [PPV] of 0.25 inch per second for historic and some old buildings, a peak particle velocity [PPV] of 0.3 inch per second for older residential structures, and a peak particle velocity [PPV] of 0.5 inch per second for new residential structures and modern industrial/commercial buildings).
- *Vibration-Generating Equipment.* The plan shall identify all vibration-generating equipment to be used during construction (including, but not limited to site preparation, clearing, demolition, excavation, shoring, foundation installation, and building construction).
- *Alternative Construction Equipment and Techniques.* Should construction vibration levels be observed in excess of the established standard, the contractor(s) shall halt construction and put alternative construction techniques into practice, to the extent feasible (e.g., non-vibratory compaction equipment). Following incorporation of the alternative construction techniques, vibration monitoring shall recommence to ensure that vibration levels at each affected building and/or structure on adjacent properties are not exceeded.
- *Vibration Monitoring.* The plan shall identify the method and equipment for vibration monitoring. To ensure that construction vibration levels do not exceed the established standard, the acoustical/vibration consultant shall monitor vibration levels at each affected

building and/or structure on adjacent properties (as allowed by property owners) and prohibit vibratory construction activities that generate vibration levels in excess of the standard.

- Should construction vibration levels be observed in excess of the standards established in the plan, the contractor(s) shall halt construction and put alternative construction techniques identified in the plan into practice, to the extent feasible.
  - The historic architect or qualified historic preservation professional (for effects on the historic building at 447 Battery Street if it has not been demolished) and/or structural engineer shall inspect each affected building and/or structure (as allowed by property owners) in the event the construction activities exceed the established standards.
  - If vibration has damaged nearby buildings and/or structures that are not historic, the structural engineer shall immediately notify the ERO and prepare a damage report documenting the features of the building and/or structure that has been damaged.
  - If vibration has damaged the historic building at 447 Battery Street, the historic preservation consultant shall immediately notify the ERO or the ERO's designee and preservation staff and prepare a damage report documenting the features of the building and/or structure that has been damaged.
  - If no damage has occurred to the buildings at 447 Battery Street and Washington Street, then the historic preservation professional (if the historic building at 447 Battery Street has not been demolished) and/or structural engineer shall submit a monthly report to the ERO (and preservation staff, if needed) for review. This report shall identify and summarize the vibration level exceedances and describe the actions taken to reduce vibration.
  - Following incorporation of the alternative construction techniques and/or planning department review of the damage report, vibration monitoring shall recommence to ensure that vibration levels at 447 Battery Street and 423 Washington Street are not exceeded.
- *Periodic Inspections.* The plan shall identify the intervals and parties responsible for periodic inspections. The historic architect or qualified historic preservation professional (if the historic building at 447 Battery Street has not been demolished) and/or structural engineer shall conduct regular periodic inspections of each building and/or structure (as allowed by property owners) during vibration-generating construction activity on the project site. The plan will specify how often inspections and reporting shall occur.
  - *Repair Damage.* The plan shall also identify provisions to be followed should damage to any building and/or structure occur due to construction-related vibration. The building(s) and/or structure(s) shall be remediated to their pre-construction condition (as allowed by property owners) at the conclusion of vibration-generating activity on the site. Should damage occur at the historic building at 447 Battery Street, the building and/or structure shall be restored to its pre-construction condition in consultation with the historic architect or qualified historic preservation professions and planning department preservation staff.
  - *Vibration Monitoring Results Report.* After construction is complete the project sponsor shall submit a final report from the historic architect or qualified historic preservation

professional (if the historic building at 447 Battery Street has not been demolished) and/or structural engineer to the planning department. The report shall include, at a minimum, collected monitoring records, building and/or structure condition summaries, descriptions of all instances of vibration level exceedance, identification of damage incurred due to vibration, and corrective actions taken to restore damaged buildings and structures. The planning department shall review and approve the Vibration Monitoring Results Report.

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#### **Mitigation Measure M-AQ-4a: Off-Road Construction Equipment Emissions Minimization**

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 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed U.S. Environmental Protection Agency (EPA) Tier 4 Interim or Tier 4 Final off-road emission standards.
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 project sponsor 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 project sponsor 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 project sponsor 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 the project sponsor demonstrates that use of the alternative equipment would not result in a cancer risk from project construction and operation that exceeds 7 per one million exposed and annual average PM<sub>2.5</sub> concentrations that exceed 0.2 µg/m<sup>3</sup>.

**C. Construction Emissions Minimization Plan.** Before starting on-site construction activities, the project sponsor shall submit a Construction Emissions Minimization Plan (plan) to the ERO for

review and approval. The Plan shall state, in reasonable detail, how the project sponsor 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. As reasonably available, 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 use and hours of operation. For any VDECS installed, the description may include: technology type, serial number, make, model, manufacturer, air board verification number level, and installation date and hour meter reading on installation date.
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 project sponsor agrees to comply fully with the Plan.
3. The project sponsor shall make the plan available to the public for review onsite during working hours. The project sponsor 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 project sponsor 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 project sponsor 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.

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#### **Mitigation Measure M-AQ-4b: Diesel Backup Generator Specifications**

The project sponsor shall ensure that the proposed diesel backup generators meet or exceed California Air Resources Board Tier 4 off-road emission standards. Additionally, once operational, the diesel backup generators shall be maintained in good working order for the life of the equipment and any future replacement of the diesel backup generators shall be required to be consistent with these emissions specifications. The operator of the facility at which the generators are located shall maintain records of the testing schedule for the diesel backup generators for the life of those diesel backup generators and to provide this information for review to the planning department within three months of requesting such information.

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#### **Mitigation Measure M-GE-5a: Worker Environmental Awareness Training during Ground-Disturbing Construction Activities**

Prior to commencing construction, and ongoing throughout ground disturbing activities (e.g., excavation, utility installation, the property owner or their designee (herein referred as property owner) shall ensure that all project construction workers are trained on the contents of the Paleontological Resources Alert Sheet, as provided by the environmental review officer (ERO). The



Paleontological Resources Alert Sheet shall be prominently displayed at the construction site, during ground disturbing activities, to provide pre-construction worker environmental awareness training regarding potential paleontological resources.

In addition, the property owner shall inform construction personnel of the immediate stop work procedures and other procedures to be followed if bones or other potential fossils are unearthed at the project site. As new workers that will be involved in ground disturbing activities arrive at the project site, the construction supervisor shall train them.

The property owner shall submit in writing (email, letter, memo) the timing of the worker training to the ERO. The letter shall confirm the project's location, the date of training, the location of the informational handout display, and the number of participants. The letter shall be transmitted to the ERO within 5 business days of conducting the training.

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### **Mitigation Measure M-GE-5b: Discovery of Unanticipated Paleontological Resources during Ground-Disturbing Construction Activities**

In the event of the discovery of an unanticipated paleontological resource during construction, ground disturbing activities shall temporarily be halted within 20 feet of the find until the discovery is examined by a qualified paleontologist as recommended by the Society of Vertebrate Paleontology standards (SVP 2010) and Best Practices in Mitigation Paleontology (Murphey et al. 2019). Work within the sensitive area shall resume only when deemed appropriate by the qualified paleontologist in consultation with the ERO.

The qualified paleontologist shall determine: (1) if the discovery is scientifically significant; (2) the necessity for involving other responsible or resource agencies and stakeholders, if required or determined applicable; and (3) methods for resource recovery. If a paleontological resource assessment results in a determination that the resource is not scientifically important, this conclusion shall be documented in a Paleontological Evaluation Letter to demonstrate compliance with applicable statutory requirements (e.g., Federal Antiquities Act of 1906, CEQA Guidelines section 15064.5, California Public Resources Code chapter 17, section 5097.5, Paleontological Resources Preservation Act 2009). The Paleontological Evaluation Letter shall be submitted to the ERO for review within 30 days of the discovery.

If the qualified paleontologist determines that a paleontological resource is of scientific importance, and there are no feasible measures to avoid disturbing this paleontological resource, the qualified paleontologist shall prepare a Paleontological Impact Reduction Program (impact reduction program). The impact reduction program shall include measures to fully document and recover the resource of scientific importance. The qualified paleontologist shall submit the impact reduction program to the ERO for review and approval. The impact reduction program shall be submitted to the ERO for review within 10 business days of the discovery. Upon approval by the ERO, ground disturbing activities in the project area shall resume and be monitored as determined by the qualified paleontologist for the duration of such activities.

The impact reduction program shall include: (1) procedures for construction monitoring at the project site; (2) fossil preparation and identification procedures; (3) curation of paleontological

resources of scientific importance into an appropriate repository; and (4) preparation of a Paleontological Resources Report (report or paleontology report) at the conclusion of ground disturbing activities. The report shall include dates of field work, results of monitoring, fossil identifications to the lowest possible taxonomic level, analysis of the fossil collection, a discussion of the scientific significance of the fossil collection, conclusions, locality forms, an itemized list of specimens, and a repository receipt from the curation facility. The property owner shall be responsible for the preparation and implementation of the impact reduction program, in addition to any costs necessary to prepare and identify collected fossils, and for any curation fees charged by the paleontological repository. The paleontology report shall be submitted to the ERO for review within 30 business days from conclusion of ground disturbing activities, or as negotiated following consultation with the ERO.

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### **Mitigation Measure M-GE-5c: Preconstruction Paleontological Evaluation for Projects located in Class 3 (Moderate) Sensitivity Areas**

The project site is located in San Francisco in Moderate Sensitivity Area (Class 3), which require ground disturbance activities deeper than 5 feet and would include the removal of more than 2,500 cubic yards of soil. The property owner shall engage a qualified paleontologist to complete a site-specific Preconstruction Paleontological Resources Evaluation (paleontology preconstruction evaluation) prior to commencing soil-disturbing activities occurring on the project site, for projects located in moderate sensitivity zones. Prior to issuance of any demolition or building permit, the property owner shall submit the Preconstruction Paleontological Evaluation to the ERO for approval.

The purpose of the site-specific preconstruction evaluation is to identify early the potential presence of significant paleontological resources on the project site. At a minimum, the study shall include:

1. Project Description
2. Regulatory Environment – outline applicable federal, state and local regulations
3. Summary of Sensitivity Classification
4. Research Methods, including but not limited to:
  - 4.1. Field studies conducted by the approved paleontologist to check for fossils at the surface and assess the exposed sediments.
  - 4.2. Literature Review to include an examination of geologic maps and a review of relevant geological and paleontological literature to determine the nature of geologic units in the project area.
  - 4.3. Locality Search to include outreach to the University of California Museum of Paleontology in Berkeley.
5. Results: to include a summary of literature review and finding of potential site sensitivity for paleontological resources; and depth of potential resources if known.
6. Recommendations for any additional measures that could be necessary to avoid or reduce any adverse impacts to recorded and/or inadvertently discovered paleontological resources of scientific importance, in addition to paleontology standard requirements for Worker

Environmental Awareness Training during Construction (M-GE-4a) and Discovery of Unanticipated Paleontological Resources during Construction (M-GE-4b). Such measures could include:

- 6.1. Avoidance: If the cost of fossil recovery or other impact reduction options is determined to be too high, or permanent damage to the resource caused by surface disturbance is considered to be unavoidable, given the proposed construction, it may be necessary to “avoid” or “reroute” the portion of the project that intersects the fossil locality in order to prevent adverse impacts on the resource. Avoidance should also be considered if a known fossil locality appears to contain critical scientific information that should be left undisturbed for subsequent scientific evaluation. Avoidance for later scientific research is the typical mitigation recommendation made for scientifically significant extensive paleontological discoveries.
- 6.2. Fossil Recovery: If isolated small, medium- or large-sized fossils are discovered within a project area during field surveys or construction monitoring, and they are determined to be scientifically significant, they should be recovered. Fossil recovery may involve simply collecting a fully exposed fossil from the ground surface, or may involve a systematic excavation, depending upon the size and complexity of the fossil discovery. Fossil excavations should be designed in such a way as to minimize construction delays while properly collecting the fossil and associated data according to professional paleontological standards.
- 6.3. Sampling: Scientifically significant microfossils (vertebrate, invertebrate, plant, or trace fossils) may be identified in rock matrix during surveys or monitoring, or, if they are known to occur elsewhere in the same geologic unit or type of deposit in the general area, a determination of their presence or absence may require the use of test sampling of rock matrix for screen-washing in a paleontological laboratory. In some cases, depending upon the geologic unit involved, test sampling may be appropriate even if microfossils are not visible in the field. The fossils found, if any, will then be inspected and evaluated to determine their significance and whether additional steps are necessary to reduce paleontological impacts. Such steps may include collection of additional matrix for screen-washing. The decision to sample may not be made until monitoring is occurring, because it is usually triggered by conditions in the field.
- 6.4. Monitoring: If scientifically important paleontological resources are known to be present in an area, or if there is a moderate or high likelihood that subsurface fossils are present in geologic units or members thereof within a given project area based on prior field surveys, museum records, or scientific or technical literature, paleontological monitoring of construction excavations would be required. Monitoring involves systematic inspections of graded cut slopes, trench sidewalls, spoils piles, and other types of construction excavations for the presence of fossils, and the fossil recovery and documentation of these fossils before they are destroyed by further ground disturbing actions. Standard monitoring is typically used in the most paleontologically sensitive geographic areas/geologic units (moderate, high and very high potential); while spot-check monitoring is typically used in geographic areas/geologic units of moderate or unknown paleontological sensitivity (moderate or unknown potential). The goal of monitoring is to identify scientifically significant subsurface fossils as soon as they are unearthed in order to minimize damage to them and remove them and associated contextual data from the area of ground disturbance, thereby resulting in

subsurface paleontological clearance. Microfossil sampling, macrofossil recovery, and avoidance of fossils may all occur during any monitoring program.

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## **G.1 Public Notice and Comment**

On November 19, 2020 the planning department mailed a Notification of Project Receiving Environmental Review to owners and occupants within 300 feet of the project site, neighborhood groups for the project vicinity, and public agencies. The planning department received three comment letters expressing concerns about:

- Number of vehicle and bike parking spaces under the residential variant;
- Shadow;
- Water supply; and
- Temporary relocation of Fire Station 13 during construction and community safety.

These concerns were incorporated into the environmental review of the proposed project and residential variant and addressed in Section D.2, *Aesthetics and Parking Analysis*, p. 45; Section E.15, *Geology and Soils*, p. 157; Section E.10, *Shadow*, p. 134; Section E.12, *Utilities and Service Systems*, p. 142; and Section E.13, *Public Services*, p. 150.

## **G.2 Notice of Intent to Adopt a Mitigated Negative Declaration**

On April 28, 2021, the planning department circulated a Notice of Availability and Intent to Adopt a Mitigated Negative Declaration. The notice was circulated to interested organizations and individuals, property owners and residents within 300 feet of the project site, and published in a newspaper of general circulation. Notices were also posted at multiple locations around the project site on Washington, Sansome and Merchant streets. The planning department received one question asking to confirm the total height of the proposed building, but no comments during the 20-day comment period (April 28 to May 18, 2021). On May 20, 2021, after the close of the 20-day public comment period, the planning department received a comment letter on the preliminary mitigated negative declaration from a local labor organization voicing concerns about the project's impacts related to transportation and circulation, wind, shadow, and recreation.

As to transportation and circulation, the letter expressed concern about potential conflicts between project freight loading and operation of emergency vehicles at the replacement fire station, the viability of both freight and passenger loading, and the relationship between loading activities and the proposed POPOS on Merchant Street. As described in the project description on pages 17 and 22, the proposed project or residential variant would provide an off-street freight loading dock accessible from Washington Street and two additional freight loading/service vehicle spaces in the basement accessible from Merchant Street.

As to potential conflicts between emergency vehicles and freight loading, trucks arriving at the Washington Street loading dock would pull past the dock and back into the dock. As explained on page 82 and presented in Appendix G to the 530 Sansome Street Transportation Study, "these truck movements could be accommodated within Washington Street and would not interfere with fire department vehicles exiting the fire station on Washington Street. Furthermore, a gate arm or other traffic control feature at this loading dock

would restrict commercial vehicle egress from the loading dock during a fire department departure event.” The letter also expresses concern about commercial delivery vehicles attempting to enter the loading dock when fire trucks are exiting the fire station. Should this occur, the delivery vehicle would comply state law requiring vehicles to move over, and would wait for the fire truck to exit the station and pass the delivery vehicle before attempting to enter the loading dock. Accordingly, neither the proposed project nor residential variant’s freight loading would result in conflicts with or obstruct fire department emergency response, and no significant effects would occur.

As to the viability of freight and passenger loading, including potential interactions with the proposed POPOS programming on Merchant Street, analysis supports that proposed freight and passenger loading would adequately serve the proposed uses without creating potentially hazardous conditions for other roadway users, including people walking, bicycling, and driving. As addressed under Impact TR-6 on page 82, most project freight loading activity for the hotel and retail uses would entail the use of relatively smaller trucks and other vehicles that could be accommodated within the proposed two service vehicle loading spaces accessible from Merchant Street. As also discussed on page 82, vehicles longer than 30 feet are expected to serve the project site once or twice a day under the proposed project. Vehicles longer than 30 feet are expected occasionally for the residential variant for move-in/move-out activities (Impact TR-6 on page 84). For both the proposed project and residential variant, vehicles longer than 30 feet would be able to load at convenient loading zones on adjacent streets, such as at the yellow loading zones on the west side of Sansome Street, south of Merchant Street. As further discussed under Impact TR-6 on pages 82 to 84, the implementation of a driveway loading and operations plan would help further ensure that freight loading activities generated by the proposed project or residential variant do not introduce potentially hazardous conditions for other roadway users. The driveway loading and operations plan would be imposed as a condition of approval for the proposed project or residential variant, implemented by the project sponsors or building operator, and enforced by the Planning Department in coordination with SFMTA and San Francisco Public Works.

Passenger loading is addressed under Impact TR-6 on pages 83 to 84. The comment letter asserts that methodology for studying hotels is out of date and regularly underestimates the intensity of hotel uses, citing conferences that generate intensified activity of tour buses and demand on transit. As an initial matter, the proposed project’s hotel may host small conferences of up to 100 people in the approximately 5,000 gross square feet of the hotel designed for flexible meeting space, and this number of users would be comparatively small to conference-oriented hotels with large ballrooms and meeting rooms. Hotel conference activity is therefore not anticipated to generate a substantial number of trips and any related increase in trips would be of a short duration. Further, the comment letter incorrectly states that the trip generation rates used for assessing loading demand for the proposed hotel date to 2012. Instead, the 530 Sansome Street Transportation Study and this MND use trip generation rates from the 2019 SF Guidelines, which account for recent increases in the number of vehicles operated by transportation network companies such as Uber and Lyft. As stated on page 83, the peak loading demand from 5 p.m. to 8 p.m. is based on the 2019 SF Guidelines and methodology. The proposed project or residential variant would provide an approximately 100-foot-long (approximately five spaces) passenger loading zone on Sansome Street and an approximately 40-foot-long p.m. peak traffic period (3 p.m. to 7 p.m.) passenger loading zone (approximately two spaces) on Merchant Street. Both of these loading zones would be served by curbside valet stations where valet drivers would shuttle cars to and from the loading zones and the off-street parking facility accessible from Merchant Street. Analysis of the proposed project and residential variant supports that these zones would adequately accommodate the proposed project or residential variant’s passenger loading demand.

Regarding potential freight and passenger loading activity interaction with the proposed POPOS programming on Merchant Street, the comment letter incorrectly refers to the Merchant Street POPOS programming hours as 3 p.m. to 7 p.m. Instead, the Merchant Street POPOS would function as a shared street/living alley and its programming would not necessarily be limited to certain hours each day. The period of 3 p.m. to 7 p.m. represents the p.m. peak traffic period and the period when the proposed Sansome Street on-street passenger loading zone would be unavailable due to existing peak hour tow-away restrictions. During this p.m. peak period, the proposed passenger loading zone within the Merchant Street POPOS would be made available for passenger loading activity. As stated in footnote 75 on page 83, the passenger loading zone within the Merchant Street POPOS would be “programmed with movable furniture during typical business hours,” which would allow the passenger loading zone to be programmed for pedestrian uses when not used for p.m. peak period passenger loading. In addition, the comment letter incorrectly states that the POPOS programming proposes to entirely prohibit service vehicles from going through Merchant Street. Instead, although the POPOS programming would slow and may limit the volume of through vehicle traffic on Merchant Street, it would not completely prohibit vehicles, including those generated by the project and by cumulative projects, from going through Merchant Street. Accordingly, and for the reasons further set forth in Section E.6, the proposed project or residential variant’s potential loading impacts would be less than significant.

Regarding wind, the comment letter states that the project would worsen existing wind comfort conditions, asks about wind-related adverse health effects on pedestrians, and asks what would happen in the cumulative project scenario were the designs of the projects at 447 Battery Street and 545 Sansome Street to change. Regarding comfort criteria, the approach to the wind analysis on page 131 specifies that the results of the wind analysis related to the planning code section 148 comfort criteria are presented solely for informational purposes (as they relate to the planning code section 309). These results are not relevant to CEQA nor related to the determination of significant wind impacts under CEQA. Instead, the CEQA significance criterion for wind is whether a project would meet or exceed the wind hazard speed for a single hour of the year. Where the wind hazard speed would be exceeded, a significant impact would normally result if either the total number of hours during which the hazard criterion is exceeded or the total number of locations where exceedances would occur would increase. The comment letter notes that the wind hazard criterion would be exceeded at ten test points; however, as discussed under Impact WI-1 on pages 132 and 133, this would represent a reduction in wind hazard criterion exceedances from 12 to 10 test points and, further, the total hours exceeding the hazard criterion would be reduced from 249 to 138. This is an improvement in wind hazard conditions compared to existing conditions, and therefore the impact would be less than significant.

As discussed under Impact C-WI-1 on page 133, the cumulative scenario would result in a net increase of two test points exceeding the wind hazard criterion. However, as stated on page 133, the pedestrian wind study prepared for the proposed project and residential variant concluded that the increase in the number of total hours and locations exceeding the hazard criterion would primarily be caused by the proposed project at 545 Sansome Street, which would be developed upwind of the 530 Sansome Street project site. As described further on page 134, the proposed project or residential variant would eliminate wind hazard exceedances at two test points (points 10 and 12) where winds exceed the hazard criterion under existing conditions. With cumulative development, the wind hazard exceedances would reappear at test points 10 and 12; therefore, the proposed project or residential project would not contribute considerably to the cumulative impact. Should the design of any of the cumulative projects substantially change, the planning department would require updated wind analysis of such project designs under environmental review conducted for those cumulative projects. Accordingly, cumulative wind effects of the proposed project or residential variant would be less than significant.

With respect to shadow, the comment letter states concern about shadow on Maritime Plaza and that the preliminary mitigated negative declaration is not in the “spirit of the Shadow Ordinance.” San Francisco does not have a “Shadow Ordinance” but rather San Francisco Planning Code section 295 is also known as the “Sunlight Ordinance.” As addressed under Impact SH-1 on pages 134 and 135, compliance with section 295 occurs independent of the CEQA process and the proposed project or residential variant would comply with section 295 as part of project approval. Additionally, analysis conducted under section 295 for the proposed project or residential variant includes quantification of shadow impacts for Maritime Plaza and Sue Bierman Park, the impact determination under CEQA is based on qualitative criteria adopted by the San Francisco Recreation and Parks Commission and the planning department. The qualitative criteria include the time of day and time of year when shadow would be cast, the size, duration, and location of the new shadow, and the types of activities that occur in the affected areas of the park. The comment letter misstates that existing trees in Sue Bierman Park are used to justify a less-than-significant shadow impact. As discussed on pages 137 through 138, park users would not likely notice new shadow due to the time of day, the existing amount of shadow, and the limited increase and duration of new shadow and that this would be unlikely to substantially or adversely affect usage of the park.

Concerning recreation, the comment letter questions whether the proposed open space would adequately serve the residential variant or whether there could be an increase in use of nearby recreational facilities. The residential variant’s open space requirements are addressed on page 41. Planning code section 135 requires either 36 square feet of private open space per dwelling unit or 1.33 times the amount of private open space required as common open space (48 square feet). The residential variant would be required to provide 9,216 square feet of private open space, 12,288 square feet of common open space, or a combination thereof. The comment letter incorrectly indicates that the only residential open space proposed by the residential variant would be in the solarium on the building’s 21st floor. The residential variant would provide 36 square feet of private open space for 123 dwelling units totaling 4,428 square feet, in addition to the 6,384 square feet of common open space proposed on the 21st floor, for a total of 10,812 square feet of open space. This would meet the planning code open space requirements. As addressed under Impact RE-1 on page 141, the open space provided at the project site would partially offset demand for open space, and demand for existing parks and recreation facilities would be expected to be balanced among existing recreational facilities. The residential variant would not increase the use of existing recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. Accordingly, the effects on recreational facilities to be less than significant.

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## H. Determination

On the basis of this Initial Study:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

*Lisa Gibson*

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Lisa Gibson  
Environmental Review Officer  
for  
Rich Hillis  
Director of Planning

DATE 4/28/2021

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