San Francisco Planning

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Mitigated Negative Declaration

Date:	**July 28, 2021**; amended on September 24, 2021 (amendments to the initial study are shown as deletions in ~~strikethrough~~ and additions in double underline)
Case No.:	**2018-002951ENV**
Project Title:	**1111 Pennsylvania Avenue**
Zoning:	PDR-2 (Core Production, Distribution, and Repair) Zoning District Industrial Protection Zone Special Use District 65-J Height and Bulk District
Block/Lots:	4291/015
Lot Size:	38,298 square feet (0.88 acres)
Project Sponsor:	William Mollard – 415.523.0304 will@workshop.com
Lead Agency:	San Francisco Planning Department
Staff Contact:	Kei Zushi – 628.652.7495 kei.zushi@sfgov.org

PROJECT DESCRIPTION

The proposed project at 1111 Pennsylvania Avenue is located in San Francisco's Potrero Hill neighborhood. A description of the proposed project location, characteristics, and its regional and local context, planning process and background, as well as a discussion of requested project approvals are included below.

The approximately 38,298-square-foot (sf) project site is located on the block bounded by 25th Street to the north, Iowa Street unimproved right-of-way to the east, Pennsylvania Avenue to the west, and Cesar Chavez to the south. An elevated portion of Interstate 280 (I-280) runs along and approximately 25 feet from the eastern property line of the project site. The abutting parcel to the south includes an on-ramp to southbound I-280 lanes. (see Figure 1). There is an existing Caltrain tunnel located underground and west of the project site. The western edge of the project site is approximately 60 to 100 feet from the northern edge of the Caltrain tunnel.

The project site, which contains no existing buildings, is currently used as a storage site for shipping containers. The project site is in the Core Production, Distribution, and Repair (PDR-2) Zoning District and a 65-J Height and Bulk District.

The proposed project would include: (1) the removal of 90 portable shipping containers from the project site; and (2) the construction of a 65-foot-tall (exclusive of the 11-foot-tall mechanical screens), four-story, approximately 171,206-sf building over a two-level basement. The proposed building would provide

approximately: 143,908 gross square feet of non-life science laboratory;[1] 16,019 gross square feet of lobbies, restrooms, stairs, elevator, and circulation; 11,279 square feet of trash area, vehicle loading, and bike and vehicle parking including 56 class 1 bicycle[2] parking spaces on the ground floor and 20 vehicle parking spaces and two freight loading spaces in an underground parking garage accessible from 25th Street; and an approximately 16,800-sf rooftop terrace at the fourth-floor level. The project would also provide eight class 2 bicycle parking spaces located on the sidewalk along the project frontage on Pennsylvania Avenue. See Table 1, below, for the summary of existing and proposed uses on the project site. The depths of excavation would range from 12 to 22 feet below ground surface with a total of approximately 8,540 cubic yards of soil excavated during the project construction period.

The project would remove two existing curb cuts along the project frontage on Pennsylvania Avenue and the existing westerly curb cut along the project frontage on 25th Street. The width of the existing easterly curb cut along the project frontage on 25th Street would be increased from approximately 20 feet to 25 feet. Two sidewalk bulbouts, one at the southwestern corner of the Pennsylvania Avenue/25th Street intersection and another at the southeastern corner of the same intersection, would be installed. The project would also replace four existing on-street metered parking spaces with three on-street passenger loading spaces (approximately 22 feet in length each), retain two existing on-street metered parking spaces along the project frontage on the south side of 25th Street, and remove two existing parking spaces on the north side of 25th Street near the Pennsylvania Avenue/25th Street intersection. The project would not alter the widths of the existing sidewalks adjacent to the project site.

There is one existing tree, which has a diameter at breast height of about 64 inches, near the south property line on the project site. There are 14 existing trees located outside of the project site, along the project site's east and south property lines. There are no existing street trees along the project site frontages on Pennsylvania Avenue and 25th Street. The proposed project would remove the existing tree on the project site and would trim or remove the 11 existing trees along the east property line as necessary to accommodate construction. The project would not remove or trim any other existing trees. Implementation of the proposed project would include the planting of 12 street trees along Pennsylvania Avenue and 25th Street, subject to approval by San Francisco Public Works. See Figures 2 though 14 for the project plans.

Construction of the proposed project would occur in phases lasting for approximately 22.5 months. The project sponsor anticipates that the demolition phase including the removal of the fencing and onsite asphalt and concrete to be approximately two weeks, site preparation and grading phase to be approximately 1.5 months, shoring and foundation work phase to be approximately three months, building construction and architectural coatings phase to be 17 months, and paving phase, including paving of adjacent sidewalks, to be approximately two weeks. The project construction would not involve construction during nighttime hours between 8 p.m. and 7 a.m.

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1 Life science laboratories are not permitted in the PRD-2 zoning district. Unless otherwise noted, all reference to laboratory in this document refers to non-life science laboratory.

2 Pursuant to San Francisco Planning Code section 155.1, class 1 bicycle parking spaces are secure weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, nonresidential occupants, and employees. Class 2 bicycle parking spaces are racks located in a publicly accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use.

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, pages 145-155.

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

Devyani Jain

Lisa Gibson
Environmental Review Officer

September 24, 2021

Date of Adoption of
Final Mitigated Negative Declaration

cc: William Mollard, Project Sponsor
Commenters
Alex Westhoff, Current Planning Division, Planning Department

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1111 Pennsylvania Avenue Project

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ACRONYMS AND ABBREVIATIONS

Acronym/ Abbreviation	Definition
ADRP	archeological data recovery plan
ATP	archeological testing plan
AMP	archeological monitoring program
BART	Bay Area Rapid Transit
bgs	below ground surface
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	State of California Division of Occupational Safety and Health
CAM	California Administrative Manual
CEQA	California Environmental Quality Act
CO	carbon monoxide
EIR	environmental impact report
ERO	Environmental Review Officer
FARR	Final Archeological Resources Report
FTA	Federal Transit Administration
GHG	greenhouse gases
MLD	Most Likely Descendant
MRZ	Mineral Resource Zone
Muni	San Francisco Municipal Railway
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen

Initial Study
1111 Pennsylvania Avenue
Planning Department Case No. 2018-002951ENV

A. PROJECT DESCRIPTION

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Project Location

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Project Construction

Construction of the proposed project would occur in phases lasting for approximately 22.5 months. The project sponsor anticipates that the demolition phase including the removal of the fencing and onsite asphalt and concrete to be approximately two weeks, site preparation and grading phase to be approximately 1.5 months, shoring and foundation work phase to be approximately three months, building construction and architectural coatings phase to be 17 months, and paving phase, including paving of adjacent sidewalks, to be approximately two weeks. The project construction would not involve construction during nighttime hours between 8 p.m. and 7 a.m.

The sponsor anticipates that the project would require encroachment permits from the California Department of Transportation (Caltrans) for scaffolding and shoring, possibly landscaping, and access for building maintenance along the south and east property lines of the project site.

TABLE 1: SUMMARY OF EXISTING AND PROPOSED USES

Land Use	Existing	Proposed
Shipping Container Storage	38,298 gsf	0
Laboratory	0	143,908 gsf
Lobby, Stairs, Elevator, Restrooms, and Circulation	0	16,019 gsf
Total Gross Floor Area	**38,298 gsf**	**159,927 gsf**
Other Areas: Bike and Vehicle Parking, Vehicle Loading, Trash, Elevator Penthouse*	0	11,279 sf
Total Square Footage	**38,298 sf**	**171,206 sf**
Off-Street Vehicular Parking	0	20 spaces
Off-Street Freight Loading	0	2 spaces
Bicycle Parking	0	56 class I spaces 8 class II spaces

*Other Areas are excluded from the gross floor area per planning code section 102, floor area, gross, exclusions.

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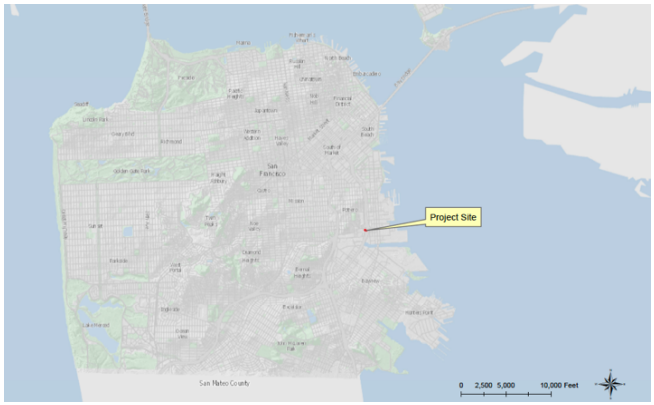
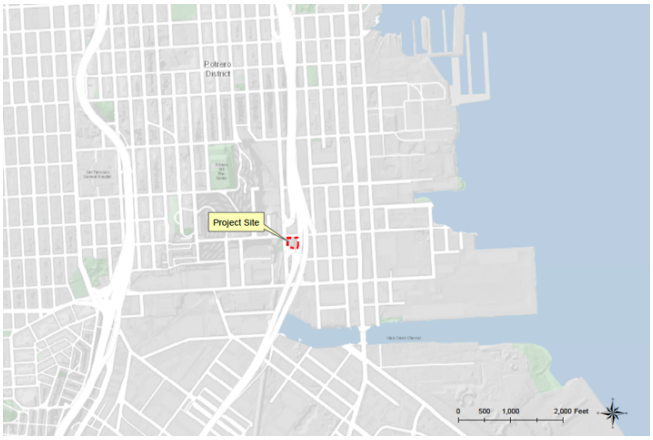
FIGURE 1: PROJECT LOCATION





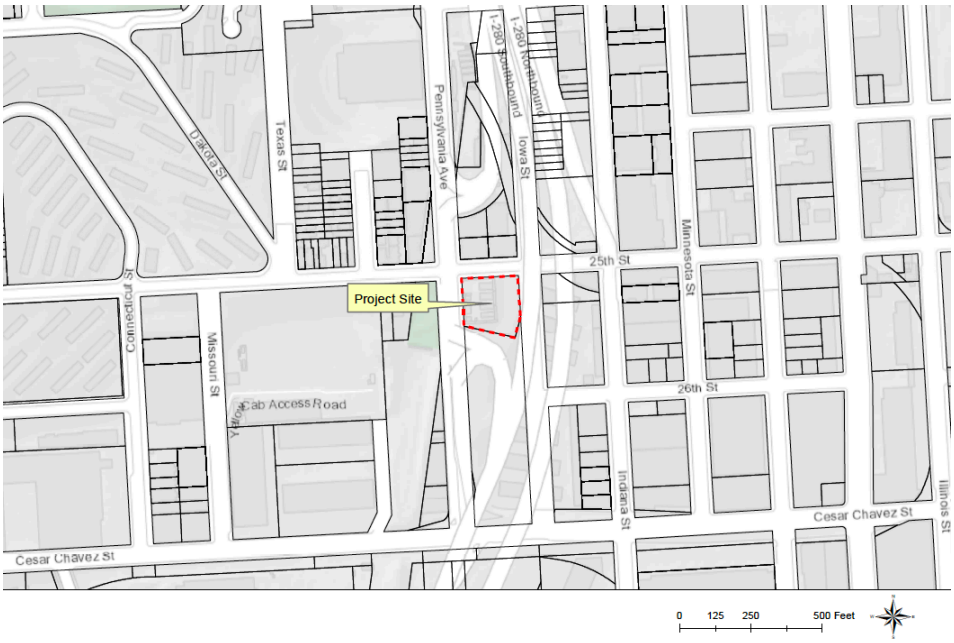


FIGURE 2: EXISTING SITE PLAN

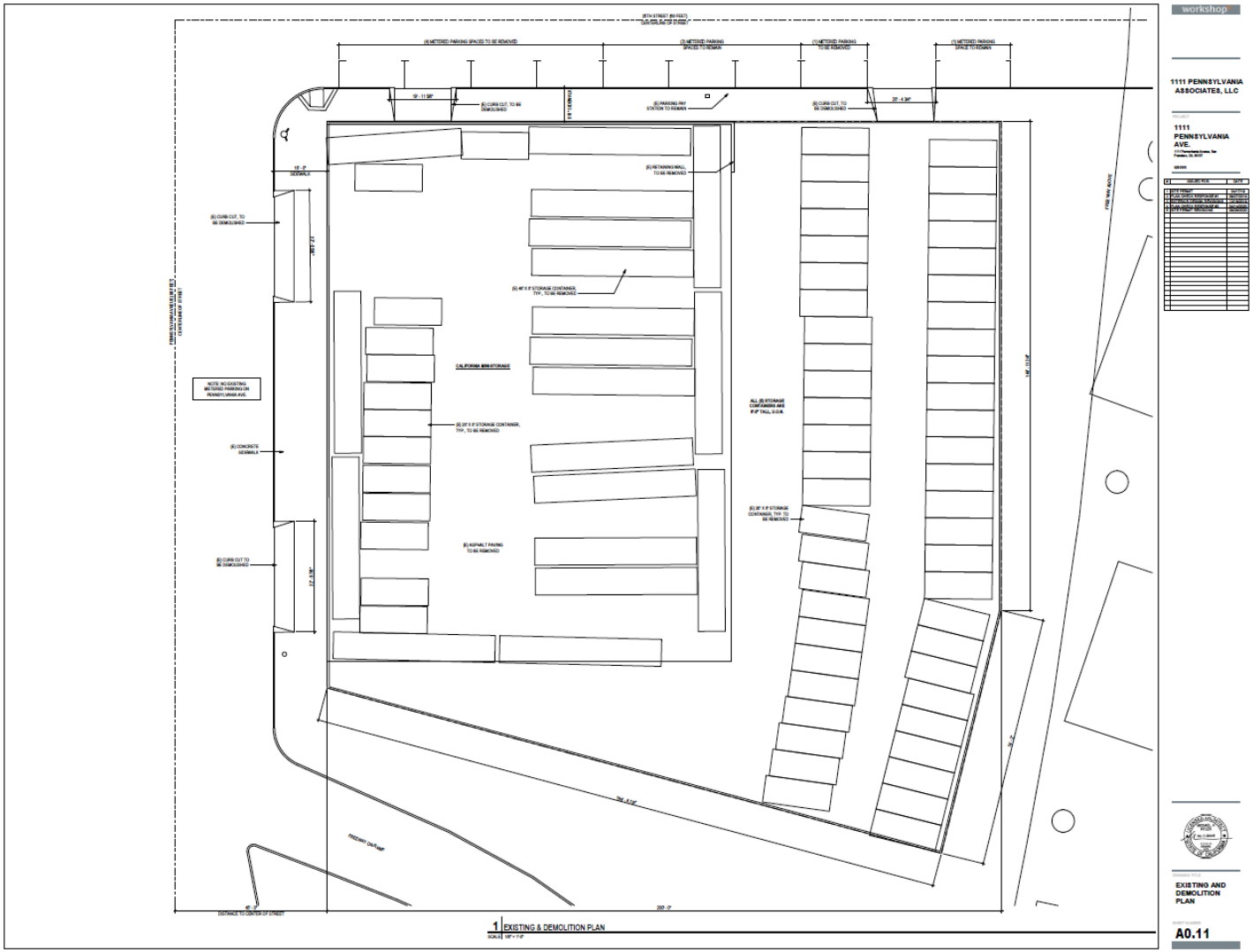


FIGURE 3: PROPOSED SITE PLAN

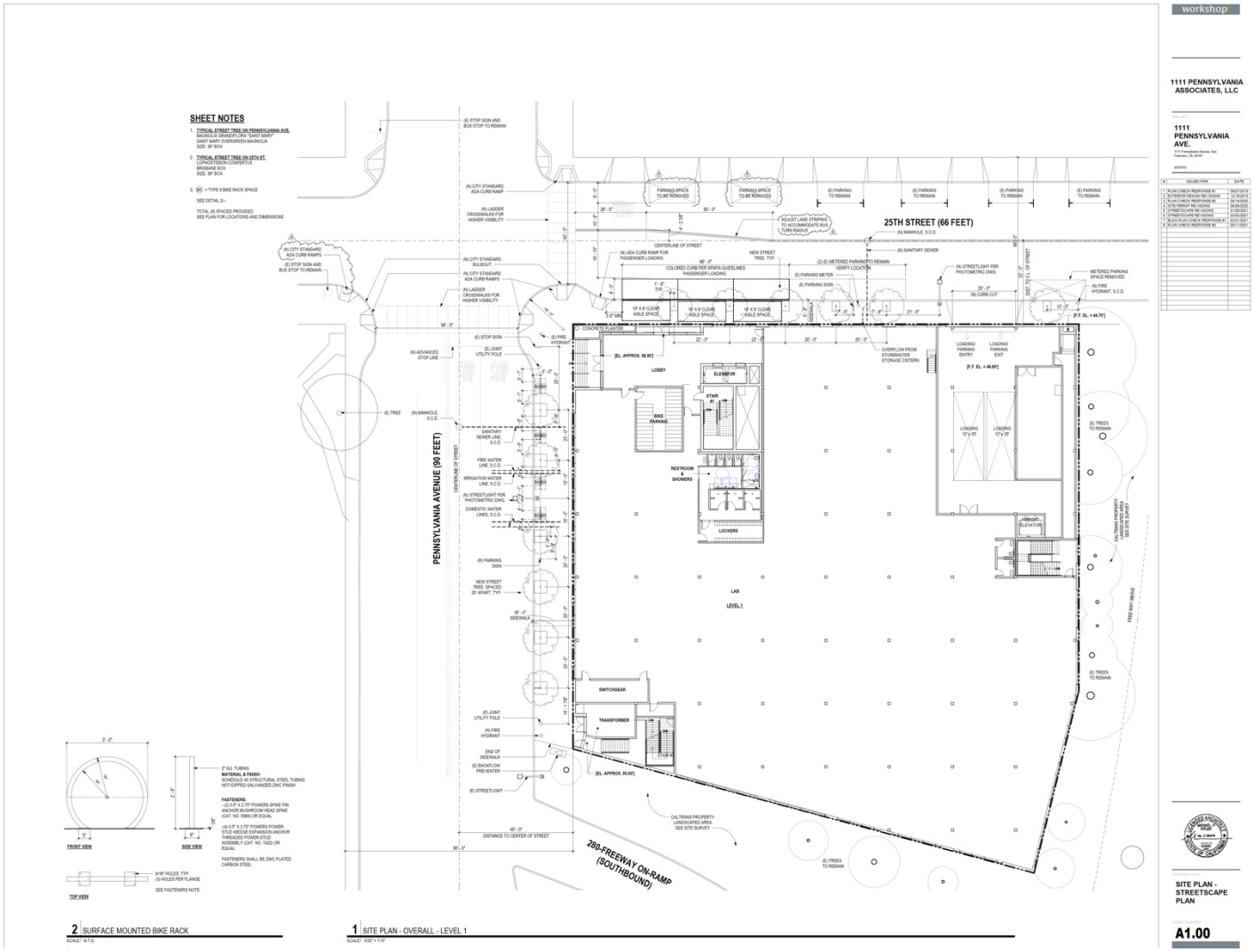


FIGURE 4: PROPOSED FLOOR PLAN – LOWER LEVEL 2

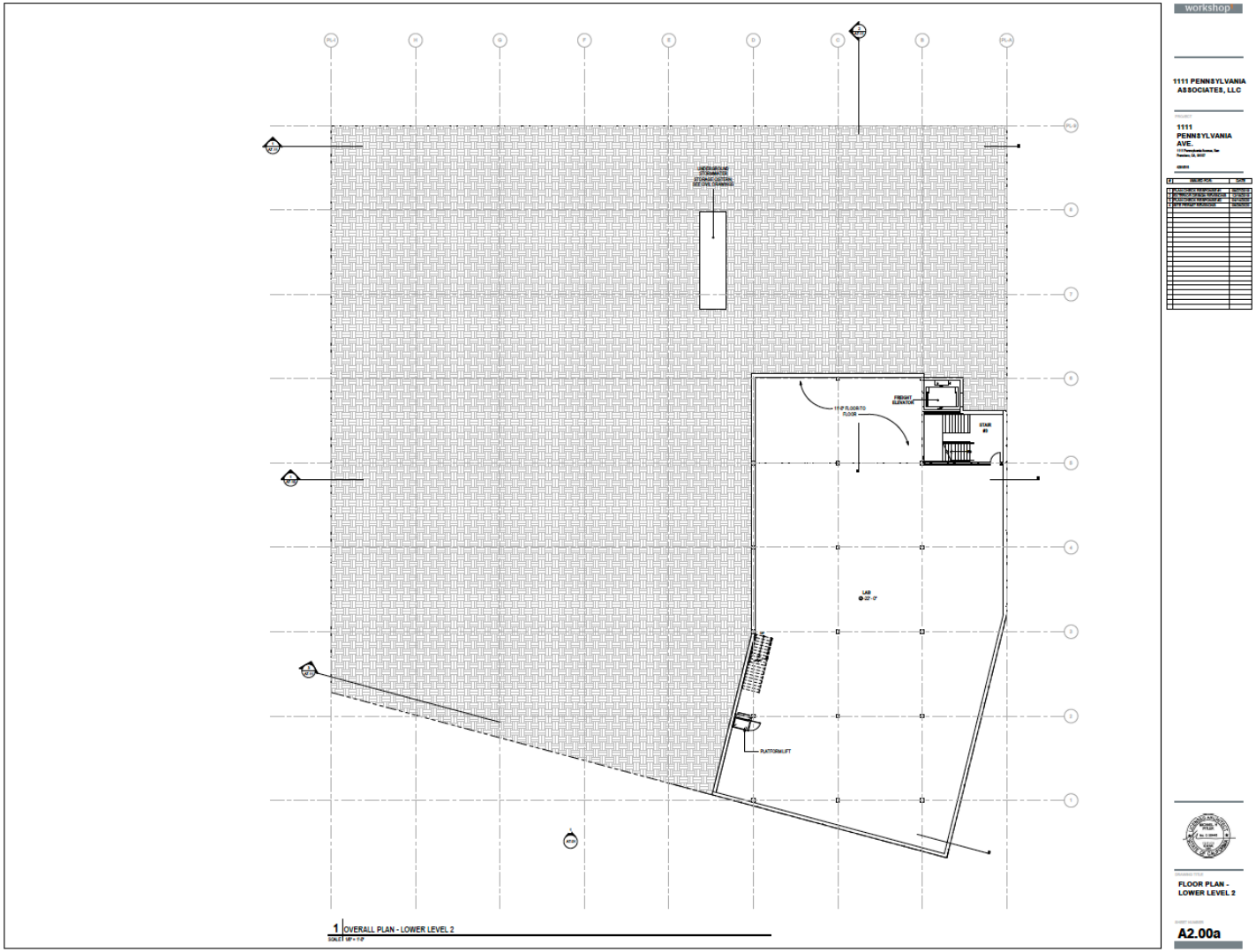


FIGURE 5: PROPOSED FLOOR PLAN – LOWER LEVEL 1

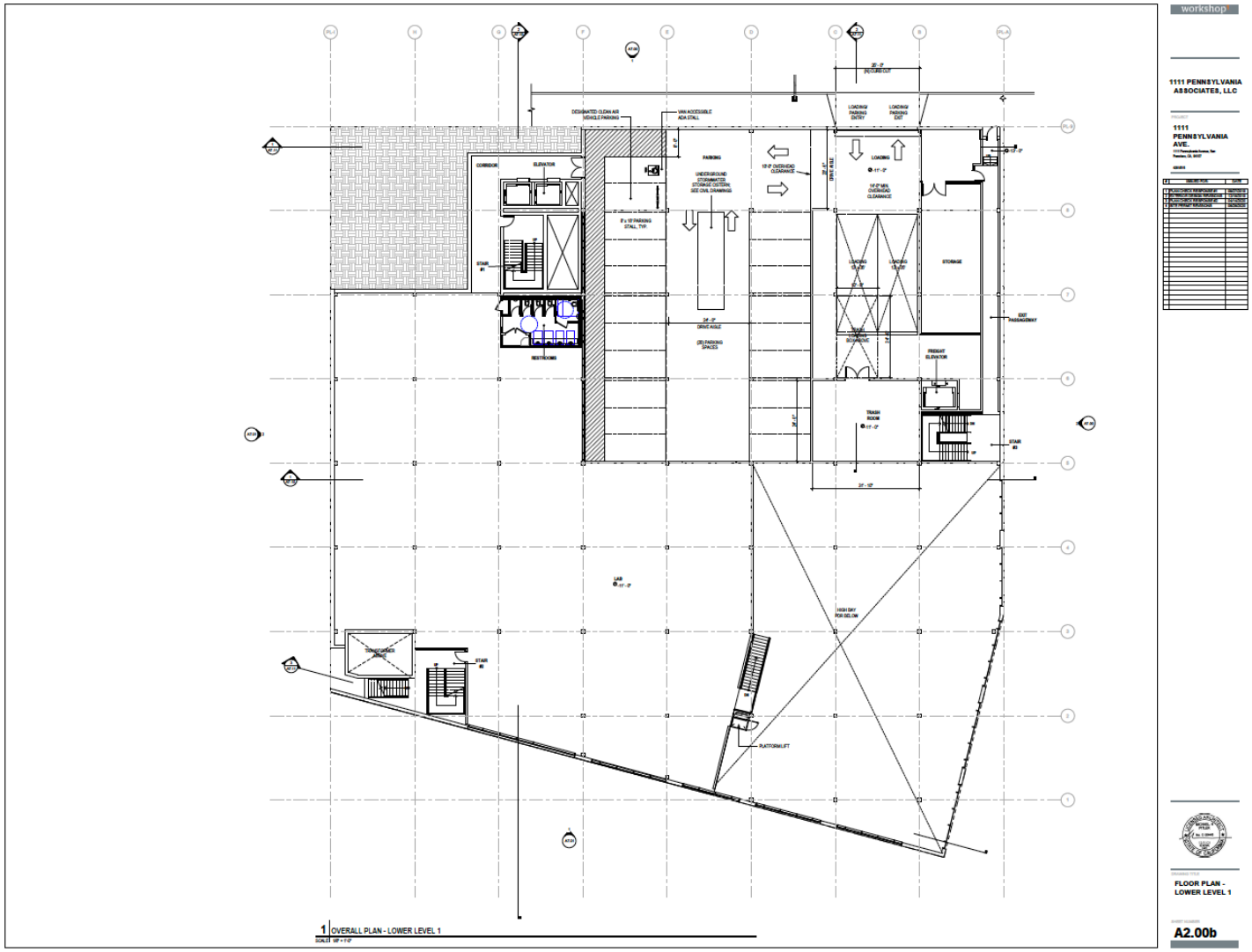


FIGURE 6: PROPOSED FLOOR PLAN – LEVEL 1

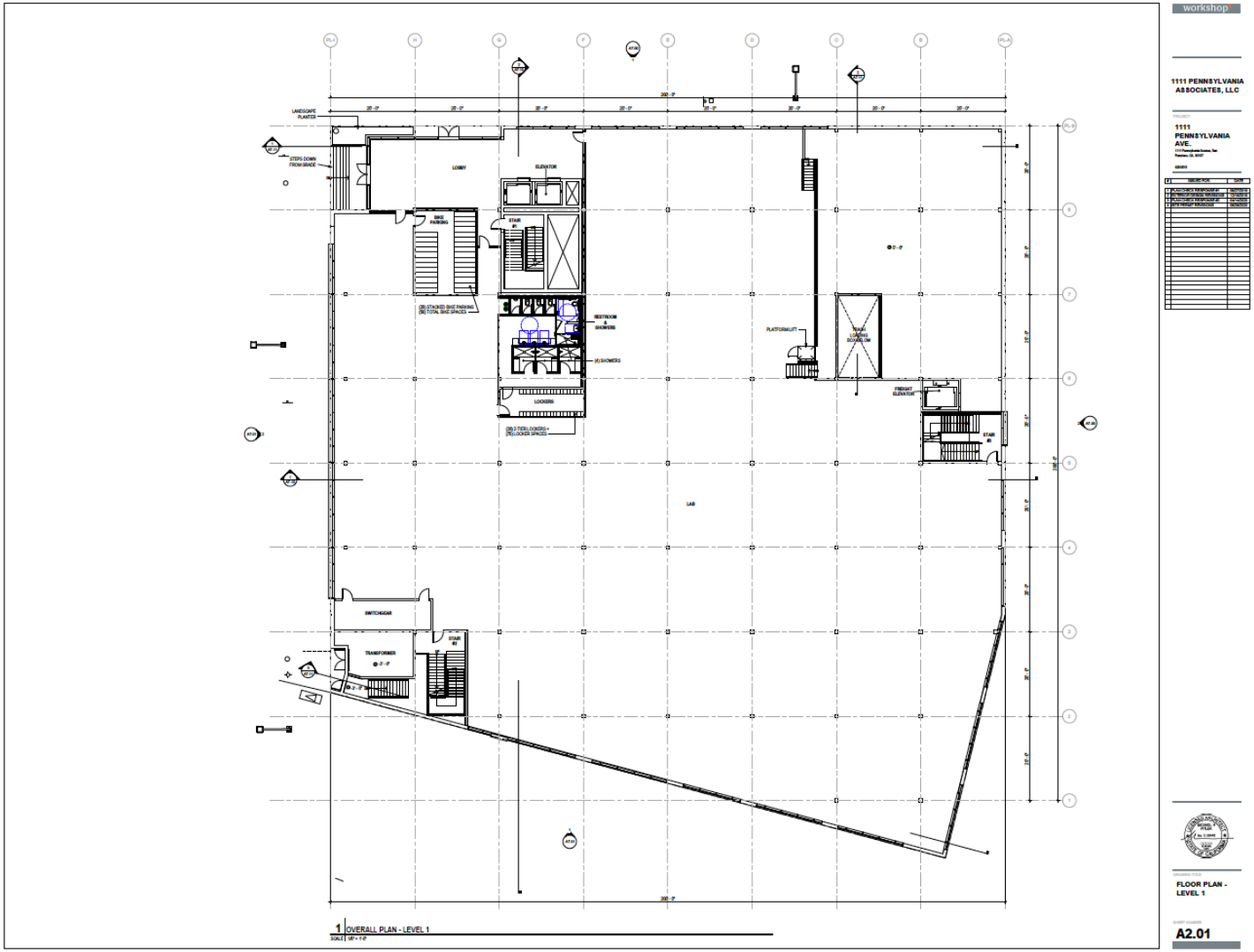


FIGURE 7: PROPOSED FLOOR PLAN – LEVEL 2

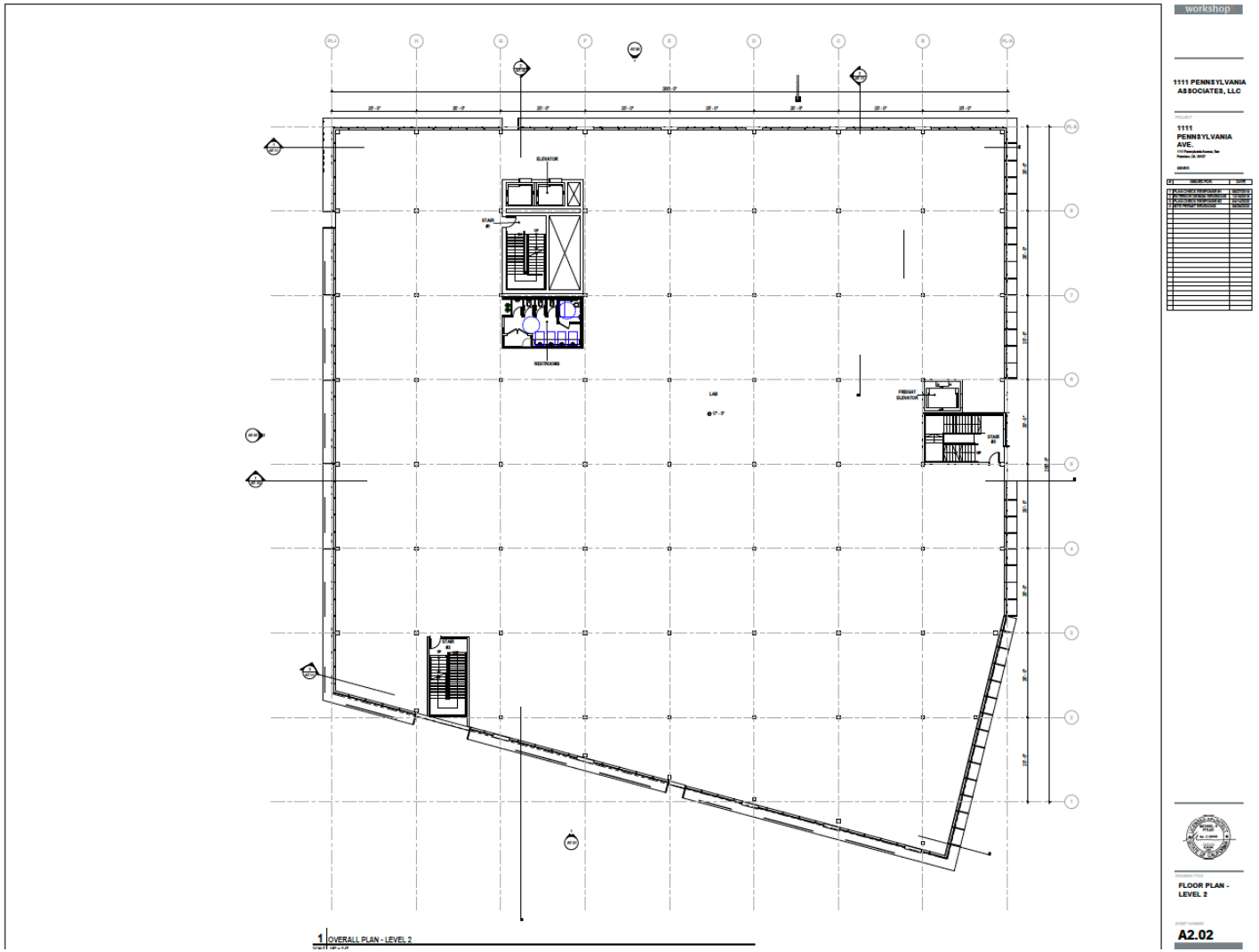


FIGURE 8: PROPOSED FLOOR PLAN – LEVEL 3

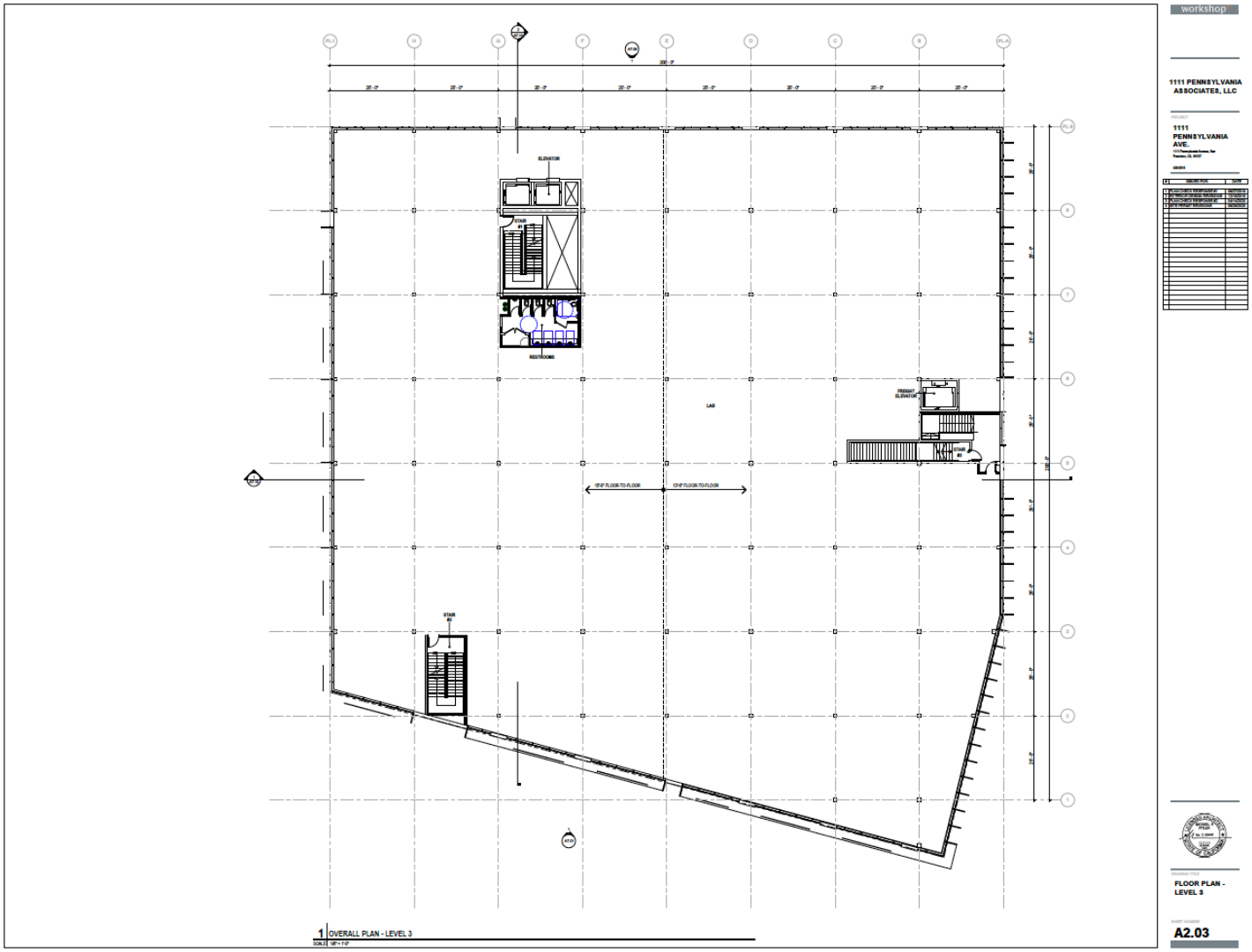


FIGURE 9: PROPOSED FLOOR PLAN – LEVEL 4

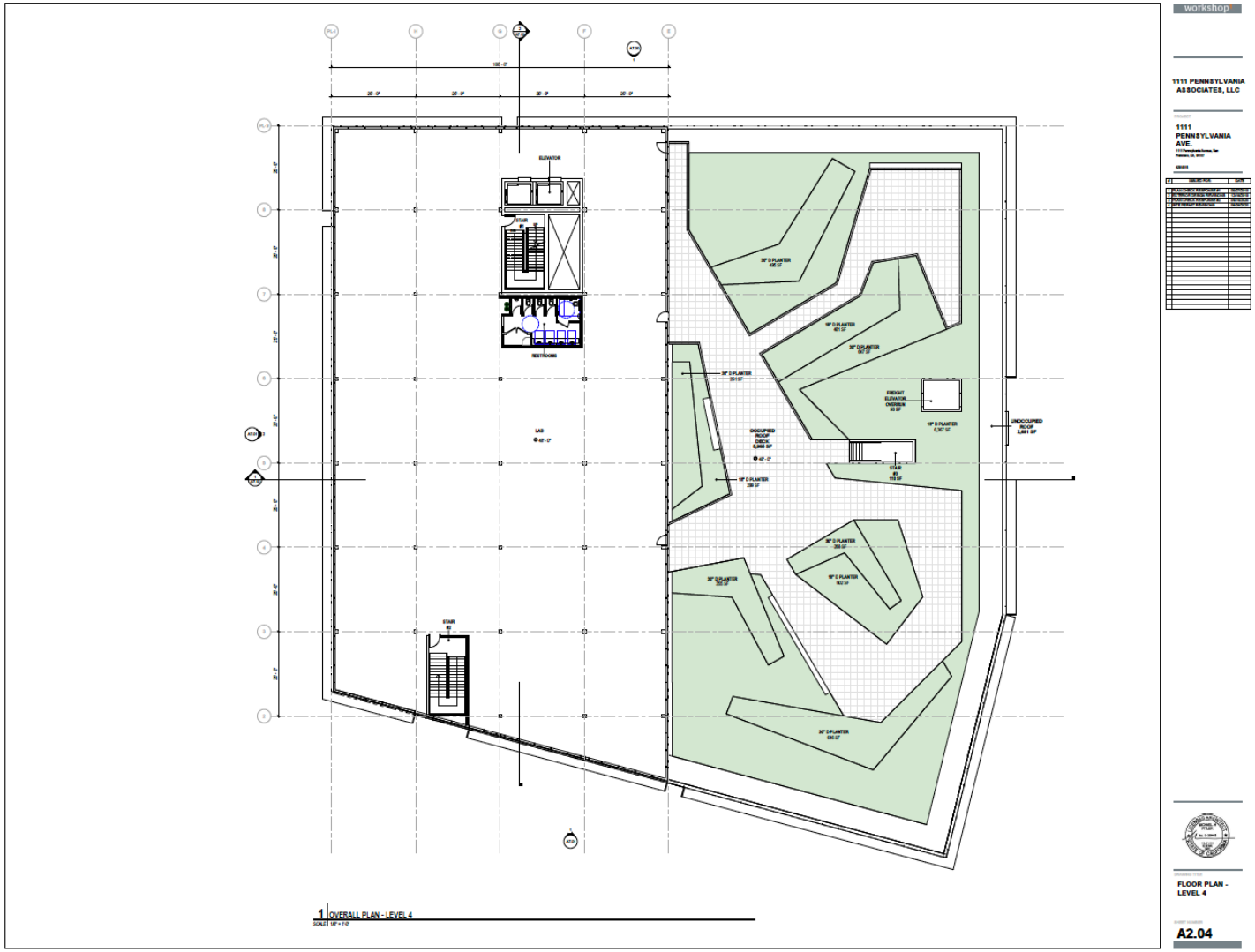


FIGURE 10: PROPOSED FLOOR PLAN – ROOF

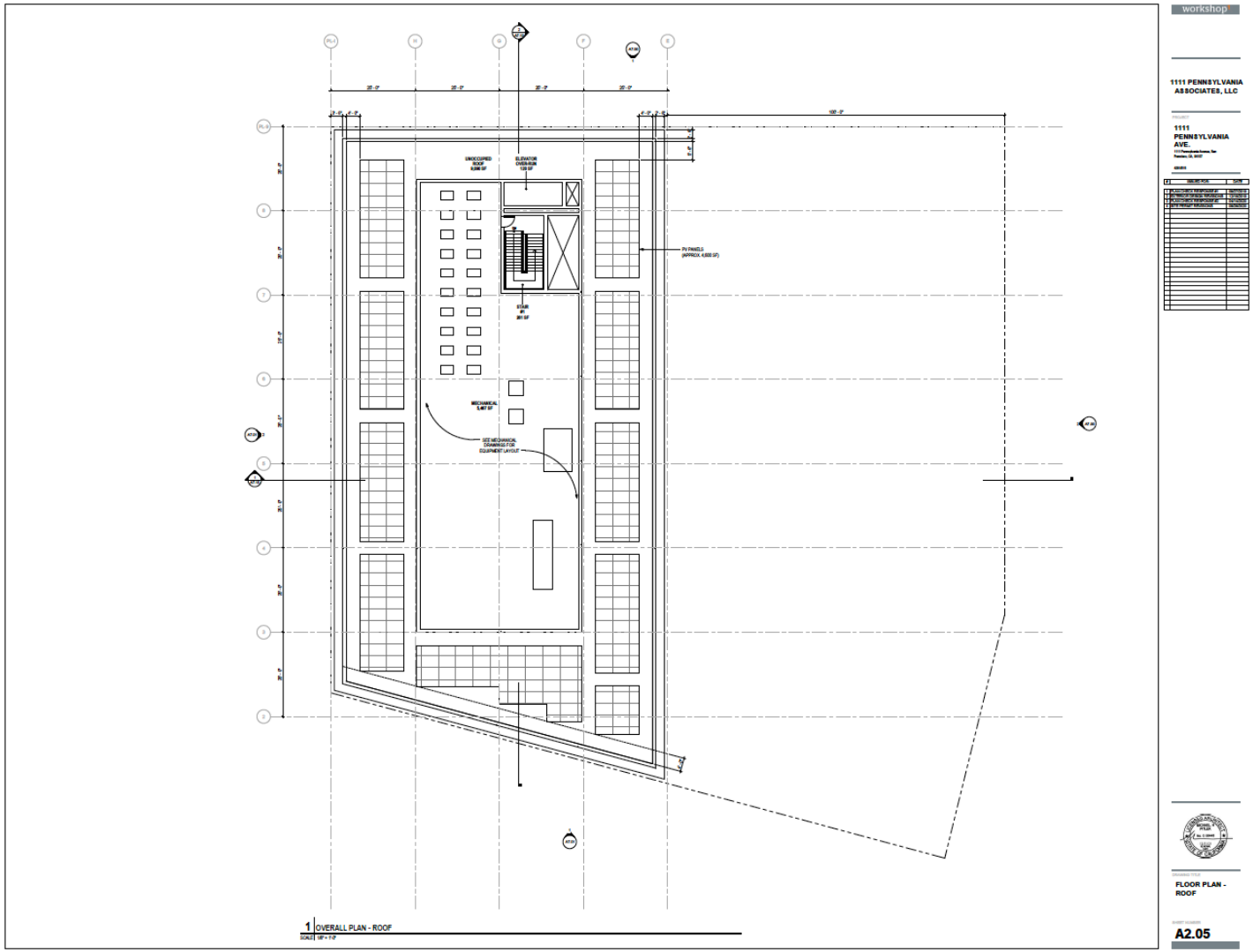


FIGURE 11: PROPOSED ELEVATION – NORTH (LOOKING FROM 25TH STREET)

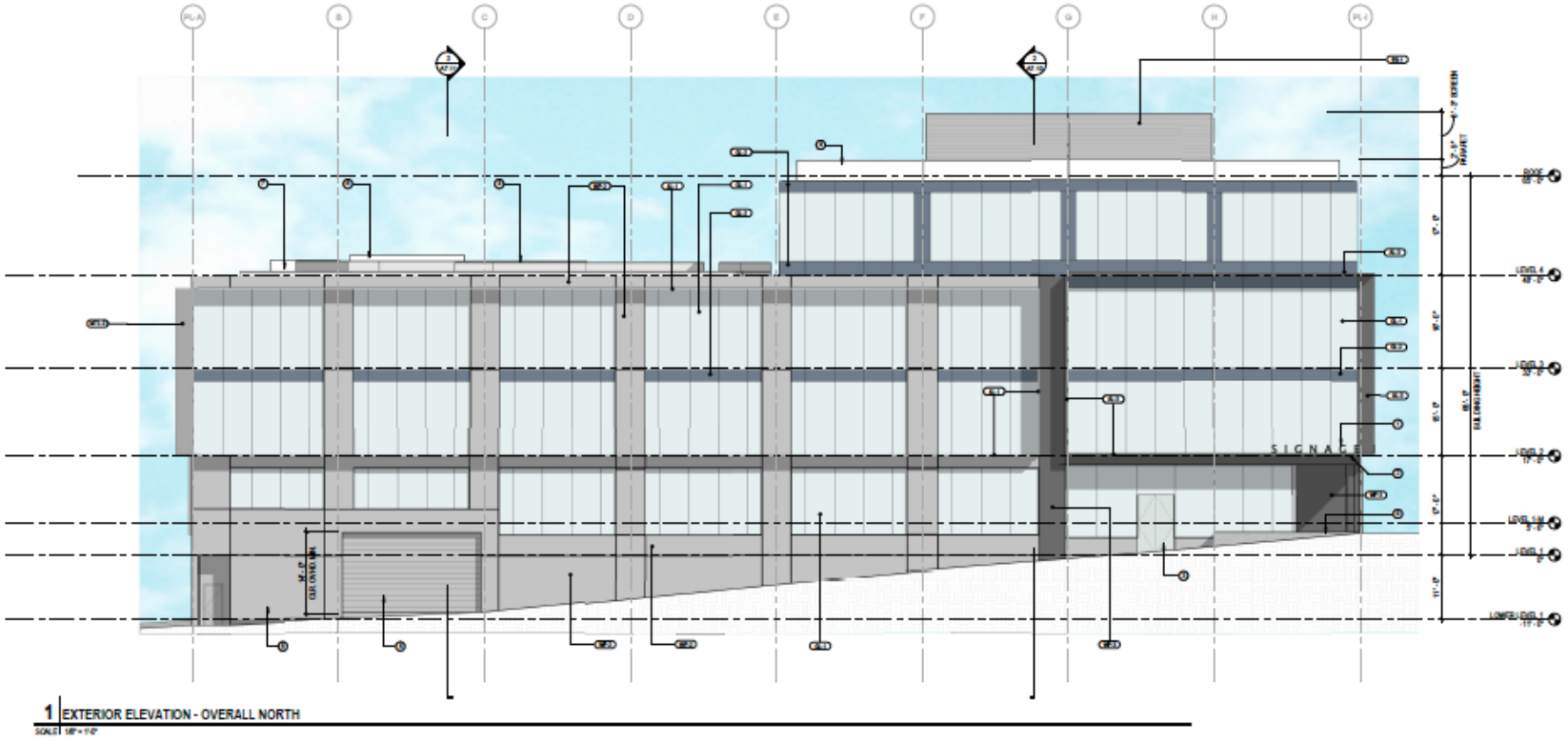


FIGURE 12: PROPOSED ELEVATION – EAST

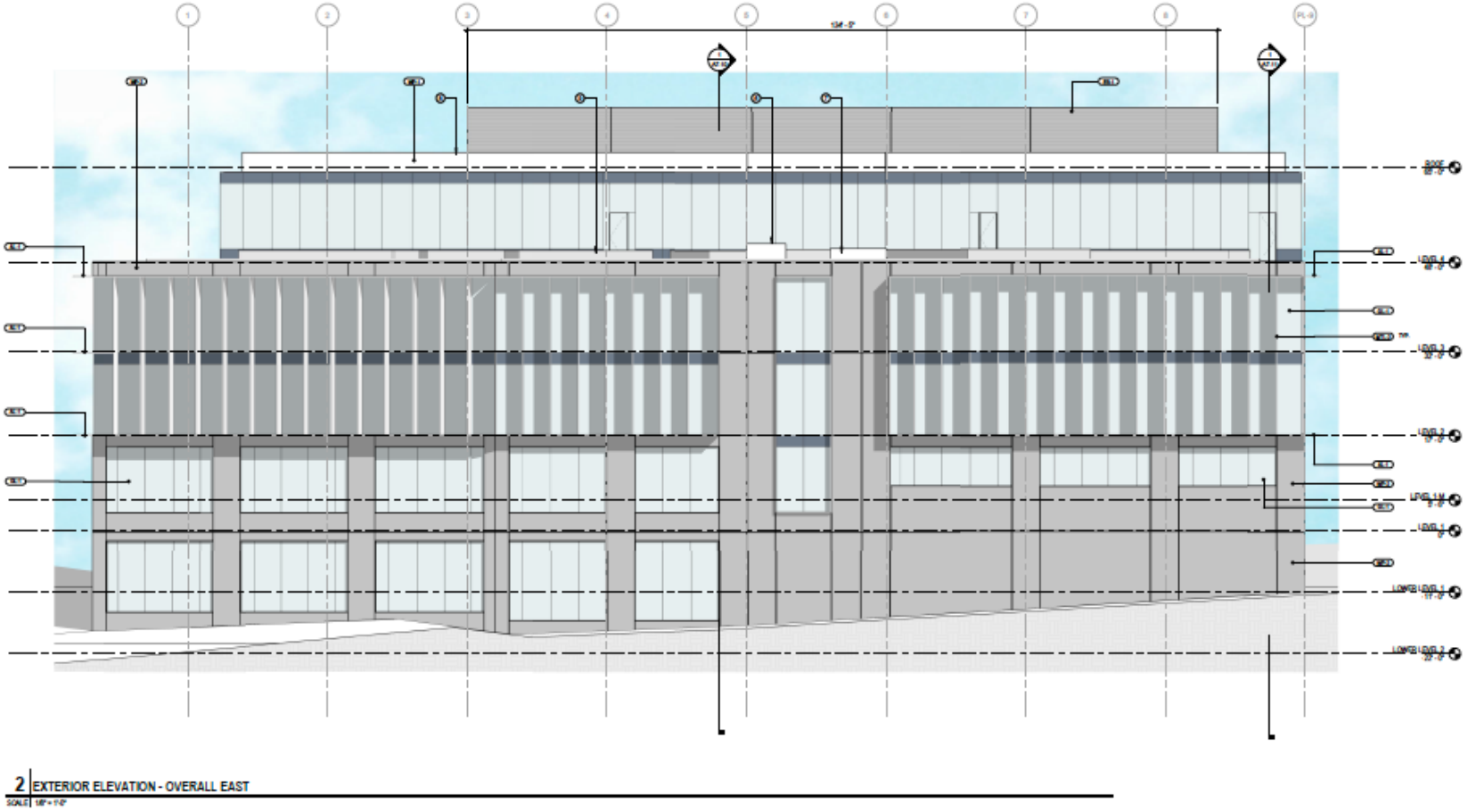


FIGURE 13: PROPOSED ELEVATION – SOUTH

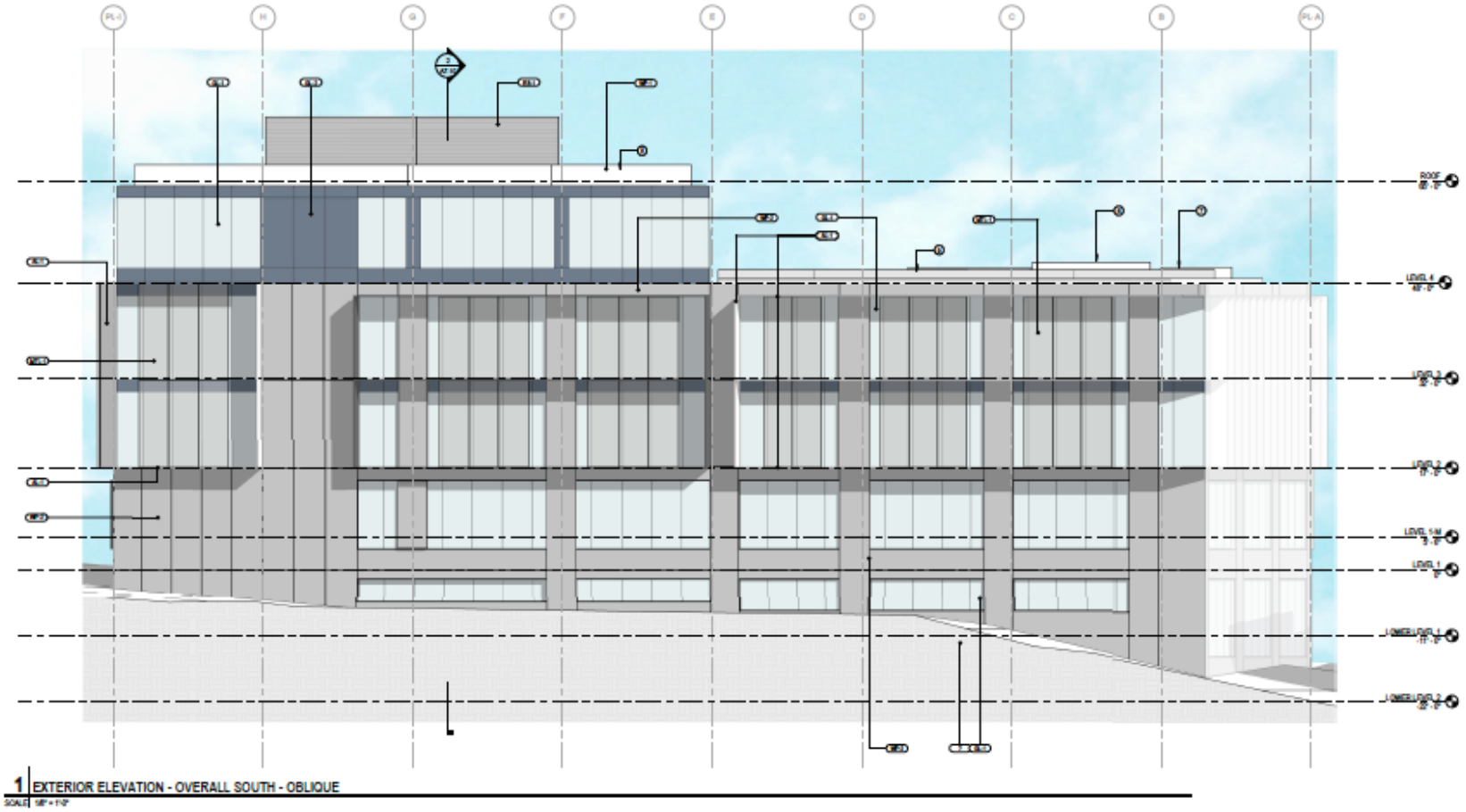
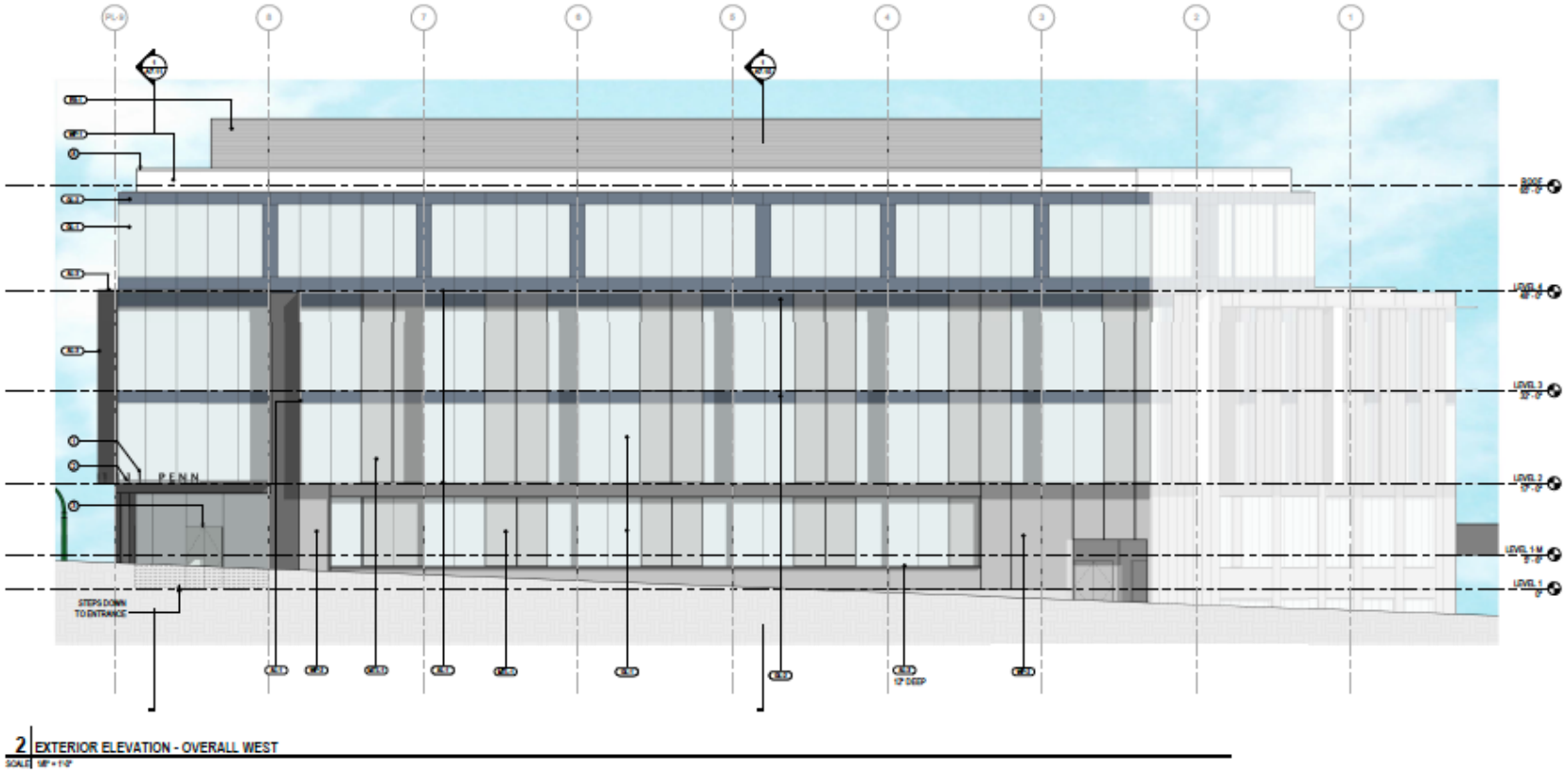


FIGURE 14: PROPOSED ELEVATION – WEST (LOOKING FROM PENNSYLVANIA AVENUE)



Project Approvals

The proposed project would require the following approvals:

Actions by City Departments

- **Site/Building Permit** (*Planning Department and Department of Building Inspection*)
- **Approval of Color Curb Changes** including passenger loading zone on 25th Street (*San Francisco Municipal Transportation Agency (SFMTA)*)
- **Approval of a street space permit for construction** (*San Francisco Public Works*)
- **Approval of special traffic permits for temporary occupancy of streets and sidewalks during construction** (e.g., if sidewalks are used for construction staging and walkways are constructed in the curb lane) (*SFMTA*)
- **Approval of construction within the public right-of-way** (e.g., curb cuts, bulbouts, bicycle racks, etc.) (*San Francisco Public Works, SFMTA Sustainable Streets Division*)
- **Approval of a permit to plant new street trees adjacent to the project site** (*San Francisco Public Works Bureau of Urban Forestry*)
- **Approval of any changes to connections to the sewer system** (e.g., sewer laterals and/or manholes, as necessary) (*San Francisco Public Utilities Commission (SFPUC)*)
- **Approval of the size and location of any new water service laterals** (e.g., standard, fire, irrigation, etc.) (*SFPUC*)
- **Approval of the size and location of existing or new fire hydrants** (*SFPUC*)
- **A permit from SFPUC's Wastewater Enterprise Collection System Division** if groundwater is encountered during construction or operation (*SFPUC*)
- **Hydraulic analysis** to confirm the adequacy of the water distribution system for proposed new potable and fire water services (*SFPUC*)
- **Construction erosion and sediment control plan** and **post-construction stormwater control plan** for compliance with the city's Stormwater Design Guidelines. (*SFPUC*)
- **Review and approval of site mitigation plan** in accordance with San Francisco Health Code Article 22A (*Department of Public Health*)
- **Review and approval of a dust control plan** in accordance with San Francisco Health Code Article 22B (*Department of Public Health*)

- **Approval of the use of dewatering wells** per Article 12B of the health code (*joint approvals by San Francisco Department of Public Health and the SFPUC*)

California Department of Transportation (Caltrans)

- **Approval of encroachment permit**s (encroachments into Caltrans' rights-of-way)

Bay Area Air Quality Management District (BAAQMD)

- **Approval of a BAAQMD Authority to Construct Permit** to install a back-up emergency generator

- **Approval of BAAQMD Permit to Operate** prior to initial use of the back-up emergency generator and annually thereafter.

The approval of the building permits to be issued by the Department of Building Inspection (building department) constitutes the Approval Action for the proposed project. The Approval Action date establishes the start of the 30-day period for the appeal of the Final Mitigated Negative Declaration to the San Francisco Board of Supervisors pursuant to section 31.04(h) of the San Francisco Administrative Code.

B. PROJECT SETTING

Project Site and Surrounding Land Uses

The project site fronts Pennsylvania Avenue on the west, 25th Street on the north, and Iowa Street unimproved right-of-way on the east. To the east of the project site, above the Iowa Street unimproved right-of-way, is an elevated portion of I-280. To the south of the project site is a parcel occupied by open space and onramps to southbound I-280 lanes. There is a park, known as Tunnel Top Park,[5] to the west of the project site across Pennsylvania Avenue. Three- and four-story residential buildings, located at 1468 25th Street, occupy the northwest corner of Pennsylvania Avenue and 25th Street. There are one-story, commercial buildings on the north side of 25th Street across from the project site.

The existing scale of development in the area ranges from one to four stories. Many of the existing buildings in the project vicinity include light industrial and commercial uses, but there are residential uses to the northwest and northeast of the project site.

The project site is well served by public transportation. The closest existing public transit route from the project site is that for the Muni 48 Quintara/24th Street bus line, which travels along 25th Street west of the Pennsylvania Avenue/25th Street intersection and along Pennsylvania Avenue

[5] Tunnel Top Park is a private, community run park and is not under the jurisdiction of the San Francisco Recreational and Park Commission. Tunnel Top Park, *https://tunneltoppark.org/*, accessed July 13, 2021.

north of the same intersection. Caltrain's 22nd Street station is located approximately 0.4 mile to the north of the project site.

Cumulative Context

The cumulative context for land use effects are typically localized, within the immediate vicinity of the project site, or at the neighborhood level. Cumulative development in the project vicinity (within approximately a quarter-mile radius of the project site) includes the following projects, which are either under construction or for which the planning department has a project application on file.[6] The areas and the projects relevant to the analysis vary, depending on the topic, if specifically noted in the cumulative analyses presented in subsequent sections of this document.

- Potrero Power Station Mixed-Use Development Project (Planning Department Case No. 2017-011878ENV): Redevelopment of an approximately 29-acre site with a variety of facilities. These facilities would include approximately 2,400 dwelling units, six acres of open space, 1.2 to 1.9 million square feet of non-residential uses, including office, research and development/life science, retail, hotel, and production, distribution, and repair (PDR), and 100,000 square feet of community facilities.

- 1401-1443 and 1499 Illinois Street & 700 25th Street Project (Planning Department Case No. 2018-000949ENV): Demolition of seven existing PDR buildings, totaling approximately 35,000 square feet, and construction of a 40-foot-tall, three-story-over-basement, approximately 350,000-sf building providing approximately 230,000 square feet of laboratory use and 35,500 square feet of light manufacturing use.

- 640 Cesar Chavez Street Project (Planning Department Case No. 2021-001111ENV): Construction of a new Cruise, LLC autonomous vehicle (AV) fleet maintenance and charging facility.

- 1901 Cesar Chavez Street Project (Planning Department Case No. 2019-015210ENV): Construction of an approximately 105,000-sf public utility yard for use by the San Francisco Public Utilities Commission at the eastern end of the site, an 18,900-sf warehouse at the western end of the site, and an 8,400-sf modular structure containing accessory office space at the south end of the site.

- Muni Metro East Expansion / 601 25th Street Project (Planning Department Case No. 2019-014784ENV): Conversion of an existing four-acre construction staging area on the east portion of the site to an approximately 90,000-sf temporary bus surface storage area with associated facilities to be used by SFMTA. Up to 104 60-foot-long trolley buses or 143 40-foot-long trolley buses would be stored in the proposed storage area. These facilities would

[6] Both the Potrero HOPE SF project (Planning Department Case No. 2010.0515E) and Pier 70 project (Planning Department Case No. 2014.001272ENV) have broken ground. Therefore, these projects are treated as existing projects as opposed to cumulative projects in this document.

include an approximately 3,400-gsf bus wash station, 3,400-gsf fare collection building, and a 3,700-gsf administration building.

- 1033 Texas Street Project (Planning Department Case No. 2017-013051ENV): Relocation of an existing two-family residence, raising it to insert a new ground-level floor and rehabilitation of the building for use as a four-story, three-unit residential building including two three-bedroom residential units and one two-bedroom unit.

- 999 Texas Street Project (Planning Department Case No. 2018-015815ENV): Construction of an approximately 55-foot-tall, seven-story, 19,000-sf building providing 25 residential units.

- 1228 25th Street Project (Planning Department Case No. 2015-005968ENV): Removal of an existing approximately 3,800-sf storage yard with containers and construction of a 58-foot-tall (68 feet including the mechanical penthouse), five-story, 14,800-sf building providing 8,140 square feet of unfinished, flexible layout small enterprise workspaces (PDR use) on the second through fifth floors and 3,000 square feet of ground-floor retail space.

Implementation of these nearby cumulative development projects would result in the construction of up to approximately 2,426 dwelling units and up to approximately 2.8 million sf of non-residential space.

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.	☐	☒
Discuss any conflicts with any adopted plans and goals of the city or region, if applicable.	☒	☐
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.	☒	☐

C.1 City and County of San Francisco Plans and Policies

The proposed project would not seek any variance, special authorization, or change to the planning code or zoning map.

San Francisco Planning Code and Zoning Maps

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

Land Use

The project site is in the Core Production, Distribution, and Repair (PDR-2) zoning district. Pursuant to planning code section 210.3, the PDR-2 zoning district is intended to encourage the introduction, intensification, and protection of a wide range of light and contemporary industrial activities.

Vehicle Parking, Loading, and Bicycle Parking

Pursuant to planning code section 151, parking for residential and commercial uses is not required. For the purpose of calculating the maximum allowable number of parking spaces, science laboratory use is considered a non-retail sales and services use under planning code section 102.[7] Pursuant to planning code section 151, up to 1.5 parking spaces for each 1,000 square feet of occupied floor area of non-retail sales and services is allowed, where the occupied floor area exceeds 5,000 square feet. The proposed project would provide approximately 143,900 square feet of laboratory space with 20 on-site automobile parking spaces. Thus, the project would not exceed the maximum allowable number of parking spaces under planning code section 151 (i.e., 216 parking spaces).

Pursuant to planning code section 152, one off-street freight loading space is required for all uses, except for retail sales and services and industrial uses, for a building with an occupied floor area between 100,001 - 200,000. The project would provide laboratory use and two off-street freight loading space located in the ground-floor garage. Per section 155.2, the project would be required to provide 12 class 1 bicycle parking spaces (one class 1 space for every 12,000 square feet of occupied floor area of non-retail sales and services use) and four class 2 bicycle parking spaces. The proposed project would provide 56 class 1 bicycle parking on the ground floor spaces in the proposed building and eight class 2 bicycle parking spaces located on the sidewalk along the project frontage on Pennsylvania Avenue. Thus, the project would meet the above planning code requirements.

Height and Bulk

The project site is in a 65-J Height and Bulk District, which permits a maximum building height of 65 feet. Bulk controls reduce the size of a building's floorplates as the building increases in height. Pursuant to planning code section 270(a), certain maximum dimensions apply to a building greater than 40 feet in height in an J Bulk District. The maximum dimensions allow up to 250 feet in length and 300 feet in diagonal dimension.[8] The proposed building would be 65 feet in height. The project would comply with all applicable height and bulk requirements.

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[7] Alex Westhoff, Senior Current Planner, San Francisco Planning Department, Email to Kei Zushi, Senior Environmental Planner, San Francisco Planning Department, *Maximum Off-Street Parking Spaces: 1111 Pennsylvania*, March 26, 2020.

[8] Under planning code section 102, the "length" of a building or structure is the greatest plan dimension parallel to an exterior wall or walls and is equivalent to the horizontal dimension of the corresponding

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. Planning Code Section 210.3 sets a maximum FAR of 5.0 to 1 for properties within the PDR - 2 Zoning District and a 65 Height District and Planning Code Section 125 allows for a 25-percent premium for the corner portion of the lot. The subject lot totals 38,298 square feet and the corner portion of the lot is 15,625 square feet resulting in a lot size of 42,204 square feet for FAR calculation. This results in a maximum allowable floor area of 211,021 square feet for non - residential uses. The proposed project would construct approximately 159,927 gross square feet of non - residential uses resulting in a FAR of 3.8 to 1, which would comply with Planning Code section 210.3.

Plans and Policies

San Francisco General Plan

The San Francisco General Plan establishes objectives and policies to guide land use decisions related to the physical development of San Francisco. It is comprised of ten elements, each of which addresses a particular topic that applies citywide: Air Quality; Arts; Commerce and Industry; Community Facilities; Community Safety; Environmental Protection; Housing; Recreation and Open Space; Transportation; and Urban Design. Any conflict between the proposed project and polices 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 deliberations on whether to approve or disapprove the proposed project.

Proposition M – The Accountable Planning Initiative

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added section 101.1 to the planning code and established eight Priority Policies. These policies, and the topics in section E, Evaluation of Environmental Effects, that address the environmental issues associated with these policies, are: (1) preservation and enhancement of neighborhood-serving retail uses; (2) protection of neighborhood character; (3) preservation and enhancement of affordable housing (Question 2b, Population and Housing, regarding housing supply and displacement issues); (4) discouragement of commuter automobiles (Questions 5a and 5b, Transportation and Circulation); (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 (Question 15a, Geology and Soils); (7) landmark and historic building preservation (Question 3a, Cultural Resources); and (8) protection of open space (Question 10a, Shadow, and Question 11a, Recreation).

Prior to issuing a permit for any project that requires an Initial Study under CEQA, prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action that

elevation of the building or structure at that level. The "diagonal dimension" of a building or structure is the plan dimension between the two most separated points on the exterior walls.

requires a finding of consistency with the *General Plan*, the city is required to find that the proposed project or legislation would be consistent with the Priority Policies.

As noted above, the compatibility of the proposed project with *General Plan* objectives and policies that do not relate to physical environmental issues will be considered by decision-makers as part of their deliberations on whether to approve or disapprove the proposed project. Any potential conflicts that are identified as part of the process would not alter the physical environmental effects of the proposed project.

C.2 Regional Plans and Policies

The five principal regional planning agencies and their overarching policy-plans to guide planning in the nine-county Bay Area include the Association for Bay Area Governments' *Plan Bay Area* and *Projections 2040*, the Bay Area Air Quality Management District's *Bay Area 2017 Clean Air Plan*, the Metropolitan Transportation Commission's *Regional Transportation Plan – Transportation 2035*, the San Francisco Bay Regional Water Quality Control Board's *San Francisco Basin Plan*, and the San Francisco Bay Conservation and Development Commission's *San Francisco Bay Plan*. Based on the location, size, and nature of the proposed project, no anticipated conflicts with regional plans would occur.

C.3 Required Approvals by Other Agencies

See section A, Project Description, for a list of required project approvals.

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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.

☐ Land Use/Planning	☐ Greenhouse Gas Emissions	☐ Hydrology/Water Quality
☐ Aesthetics	☐ Wind	☐ Hazards & Hazardous Materials
☐ Population and Housing	☐ Shadow	☐ Mineral Resources
☒ Cultural Resources	☐ Recreation	☐ Energy
☒ Tribal Cultural Resources	☐ Utilities /Service Systems	☐ Agriculture and Forestry Resources
☐ Transportation and Circulation	☐ Public Services	☐ Wildfire
☒ Noise	☐ Biological Resources	☒ Mandatory Findings of Significance
☒ Air Quality	☒ Geology/Soils	

This initial study examines the proposed project to identify potential effects on the environment. For each item on the initial study checklist, the evaluation has considered the impacts of the proposed project both individually and cumulatively. 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 could not have a significant adverse environmental effect relating to that issue. 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 with "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 *Transportation Impact Analysis Guidelines for Environmental Review* or the California Natural Diversity Data Base and maps, published by the California Department of Fish and Wildlife. The items checked above have been determined to be "Less than Significant with Mitigation Incorporated."

Aesthetics and Parking

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

a) The project is in a transit priority area;

b) The project is on an infill site; and

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

The proposed project meets each of the above criteria; therefore, this initial study does not consider aesthetics or parking in determining the significance of project impacts under CEQA.[9]

E. EVALUATION OF ENVIRONMENTAL EFFECTS

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
1. LAND USE AND PLANNING. Would the project:					
a) Physically divide an established community?	☐	☐	☐	☒	☐
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?	☐	☐	☒	☐	☐

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

The division of an established community typically involves the construction of a physical barrier to neighborhood access, such as a new freeway, or the removal of a means of access, such as a bridge or a roadway. Implementation of the proposed project would not result in the construction of a physical barrier to neighborhood access or the removal of an existing means of access; it would result in the construction of a new building containing 143,900 square feet of laboratory space. Implementation of the proposed project would not alter the established street grid or permanently close any streets or sidewalks. Although portions of the sidewalks and vehicular lanes adjacent to the project site could be closed for periods of time during project construction, these closures would

[9] San Francisco Planning Department, *Eligibility Checklist for CEQA section 21099 Modernization of Transportation Analysis, 1111 Pennsylvania Avenue (2018-002951ENV)*, March 3, 2020, https://sfplanninggis.org/pim/, accessed June 3, 2021.

be temporary in nature. For these reasons, the proposed project would not physically divide an established community and thus would have no impact with respect to the division of an established community.

Impact LU-2: The proposed project 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 would be considered significant if the proposed project would conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. 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. Examples of such plans, policies, or regulations include the Bay Area Air Quality Management District's 2017 Clean Air Plan and the San Francisco Bay Regional Water Quality Control Board's San Francisco Basin Plan. As discussed in Section C, Compatibility with Existing Zoning and Plans, the proposed project would not substantially conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect including Article 10 of the San Francisco Planning Code, 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.3, Cultural Resources, Section E.7, Air Quality, Section E.8 Greenhouse Gas Emissions, and Section E.14, Biological Resources, respectively. Therefore, the proposed project would have a less-than-significant impact related to conflicts with land use plans, policies, or regulations.

Impact C-LU-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative land use impact. ***(Less than Significant)***

Cumulative development in the project vicinity (within an approximately quarter-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.

As previously discussed in the Project Setting, the nearby cumulative development projects would result in the construction of up to approximately 2,426 dwelling units and up to approximately 2.8 million sf of non-residential space. The nearby cumulative development projects would not physically divide an established community by constructing a physical barrier to neighborhood access or removing a means of access. Furthermore, these projects would not conflict with any adopted environmental plan or policy, including Article 10 of the San Francisco Planning Code, the 2017 Clean Air Plan, the San Francisco's GHG Reduction Strategy, and the San Francisco Urban Forestry Ordinance, as discussed in Section E.3, Cultural Resources, Section E.7, Air Quality, Section E.8, Greenhouse Gas Emissions, and Section E.14, Biological Resources, respectively. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects to create a significant cumulative land use impact.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
2.	**POPULATION AND HOUSING. Would the project:**					
a)	Induce substantial 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)?	☐	☐	☒	☐	☐
b)	Displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing?	☐	☐	☒	☐	☐

Impact PH-1: The proposed project would not directly or indirectly induce substantial unplanned population growth in an area. ***(Less than Significant)***

In general, a project would be considered growth-inducing if its implementation would result in substantial unplanned population growth or new development that might not otherwise occur without the project. The proposed project, which would result in the construction of a new 182,900-sf building providing 143,900 square feet of laboratory space, would not directly increase the residential population on the project site and would not substantially contribute to anticipated population growth in both the neighborhood and citywide contexts.

The 2010 U.S. Census reported a population of 805,235 persons in San Francisco and a population of 332 persons in Census Tract 9809, which includes the project site and its vicinity.[10] Implementation of the proposed project would not increase the residential population at the project site because the proposed project would provide no residential units.

Construction of the proposed project would result in up to 100 temporary employees on the project site for the duration of the construction period.[11] Operation of the proposed non-life science lab would result in approximately 550-700 permanent employees on the project site.[12] Implementation of the proposed project would not induce substantial growth or concentration of employment that would cause a substantial adverse physical change to the environment.

The proposed project would be consistent with San Francisco General Plan objectives and policies and Association of Bay Area Governments (ABAG) priority development area goals and criteria; it is located on an infill site, is served by existing transit, and is in an area containing a mix of

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10 U.S. Census Bureau, *Total-Population, 2010: ACS 5-Year Estimates Detailed Table*, https://data.census.gov/cedsci/map?q=United%20States&g=0100000US_1400000US06075980900&tid=ACSDT5Y2010.B01003&hidePreview=false&vintage=2010&layer=VT_2010_140_00_PY_D1&cid=B01003_001E, accessed August 7, 2020.

11 Will Mollard, Principal, Workshop1, Project Sponsor, Email to Kei Zushi, Senior Environmental Planner, San Francisco Planning Department, *Information Confirmation Request: 1111 Pennsylvania Avenue Project (Case No. 2018-002951ENV)*, July 14, 2021, https://sfplanninggis.org/pim/, accessed July 21, 2021.

12 *Ibid.*

moderate density housing, services, retail, employment, and civic or cultural uses. Furthermore, as discussed in Section E.12, Utilities and Service Systems, and Section E.13, Public Services, the population growth generated under the proposed project would not require the expansion of infrastructure or services that would cause adverse physical impacts. Therefore, the proposed project's estimated population growth would not constitute substantial unplanned growth.

In summary, the proposed project would not directly or indirectly induce substantial population growth or concentration of employment in the project vicinity or citywide such that an adverse physical change to the environment would occur. This impact would be less than significant, and no mitigation measures are necessary.

Impact PH-2: The proposed project would not displace substantial numbers of existing housing units or people necessitating the construction of replacement housing. *(Less than Significant)*

The proposed project would not displace substantial numbers of existing housing units, because there are no existing housing units on the project site. Implementation of the proposed project would not result in the need to construct replacement units to house substantial numbers of people. This impact would be less than significant, and no mitigation measures are necessary.

Impact C-PH-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to population and housing. *(Less than Significant)*

The cumulative context for population and housing effects are typically citywide. Over the last several years, the supply of housing has not met the demand for housing in San Francisco. In December 2013, the ABAG projected regional housing needs in the *Regional Housing Need Plan for the San Francisco Bay Area: 2015-2023*. According to this report, the housing growth need of San Francisco for 2015 through 2023 is 28,869 dwelling units: 6,234 units in the very low income level (0 to 50 percent of the area median income); 4,639 units in the low income level (51 to 80 percent); 5,460 units in the moderate income level (81 to 120 percent); and 12,536 units in the above moderate income level (120 percent and higher).[13] These numbers are consistent with the development pattern identified in *Plan Bay Area 2040*, a state-mandated, integrated long-range transportation, land use, and housing plan.[14] As part of the planning process for Plan Bay Area, San Francisco identified priority development areas, which consist of areas where new

[13] ABAG, *Regional Housing Need Plan, San Francisco Bay Area, 2015-2023*, July 2013. On May 20, 2021, the ABAG Executive Board approved the Final Regional Housing Needs Allocation (RHNA) Methodology and Draft Allocations. ABAG is scheduled to conduct public hearings to consider appeals and comments regarding the draft allocations in September and/or October 2021. According to the draft allocations, the housing growth need of San Francisco for 2023-2031 is 82,069 dwelling units: 20,867 units in the very low income level (less than 50 percent of the area median income); 12,014 units in the low income level (50 to 80 percent); 13,717 units in the moderate income level (80 to 120 percent); and 35,471 units in the above moderate income level (higher than 120 percent). ABAG, Regional Housing Needs Allocation, *https://abag.ca.gov/our-work/housing/rhna-regional-housing-needs-allocation*, accessed June 22, 2021.

[14] Metropolitan Transportation Commission and ABAG, *Plan Bay Area: 2040*, July 26, 2017, *http://2040.planbayarea.org/*, accessed January 12, 2018.

development will support the day-to-day needs of residents and workers in a pedestrian-friendly environment served by transit. Although the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would indirectly increase the population in the area, it would not induce substantial population growth beyond that already anticipated to occur. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact related to population and housing.

Topics:		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
3.	**CULTURAL RESOURCES. Would the project:**					
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5, including those resources listed in article 10 or article 11 of the San Francisco Planning Code?	☐	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐	☐
c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐

Impact CR-1: The proposed project would not cause a substantial adverse change in the significance of a historical resource. ***(Less than Significant)***

Historical resources are those properties that meet the definitions in section 21084.1 of the CEQA statute and section 15064.5 of the CEQA Guidelines. Historical resources include properties listed in, or formally determined eligible for listing in, the California Register of Historical Resources or in an adopted local historic register. Historical resources also include resources identified as significant in a historical resource survey meeting certain criteria. Additionally, properties that are not listed but are otherwise determined to be historically significant, based on substantial evidence, would also be considered historical resources. The significance of a historical resource is materially impaired when a project "demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance ..."[15]

The project site currently contains no existing structures. Thus, the implementation of the proposed project would not result in modification or demolition of a historic structure. In addition, there are no known off-site historical resources that would be adversely impacted by the proposed project. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource. This impact would be less than significant, and no mitigation measures are necessary.

[15] CEQA Guidelines 15064.5(b)(2)(A).

Impact CR-2: The proposed project could cause a substantial adverse change in the significance of an archeological resource. ***(Less than Significant with Mitigation)***

Determining the potential for encountering archeological resources is based on factors such as the pre-development environmental setting, history of past development, location, depth, and amount of excavation proposed as well as any recorded information on known resources in the area. Construction of the proposed project would require excavation to a depth of approximately 12 feet below grade (slightly greater for elevator pit) and drilled displacement soil improvement columns to 22 feet below ground surface and the removal of about 8,540 cubic yards of soil. The planning department conducted a preliminary archeological review and determined that the project site is highly sensitive for near-surface prehistoric resources.[16]

Based on the topography of the site and adjacent parcels and streets, there has been substantial cut and fill on and around the project site, which may have removed near-surface resources. However, geotechnical coring results included in the geotechnical report[17] prepared for the proposed project indicate that native soils are present at 10 to 13 feet below ground surface in the eastern and southeastern portions of the project site. In this area, and in other areas where native soils are present under modern fill, there is the potential for prehistoric archeological deposits to be present and below native soil surfaces to the full depth of proposed soil disturbance (that is, approximately 22 feet below surface). There also may be the potential for buried late 19th or early 20th century historic-period resources to be present on native soil surfaces, where present.

The project sponsor would be required to implement Mitigation Measure M-CR-2: Archeological Testing, as described below, to reduce the potential impact on archeological resources. Archeological testing, followed by archeological monitoring during construction if warranted based on testing results, with data recovery for discovered resources that cannot be preserved, reporting and, where appropriate, public interpretation, would preserve and realize the information potential of archeological resources. The recovery and documentation of information about archeological resources that may be encountered within the project site would enhance knowledge of prehistory and history. This information would be available to future archeological studies, contributing to the collective body of scientific and historic knowledge.

Mitigation Measure M-CR-2: 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 archaeological consultant from the rotational department Qualified Archaeological Consultants List (QACL) maintained by the planning department archaeologist. After the first project approval action or as directed by the Environmental

[16] San Francisco Planning Department, *Environmental Planning Preliminary Archeological Review, 1111 Pennsylvania Avenue*, August 1, 2018, updated May 7, 2020 and August 18, 2020.

[17] Rockridge Geotechnical, *Geotechnical Investigation, Proposed Industrial Building, 1111 Pennsylvania Avenue, San Francisco, California*, April 1, 2019, *https://sfplanninggis.org/PIM/*, accessed June 2021.

Review Officer (ERO), the project sponsor shall contact the department archeologist to obtain the names and contact information for the next three archeological consultants on the QACL. 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 ERO. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines section 15064.5 (a) and (c).

Consultation with Descendant Communities. On discovery of an archeological site[18] associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group an appropriate representative[19] of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO 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 Archaeological Resources Report shall be provided to the representative of the descendant group.

Archeological Testing Program. The archeological consultant shall prepare and submit to the ERO for review and approval an archeological testing plan (ATP). The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that 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 ERO. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be

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

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

present, the ERO 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 ERO or the planning department archeologist.

If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, the ERO, 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 ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archeological Monitoring Program (AMP). If the ERO in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented the archeological monitoring program shall minimally include the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO 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 archaeological 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 ERO until the ERO has, in consultation with project archeological consultant, determined that project construction activities could have no effects on significant archeological deposits;
- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archeological deposit is encountered, all 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. If in the case of pile driving or deep foundation activities (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving or deep foundation activities may affect an archeological resource, the pile driving or deep foundation activities shall be terminated until an appropriate evaluation

of the resource has been made in consultation with the ERO. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, and present the findings of this assessment to the ERO.

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

Archeological Data Recovery Program. The archeological data recovery program shall be conducted in accord with an archeological data recovery plan (ADRP). The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected 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 ADRP shall include the following elements:

- *Field Methods and Procedures*. Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis*. Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy*. Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program*. Consideration of an on-site/off-site public interpretive program during the course of the 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 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 (MLD). The MLD 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 (CEQA section 5097.98). The ERO also shall be notified immediately upon the discovery of human remains.

The project sponsor and ERO shall make all reasonable efforts to develop a Burial Agreement ("Agreement") with the MLD, 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 MLD agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archaeological 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 ERO to accept treatment recommendations of the MLD. However, if the ERO, project sponsor and MLD are unable to reach an Agreement on scientific treatment of the remains and associated or unassociated funerary objects, the ERO, 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 archaeological treatment documents, and in any related agreement established between the project sponsor, Medical Examiner and the ERO.

Final Archeological Resources Report. The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. The Draft FARR shall include a curation and deaccession plan for all recovered cultural materials. The Draft FARR shall also include an Interpretation Plan for public interpretation of all significant archeological features.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, the consultant shall also prepare a public distribution version of the FARR. Copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The environmental planning division of the planning

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

With the implementation of Mitigation Measure M-CR-2, as described above, the proposed project would result in a less-than-significant impact on archeological resources.

Impact CR-3: The proposed project could disturb human remains. ***(Less than Significant with Mitigation)***

There are no known human remains or burial sites in the project vicinity. However, there is the potential for human remains to be present at the project site, either in the context of an archaeological deposit or in isolation. In the unlikely event that human remains are encountered archeological testing or during construction, any inadvertent damage to human remains would be considered a significant impact. In order to reduce this potential impact to a less-than-significant level, the project sponsor would be required to implement Mitigation Measure M-CR-2, Archeological Testing, which includes required procedures for the treatment of human remains. With implementation of Mitigation Measure M-CR-2, as described above, the proposed project would have a less-than-significant impact on previously unknown human remains.

Impact C-CR-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in cumulative impacts on cultural resources. ***(Less than Significant with Mitigation)***

Impacts on historical resources and archeological resources are generally resource-specific and limited to resources that are within or extend within the construction area of an individual development project. There are no historical resources or known archeological sites on the project site or its immediate vicinity, nor are there other cumulative projects in the project site's immediate vicinity. Therefore, no cumulative impact would occur.

As discussed under Impact CR-1, the proposed project would not cause a substantial adverse change in the significance of a historical resource under CEQA. In addition, as discussed under Impacts CR-2 and CR-3, with the implementation of Mitigation Measure M-CR-2: Archeological Testing, the proposed project would result in a less-than-significant impact on archeological resources and previously unknown human remains. For this reason, the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact on significant cultural resources should one be identified in the future. Therefore, this impact would be less than significant with implementation of the previously identified mitigation.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
4. TRIBAL CULTURAL RESOURCES. 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	☐	☒	☐	☐	☐
	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.	☐	☒	☐	☐	☐

Impact TC-1: The proposed project could cause a substantial adverse change in the significance of a tribal cultural resource. ***(Less than Significant with Mitigation)***

CEQA section 21074.2 requires the lead agency to consider the effects of a project on tribal cultural resources. As defined in section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, in a national, state, or local register of historical resources.

Pursuant to Assembly Bill 52, effective July 1, 2015, within 14 days of a determination that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency is required to contact the Native American tribes that are culturally or traditionally affiliated with the geographic area in which the project is located. Notified tribes have 30 days to request consultation with the lead agency to discuss potential impacts on tribal cultural resources and measures for addressing those impacts.

On March 10, 2020, the planning department mailed a "Tribal Notification Regarding Tribal Cultural Resources and CEQA" to the appropriate local Native American tribal representatives who have requested notification. During the 30-day comment period, no Native American tribal representatives contacted the planning department to request consultation.

However, based on prior general consultation under AB 52, the planning department considers all archeological resources of Native American origin to be potential tribal cultural resources. Local Native American representatives agreed that preservation in place is preferred for such resources. However, if preservation in place is determined to be infeasible due to project design considerations or for other reasons, the preferred treatment is archeological data recovery followed by public interpretation of the resource, developed and implemented in consultation with local Native American representatives.

As discussed under Impact CR-2, the project site is in an archeologically sensitive area with the very high potential for prehistoric archeological resources, which may be considered tribal cultural resources. In the event that construction activities encounter unknown archeological sites that are considered tribal cultural resources, any inadvertent damage would be considered a significant impact. Thus, the project would be required to implement Mitigation Measure M-TC-1: Tribal Cultural Resources Archeological Resources Preservation Plan and/or Interpretive Program, as described below.

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

> In the event of the discovery of an archaeological resource of Native American origin, the Environmental Review Officer (ERO), 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 (TCR) 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 to ensure the permanent protection of the resource.
>
> 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 the project archeologist, shall prepare an interpretive program of the TCR in consultation with affiliated Native American tribal representatives and the project sponsor. 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, artifacts displays and educational panels or other informational displays. Upon approval by the ERO and prior to project occupancy, the interpretive program shall be implemented by the project sponsor.

Implementation of Mitigation Measure M-TC-1 would mitigate the potential impact to tribal cultural resources by preserving the resource and/or the values it represents and conveying those values to the public. With implementation of Mitigation Measure M-TC-1, as described above, the proposed project would result in a less-than-significant impact on tribal cultural resources.

Impact C-TC-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in cumulative impacts on tribal cultural resources. ***(Less than Significant with Mitigation)***

Impacts on tribal cultural resources are generally site-specific and limited to resources that extend into the construction area of an individual development project. There are no known tribal cultural resources in the project site's immediate vicinity, nor are there any cumulative projects in the immediate vicinity. Therefore, no cumulative impact would occur. With the implementation of Mitigation Measure M-TC-1, as described above, the proposed project would not make a cumulatively considerable contribution to any future cumulative impact on tribal cultural resources. Therefore, this impact would be less than significant with mitigation.

Topics:		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
5.	**TRANSPORTATION AND CIRCULATION— 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?	☐	☐	☒	☐	☐
b)	Create potentially hazardous conditions for people walking, bicycling, or driving or public transit operations?	☐	☐	☒	☐	☐
c)	Interfere with accessibility of people walking or bicycling to and from the project site, and adjoining areas, or result in inadequate emergency access?	☐	☐	☒	☐	☐
d)	Substantially delay public transit?	☐	☐	☒	☐	☐
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?	☐	☐	☒	☐	☐
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?	☐	☐	☒	☐	☐
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?	☐	☐	☒	☐	☐

The discussion of transportation and circulation impacts provided below is based on the transportation coordination memo prepared for the proposed project.[20]

The proposed project would satisfy the eligibility criteria for a "transit-oriented infill project" under CEQA section 21099(d)(1) because it would meet the definition of an employment center; would be located on an infill site; and would be located within a transit priority area.[21] Therefore, the proposed project would be exempt from an analysis of impacts on (automobile) parking under CEQA. Furthermore, the proposed project 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 is not discussed further in this initial study.

Transportation Setting

The project site has frontages along Pennsylvania Avenue, 25th Street, and Iowa Street unimproved right-of-way. The abutting parcel to the south includes an on-ramp to southbound I- 280 lanes. The fronting portions of Pennsylvania Avenue and 25th Street are not part of the High Injury Network.[22] The San Francisco General Plan does not classify Pennsylvania Avenue or 25th Avenue as a Transit Preferential Street or Transit Important Street. The Better Streets Plan[23] classifies the segment of Pennsylvania Avenue in the project site vicinity as an Industrial Street, 25th Street west of the Pennsylvania Avenue/25th Street intersection as a Neighborhood Residential Street, and 25th Street east of the Pennsylvania Avenue/25th Street intersection as an Industrial Street.

The proposed project is estimated to be operational in 2023 or 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 is operational.

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20 Kei Zushi, San Francisco Planning Department, *Transportation Coordination Memo, 1111 Pennsylvania Avenue, Planning Department Case No. 2018-002951ENV*, March 8, 2021, *https://sfplanninggis.org/PIM/*, accessed May 2021.

21 San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 Modernization of Transportation Analysis, 1111 Pennsylvania Avenue, Planning Department Case No. 2018-002951ENV*, March 3, 2021, *https://sfplanninggis.org/PIM/*, accessed May 2021.

22 The City and County of San Francisco adopted Vision Zero as a policy in 2014, with the goal of zero traffic deaths for all ways people travel, including people in vehicles, walking, and bicycling. The network identifies streets in San Francisco where most severe and fatal injuries are concentrated. The network helps the City target traffic safety investments to reduce severe and fatal injuries to people walking, bicycling, and driving in those locations.

23 San Francisco Planning Department, *Better Streets Plan*, *https://sfplanning.org/resource/better-streets-plan*, accessed February 2021.

Roadways. Neither Pennsylvania Avenue, nor 25th Street, has a San Francisco General Plan designation. The street segments of Pennsylvania Avenue and 25th Street that front the project site are designated as Industrial Streets in the Better Streets Plan.

Bicycle Facilities. The designated bikeway nearest to the project site is a class III bikeway[24] along Indiana Street (north-south), approximately one block to the east from the project site. Other designated bikeways in the project vicinity include a class II bikeway[25] along Cesar Chavez Street (west-east) and a class III bikeway along Minnesota Street (north-south).

Pedestrian Facilities. All streets in the project vicinity, including the street segments of Pennsylvania Avenue and 25th Street that abut the project site, have sidewalks on both sides of the street. The existing sidewalks fronting the project site on Pennsylvania Avenue and 25th Street are 16 feet and 10 feet in width, respectively.

Transit. The project site is located in the southern half of the Potrero Hill neighborhood and served by local and regional transit services. The project site is within one-half mile of the 22nd Street Caltrain station. Caltrain provides passenger rail service on the Peninsula between San Francisco and Downtown San Jose with several stops in San Mateo County and Santa Clara County. There are two existing Muni bus stops located on the southwest and northwest corners of the Pennsylvania Avenue/25th Street intersection (i.e., across the street from the project site). These stops are used by Muni route 48 Quintara/24th Street,[26] which in the vicinity of the project site travels south on Pennsylvania Avenue before turning right at the Pennsylvania Avenue/25th Street intersection to travel west on 25th Street.

Emergency Access. There are no emergency service providers in the vicinity of the project site. The project site is located within the Bayview District of the San Francisco Police Department (police department), and the nearest police station is located at the southwest corner of the 3rd Street/20th Street intersection, approximately 0.7 mile from the project site.[27] The fire station closest to the project site is Fire Station #25, which is located at 3305 3rd Street.[28] The hospital closest to the project site is San Francisco General Hospital, which is located at 1001 Potrero Avenue.[29]

Loading. There are two existing curb cuts (each is approximately 33 feet in width), no existing metered parking spaces, and no designated loading spaces along the project frontage on Pennsylvania Avenue. There are two existing curb cuts (each is approximately 20 feet in width), a

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[24] Class III bikeway provides a right-of-way designated by signs or permanent markings and shared with pedestrians or motorists.

[25] Class II bikeway is a portion of road reserved for the preferential or exclusive use of people biking, indicated by road markings.

[26] As a result of the COVID-19 pandemic, as of May 2021, Route 48 is active but will operate a shortened route between Potrero Hill and West Portal.

[27] San Francisco Police Department, Station Finder, *https://www.sanfranciscopolice.org/your-sfpd/sfpd-stations/station-finder*, accessed May 2021.

[28] San Francisco Fire Department, Fire Station Locations, *https://sf-fire.org/fire-station-locations*, accessed May 2021.

[29] San Francisco Planning Department, Property Information Map, *https://sfplanninggis.org/PIM/map.html?layers=Hospitals*, accessed May 2021.

total of nine existing on-street metered parking spaces, and no designated loading spaces along the project frontage on 25th Street.

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 (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 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.[30,31,32]

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.[33]

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),[34] 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),[35,36] 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

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

31 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.

32 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.

33 San Francisco Planning Department, *San Francisco Transportation Information Map*, https://sfplanninggis.org/TIM/, accessed May 2021. Note: Regional values on the website are given as VMT minus 15 percent, the values stated here are the total regional values.

34 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.

35 OPR, Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018, *https://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf*, accessed April 2021.

36 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.

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 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.[37] 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.

[37] 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.

Average Daily Vehicle Miles Traveled Summary

Table 2 presents the existing average daily VMT per office employee for the nine-county San Francisco Bay Area and for TAZ 483, the zone in which the project site is located. Office is presented as a proxy for the proposed project's non-life science laboratory use. This is because trips associated with laboratory uses typically function similarly to office uses, given that trips associated with both laboratory and office uses are influenced by the origin (e.g., home) and/or ultimate destination (e.g., work). The existing average daily VMT per employee for office uses in TAZ 483 (14.7 miles) is approximately 33 percent lower than the regional Bay Area average (19.1 miles).

TABLE 2: AVERAGE DAILY VEHICLE MILES TRAVELED IN TAZ 483 (EXISTING)

Land Use	Bay Area Regional Average	Bay Area Regional Average Minus 15% (Significance Threshold)	TAZ 483
Office	19.1	16.2	14.7

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

Project Travel Demand

The proposed project would meet the criteria for map-based screening of office projects and proximity to transit stations. Office is presented as a proxy for the proposed project's non-life science laboratory use. 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 were calculated using a trip-based analysis and information included in the SF Guidelines.[38] These trips are summarized in Table 3. 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.

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[38] San Francisco Planning Department, Travel Demand Tool, *https://sftraveldemand.sfcta.org/*, accessed May 2021.

TABLE 3: PROPOSED PROJECT TRAVEL DEMAND

Trip Mode	Daily Person Trips	PM Peak Hour Person Trips		
		Inbound	Outbound	Total
Auto	846	13	62	75
Taxi/TNC	251	4	18	22
Public Transit	421	1	37	38
Walk	387	4	30	34
Bike	63	1	5	6
Total Person Trips	1,968	23	152	175
Vehicle Mode	**Daily Vehicle Trips**	**PM Peak Hour Vehicle Trips**		
		Inbound	**Outbound**	**Total**
Auto	743	12	55	67
Taxi/TNC	167	3	12	15
Total Vehicle Trips	**910**	**15**	**67**	**82**

As shown in Table 3, the proposed project would generate 1,968 person trips on a daily basis and 175 person trips during the weekday p.m. peak hour. Of those trips, approximately 910 daily and 82 p.m. peak hour trips would be vehicle trips (i.e., auto, TNC/taxi).

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

Construction

Construction of the proposed project 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 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)***

The project construction is anticipated to occur over approximately 22.5 months in seven phases including demolition, site preparation, grading, shoring and foundation, building construction, architectural coatings, and paving. The project construction would not involve construction during nighttime hours between 8 p.m. and 7 a.m. The project's estimated construction duration is below the planning department's transportation-related construction impact screening criterion of 30

months.[39] Thus, the proposed project is presumed to result in a less-than-significant transportation-related construction impact.

The project sponsor anticipates that all parking for construction workers and material deliveries would occur on the project site. The project sponsor also anticipates that the northbound lane closest to the sidewalk on Pennsylvania Avenue and the eastbound lane on 25th Street would close for a maximum period of up to a total of 15 working days over the 19 months of the building construction phase (approximately 18 months) and paving phase (approximately two weeks). In general, construction trucks would utilize I-280 traveling to and from the project site.[40]

During the proposed project construction, the maximum daily trip generation is expected to occur during the grading phase, generating an average of 234 daily trips including 129 construction truck trips, or 194 PCE trips,[41] plus 40 employee trips per day. The grading phase is estimated to generate 78 trips during both the a.m. and p.m. peak hours. The maximum peak hour trip generation, which would occur during the building construction phase, is estimated to average 217 daily trips including 11 truck trips, or 17 PCE trips, plus 200 employee trips per day. The building construction phase is estimated to generate 105 trips during both the a.m. and p.m. peak hours.[42]

During the project construction, there would be a flow of construction-related trucks to and from the project site, which could result in temporary lower capacities of local streets in the project site vicinity due to the slower movement and larger turning radii of trucks. Construction activities would also generate construction worker trips to and from the project site and temporary demand for vehicle parking and public transit. Changes to the transportation circulation network in the project area related to construction activities would be temporary and of limited duration.

The San Francisco Regulations for Working in San Francisco Streets (the Blue Book)[43,44] contain regulations that are prepared and regularly updated by SFMTA under the authority derived from

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39 San Francisco Planning Department, *Appendix N to the Transportation Impact Analysis Guidelines for Environmental Review*, October 2019, *https://sfplanning.org/project/transportation-impact-analysis-guidelines-environmental-review-update#impact-analysis-guidelines*, accessed May 2021.

40 W-Trans, *Construction Truck Routing and Travel Demand for 1111 Pennsylvania Avenue (Planning Department Case No. 2018-002951ENV)*, February 2, 2021, *https://sfplanninggis.org/PIM/*, accessed February 2021.

41 The passenger car equivalent (PCE) for trucks on level terrain is 1.5 according to the Highway Capacity Manual, Transportation Research Board, 2010. This means that each truck has the effect of one and a half passenger cars on a roadway due to longer start up times at intersections and when making turns.

42 W-Trans, *Construction Truck Routing and Travel Demand for 1111 Pennsylvania Avenue (Planning Department Case No. 2018-002951ENV)*, February 2, 2021, *https://sfplanninggis.org/PIM/*, accessed February 2021.

43 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*, accessed February 2021.

44 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, accessed February 2021.

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 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 SFTMA or public works are required for the project.

Should the proposed project'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,[45] 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.

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.[46] 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

[45] 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*, accessed February 2021.

[46] *Ibid.*

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.[47]

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.[48]

The construction contractor would also be required to adhere to the San Francisco Public Works Code[49] 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[50] 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,[51] 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

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47 *Ibid.*

48 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.

49 San Francisco Public Works Code, *https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_publicworks/0-0-0-2*, accessed February 2021.

50 The public corks 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.

51 San Francisco Public Works, *Guidelines for the Placement of Barricades at Construction Sites (Order No.167,840), 2008*, *http://sfpublicworks.org/sites/default/files/Guidelines_for_Placement_of_Barricades_0.pdf*, accessed June 24, 2020.

the California Department of Transportation, the port, or the San Francisco Recreation and Park Department.

All proposed lane or street closures and construction truck routes plan associated with the project construction would be reviewed by the SFMTA through the special traffic permit review process to ensure that the project construction would not create potentially hazardous conditions for people walking, bicycling, or driving, would not substantially interfere with emergency access or accessibility for people walking or bicycling, and would not substantially delay public transit.

Therefore, the proposed project's construction-related impacts would be less than significant, and no mitigation measures would be required.

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

The proposed project would include design features that are consistent with the urban form of the surrounding blocks in the project site vicinity, which includes a mix of light industrial and residential uses. As shown in Table 3, the proposed project would generate 82 p.m. peak hour vehicle trips, including 67 private auto vehicle trips and 15 taxi/TNC vehicle trips. None of the streets in the project site vicinity is designated as a part of the Vision Zero[52] network. The proposed project would also generate six person trips by bicycle during the p.m. peak period onto the surrounding roadway network. This level of automobile traffic and people bicycling would neither represent a substantial increase in traffic, nor result in potentially hazardous conditions along any of the surrounding streets.

The proposed project 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. In addition, the proposed project would provide streetscape improvements, which would include the installation of two sidewalk bulbouts, one at the southwestern corner of the Pennsylvania Avenue/25th Street intersection and another at the southeastern corner of the same intersection; and the installation of two new ladder crosswalks, each on the east and south legs of the Pennsylvania Avenue/25th Street intersection.

Turn analyses have been performed to assess the movement of buses and trucks around the sidewalk bulb-outs proposed to be installed at the southwestern and southeastern corners of the

[52] 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).

Pennsylvania Avenue/25th Street intersection and the movement of trucks and passenger cars around the driveway proposed to be widen on 25th Street.[53]

The analyses show that an SU-30 truck,[54] SU-40 truck,[55] or 40-foot-long city bus traveling from the south on Pennsylvania Avenue and making a right turn into the eastbound lane on 25th Street would encroach into the westbound lane on 25th Street. To prevent these encroachments, the proposed sponsor proposed a preliminary striping plan on 25th Street near the Pennsylvania Avenue/25th Street intersection as depicted in Figure 3. The analyses also show that an SU-30 truck exiting the proposed driveway on 25th Street onto the eastbound lane on 25th Street would encroach into the westbound lane on the street. These encroachments into the opposing lanes would not create substantial traffic hazards because they would occur temporarily and the traffic volume on 25th Street would remain relatively low after the project is constructed.

The analyses also show that an SU-30 truck or SU-40 truck traveling from the west on 25th Street and making a right turn into the southbound lane on Pennsylvania Avenue would not encroach into the northbound lane on Pennsylvania Avenue. Further, the analyses show that passenger cars exiting the proposed driveway on 25th Street onto the eastbound lane on 25th Street would stay within the eastbound lane without encroaching into the westbound lane on the street.

Based on the discussion above, the proposed project would not exacerbate existing conditions or create a new potentially hazardous condition for people walking, bicycling, or driving, or public transit operations. Therefore, the proposed project would result in a less-than-significant impact with respect to potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations, and no mitigation measures would be required.

Impact TR-3: The proposed project 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)*

The proposed project would not construct any physical obstructions that would substantially obstruct sightlines between people walking or bicycling and people driving adjacent to the proposed project. As shown in Table 3, the proposed project would generate a total of 743 private auto vehicle trips, 167 TNC/taxi vehicle trips, 421 transit trips, 387 walk trips, and 63 person trips by bicycle on a daily basis. During the p.m. peak hour, the proposed project would generate an estimated 67 private auto vehicle trips, 15 TNC/taxi vehicle trips, 38 transit trips, 34 walking trips, and six person trips by bicycle.

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53 Kei Zushi, San Francisco Planning Department, *Transportation Coordination Memo, 1111 Pennsylvania Avenue, Planning Department Case No. 2018-002951ENV*, March 8, 2021, https://sfplanninggis.org/PIM/, accessed May 2021.

54 A truck with a wheel base between 22 to 30 feet.

55 A truck with a wheel base of 40 feet.

Pedestrian Facilities. As noted above in the *Transportation Setting* section, all streets in the project vicinity, including the street segments of Pennsylvania Avenue and 25th Street that abut the project site, have sidewalks on both sides of the street. The existing sidewalk along the project frontages on Pennsylvania Avenue and 25th Street are 16 feet and 10 feet in width, respectively. The project would not alter the widths of the existing sidewalks adjacent to the project site. The proposed project would provide streetscape improvements, which would include the installation of two sidewalk bulbouts, one at the southwestern corner of the Pennsylvania Avenue/25th Street intersection and another at the southeastern corner of the same intersection; and the installation of two new ladder crosswalks, each on the east and south legs of the Pennsylvania Avenue/25th Street intersection.

Bicycle Facilities. As noted above in the *Transportation Setting* section, Class III bicycle bikeways are currently provided on Indiana and Minnesota streets and a Class II bikeway is provided on Cezar Chavez Street adjacent to the project site. Implementation of the proposed project would not eliminate or reconfigure any of these existing bicycle facilities. As previously discussed, the proposed project would generate six p.m. peak hour bicycle trips. This relatively low number of person trips by bicycle would not substantially conflict with or result in unsafe conditions to nearby bicycle paths or facilities.

Emergency Access. As noted above in the *Transportation Setting* section, there are no emergency service providers in the vicinity of the project site. The proposed project would not include features that would inhibit emergency vehicle access. Therefore, the proposed project would not interfere with accessibility for emergency services.

Based on the discussion above, the proposed project would result in a less-than-significant impact with respect to accessibility for people walking or bicycling to and from the project site and adjoining areas or adequate of emergency access, and no mitigation measures would be required.

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

The proposed project would neither substantially alter facilities for public transit routes surrounding the project site, including Muni route 48 Quintara/24th Street, nor add driveways to streets with transit. As shown in Table 3, the proposed project would generate 82 p.m. peak hour vehicle trips, including 67 private auto vehicle trips and 15 Taxi/TNC vehicle trips. This level 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.

Therefore, the proposed project would result in a less-than-significant impact with respect to public transit delay, and no mitigation measures would be required.

Impact TR-5: The proposed project 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 2, the existing average daily VMT for TAZ 483, in which the project site is located, is 14.7 miles per employee for office uses. The existing average VMT is below the existing regional VMT per employee minus 15 percent, which is 16.2 miles. As noted previously under *Project Travel Demand*, office is presented as a proxy for the proposed project's non-life science laboratory use. The project site is located in an area of San Francisco where the existing VMT is more than 15 percent below the regional VMT. Thus, the proposed project would not result in a substantial increase in VMT.

The proposed project is not a transportation project, but would include transportation features such as a new driveway for the proposed parking garage, changes to color curbs, and pedestrian safety features (e.g., two bulb outs, crosswalks, etc.). 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 induce automobile travel or generate a substantial amount of VMT.

Based on the discussion above, the proposed project would result in a less-than-significant impact with respect to VMT, and no mitigation measures would be required.

Impact TR-6: The proposed project 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)***

Freight Loading. There are no existing designated on-street freight loading spaces along the project frontage on Pennsylvania Avenue or 25th Street. As presented in Table 1, the proposed project would provide two on-site freight loading space accessible from 25th Street. The proposed project would generate an estimated peak-hour[56] demand for two freight loading spaces. Thus, the project's freight loading demand could be accommodated in the two proposed on-site freight loading spaces.

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

Passenger Loading. There are no existing designated on-street passenger loading spaces along the project frontage on Pennsylvania Avenue or 25th Street. The project would replace four existing on-street metered parking spaces along the project frontage on 25th Street with three on-street passenger loading spaces (each would be approximately 22 feet in length), retain two existing on-

[56] For commercial vehicle loading, such as fright and delivery service vehicles, the peak period is between 11 a.m. to 2 p.m. per the SF Guidelines.

street metered parking spaces along the project frontage on the south side of 25th Street, and remove two existing parking spaces on the north side of 25th Street near the Pennsylvania Avenue/25th Street intersection.

The project is estimated to generate 15 vehicle trips, consisting of 3 inbound trips and 12 outbound trips, by taxi or transportation network company during the p.m. peak hour.[57] Under the SF Guidelines, it is assumed that an average stop duration is one minute and that half of the peak hour passenger loading demand occurs during the peak 15 minutes. Based on these assumptions, the project is estimated to generate the need for one passenger loading space in a given minute during the p.m. peak hour.[58] Thus, the project's passenger loading demand would be accommodated within the three on-street passenger loading spaces to be provided as part of the project and no passenger loading deficit would occur.

Therefore, the proposed project would not 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.

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.[59]

- Potrero Power Station Mixed-Use Development Project (Planning Department Case No. 2017-011878ENV): Redevelopment of an approximately 29-acre site with a variety of facilities. These facilities would include approximately 2,400 dwelling units, six acres of open space, 1.2 to 1.9 million square feet of non-residential uses, including office, research and development/life science, retail, hotel, and production, distribution, and repair (PDR), and 100,000 square feet of community facilities.

- 1401-1443 and 1499 Illinois Street & 700 25th Street Project (Planning Department Case No. 2018-000949ENV): Demolition of seven existing PDR buildings, totaling approximately 35,000 square feet, and construction of a 40-foot-tall, three-story-over-basement,

[57] For passenger vehicle loading, consisting of private and for-hire vehicles, the peak period is between 5 p.m. to 8 p.m. per the SF Guidelines.

[58] 15 (vehicle trips/spaces) divided by 2 divided by 15 minutes = 0.5 passenger loading space required per minute.

[59] Both the Potrero HOPE SF project (Planning Department Case No. 2010.0515E) and Pier 70 project (Planning Department Case No. 2014.001272ENV) have broken ground and thus are treated as existing projects as opposed to cumulative projects. Therefore, these two projects are not analyzed as cumulative projects in the cumulative impact analysis sections in this document.

approximately 350,000-sf building providing approximately 230,000 square feet of laboratory use and 35,500 square feet of light manufacturing use.

- 640 Cesar Chavez Street Project (Planning Department Case No. 2021-001111ENV): Construction of a new Cruise, LLC autonomous vehicle (AV) fleet maintenance and charging facility.

- 1901 Cesar Chavez Street Project (Planning Department Case No. 2019-015210ENV): Construction of an approximately 105,000-sf public utility yard for use by the San Francisco public utilities commission at the eastern end of the site, an 18,900-sf warehouse at the western end of the site, and an 8,400-sf modular structure containing accessory office space at the south end of the site.

- Muni Metro East Expansion / 601 25th Street Project (Planning Department Case No. 2019-014784ENV): Conversion of an existing four-acre construction staging area on the east portion of the site to an approximately 90,000-sf temporary bus surface storage area with associated facilities to be used by SFMTA. Up to 104 60-foot-long trolley buses or 143 40-foot-long trolley buses would be stored in the proposed storage area. These facilities would include an approximately 3,400-gsf bus wash station, 3,400-gsf fare collection building, and a 3,700-gsf administration building.

- 1033 Texas Street Project (Planning Department Case No. 2017-013051ENV): Relocation of an existing two-family residence, raising it to insert a new ground-level floor and rehabilitation of the building for use as a four-story, three-unit residential building including two three-bedroom residential units and one two-bedroom unit.

- 999 Texas Street Project (Planning Department Case No. 2018-015815ENV): Construction of an approximately 55-foot-tall, seven-story, 19,000-sf building providing 25 residential units.

- 1228 25th Street Project (Planning Department Case No. 2015-005968ENV): Removal of an existing approximately 3,800-sf storage yard with containers and construction of a 58-foot-tall (68 feet including the mechanical penthouse), five-story, 14,800-sf building providing 8,140 square feet of unfinished, flexible layout small enterprise workspaces (PDR use) on the second through fifth floors and 3,000 square feet of ground-floor retail space.

Impact C-TR-1: The proposed project, 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)*

The construction of the proposed project may occur concurrently with construction with one or more of the cumulative projects. As discussed in Impact TR-1, the construction for the 1111 Pennsylvania Avenue project would be required to comply with the Blue Book requirements and/or obtain a special traffic permit from the SFMTA. Similarly, each of the cumulative projects

would also be required to comply with the Blue Book requirements and/or obtain a special traffic permit from the SFMTA. Through the special traffic permit review process, SFMTA would ensure that the project construction, in combination with construction activities associated with the cumulative projects, would not create potentially hazardous conditions for people walking, bicycling, or driving, would not substantially interfere with emergency access and accessibility for people walking or bicycling, and would not substantially delay public transit.

Therefore, the proposed project, in combination with the cumulative projects, would result in less-than-significant transportation-related construction impacts under cumulative conditions.

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

Potentially Hazardous Conditions for People Walking, Bicycling, or Driving, or for Public Transit Operations. As discussed in Impact TR-2, the proposed project would not create potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations. The streetscape improvements proposed as part of the 1111 Pennsylvania Avenue project would include the installation of two sidewalk bulbouts, one at the southwestern corner of the Pennsylvania Avenue/25th Street intersection and another at the southeastern corner of the same intersection; and the installation of two new ladder crosswalks, each on the east and south legs of the Pennsylvania Avenue/25th Street intersection.

The Potrero Power Station Mixed-Use Development Project EIR[60] concluded that Potrero Power Station Mixed-Use Development project, which is located approximately 0.45 mile to the northeast of the proposed project site and estimated to generate 1,764 trips by people walking and bicycling, driving motorcycles, and taking taxis during the p.m. peak hour, would not create hazardous conditions with the implementation of Mitigation Measure M-TR-7: Improve Pedestrian Facilities at the Intersection of Illinois Street/22nd Street. This mitigation measure requires that the project sponsor for the Potrero Power Station Mixed-Use Development project to work with SFMTA to install a traffic signal, stripe marked crosswalks in the continental design, and construct or reconstruct ADA compliance curb ramps at the four corners at the Illinois Street/22nd Street intersection. Given the distance between the Potrero Power Station Mixed-Use Development project site and the proposed project site, the proposed project would not combine with the Potrero Power Station Mixed-Use Development project to create potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations.

Similarly, given the distance between the 640 Cesar Chavez Street project site and the proposed project site, which is approximately 0.5 mile, the proposed project would not combine with the 640

[60] San Francisco Planning Department, *Potrero Power Station Mixed-Use Development Project, Case No. 2017-011878ENV, Final Environmental Impact Report*, https://sfplanning.org/potrero-power-station#info, accessed May 2021.

Cesar Chavez Street project to create potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations.

Based on the discussion above, the proposed project, in combination with the cumulative projects, would result in less-than-significant impacts under cumulatively conditions with respect to potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations, and no mitigation measures are required.

Accessibility. As discussed in the existing plus project conditions discussed in Impact TR-3, the proposed project would not interfere with accessibility for people walking or bicycling or would not result in inadequate emergency access. The Potrero Power Station Mixed-Use Development Project EIR concluded that Potrero Power Station Mixed-Use Development project, which is located approximately 0.45 mile to the northeast of the proposed project site, would not result in inadequate emergency vehicle access. Given the distance between the 640 Cesar Chavez Street project site and the proposed project site, which is approximately 0.5 mile, the proposed project would not combine with the 640 Cesar Chavez Street project to substantially interfere with accessibility for people walking or bicycling or adequacy of emergency access.

Therefore, the proposed project, in combination with the cumulative projects, would result in less-than-significant impacts under cumulative conditions with respect to accessibility for people walking or bicycling or adequacy of emergency access, and no mitigation measures are required.

Public Transit Delay. As discussed under Impact TR-4, the proposed project would not substantially delay public transit, and thus the project would result in a less-than-significant impact with respect to public transit delay. Traffic volumes would incrementally increase in the project site vicinity as a result of implementation of the proposed project and cumulative projects. The nearest cumulative project, the 1228 25th Street project, is located approximately 200 feet to the northeast of the proposed project. The second nearest cumulative project, 999 Texas Street project, is located approximately 770 feet to the northwest of the project site.

The Potrero Power Station Mixed-Use Development Project EIR concluded that Potrero Power Station Mixed-Use Development project, which is located approximately 0.45 mile to the northeast of the proposed project site and estimated to generate 2,540 vehicle trips during the p.m. peak hour, would result in a significant and unavoidable impact on operations of Muni 22 Filmore even with the implementation of Mitigation Measure M-TR-5: Implement Measures to Reduce Transit Delay. This mitigation measure requires that the project sponsor for the Potrero Power Station Mixed-Use Development project implement transportation demand management measures to limit the number of project-generated vehicle trips during the p.m. peak hour to a maximum of 89 percent of the estimated values of each phases of the Potrero Power Station Mixed-Use Development project.

Muni 22 Fillmore buses travel on 16th Street. Given the distance between 16th Street and the proposed project site, which is approximately 0.95 mile, vehicle trips to be generated by the proposed project would not substantially interfere with the operations of Muni 22 Filmore. Further,

not all of the 82 p.m. vehicle trips to be generated by the proposed project would travel on the same streets as Muni 22 Fillmore buses, and thus in a way that would cause a substantial delay to the operations of Muni 22 Filmore. Based on the above, the proposed project would not combine with the Potrero Power Station Mixed-Use Development project substantially delay public transit.

Similarly, given the distance between the 640 Cesar Chavez Street project site and the proposed project site, which is approximately 0.5 mile, p.m. peak hour vehicle trips generated by the proposed project would not combine with the 640 Cesar Chavez Street project to substantially delay public transit.

Based on the above, the proposed project, in combination with the cumulative projects, would result in less-than-significant impacts with respect to public transit delay under cumulative conditions, 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 planning 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 associated maps to determine whether a project site's location is below the aforementioned VMT quantitative threshold of significance.

Table 4 presents the future (2040) average daily VMT per employee for office uses for the nine-county San Francisco Bay Area and TAZ 483, in which the proposed project is located. The future average daily VMT per employee for office uses in TAZ 483 (12.0 miles) is approximately 30 percent lower than the regional Bay Area average (17.1 miles). As noted previously under *Project Travel Demand*, office is presented as a proxy for the proposed non-life science laboratory use. Because the project site is in an area where the VMT for the land use in the proposed project is more than 15 percent below future 2040 regional averages, the proposed project'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 4: AVERAGE DAILY VEHICLE MILES TRAVELED IN TAZ 483 (CUMULATIVE 2040)

Land Use	Bay Area Regional Average	Bay Area Regional Average Minus 15% (Significance Threshold)	TAZ 483
Office	17.1	14.5	12.0

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

Loading. As discussed in Impact TR-6, the proposed project would not result in a freight or passenger loading deficit.

Freight Loading

The project, in combination with the cumulative projects, is estimated to generate a relatively low demand for freight loading. The nearest cumulative project, the 1228 25th Street project, is approximately 200 feet to the northeast of the proposed project. The second nearest cumulative project, 999 Texas Street project, is located approximately 770 feet to the northwest of the project site. Delivery drivers typically look for convenient locations to park and make their deliveries. Thus, delivery drivers would not park near the proposed project site to make commercial deliveries to users of the cumulative project sites, including the Potrero Power Station Mixed-Use Development and 640 Cesar Street projects. Furthermore, the proposed project would provide two freight loading spaces in an underground parking garage, which would sufficiently accommodate the need for the project's freight loading, as discussed in Impact TR-6. Therefore, the proposed project, in combination with the cumulative projects, would result in less-than-significant impacts with respect to freight loading under cumulative conditions, and no mitigation measures are required.

Passenger Loading

The proposed project, in combination with the cumulative projects, is estimated to add a relatively low volume of people arriving at and departing the project site via taxi or transportation network company. As discussed in Impact TR-6, the proposed project would replace four existing on-street metered parking spaces along the project frontage on 25th Street with three on-street passenger loading spaces (each would be approximately 22 feet in length), retain two existing on-street metered parking spaces along the project frontage on the south side of 25th Street, and remove two existing parking spaces on the north side of 25th Street near the Pennsylvania Avenue/25th Street intersection. The three passenger loading spaces would sufficiently accommodate the need for the proposed project's passenger loading. People arriving at or leaving a building or other destination typically do so as close to the entrance as possible. People being dropped off or picked up for uses at the cumulative project sites, including the Potrero Power Station Mixed-Use Development project and 640 Cesar Street project sites, would not use the on-street passenger loading spaces proposed as part of the proposed project. Therefore, the proposed project, in combination with the

cumulative projects, would result in less-than-significant impacts with respect to passenger loading under cumulative conditions, and no mitigation measures are required.

Based on the discussion above, the proposed project, in combination with the cumulative projects in the project site vicinity, would result in less-than-significant operation-related transportation and circulation impacts with under cumulative conditions, and no mitigation measures are required.

Topics:		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
6.	**NOISE. Would the project result in:**					
a)	Generation of 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?	☐	☒	☐	☐	☐
b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	☐
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?	☐	☐	☐	☐	☒

The project site is not located in the vicinity of a private airstrip or an airport land use plan area or within two miles of a public airport or public use airport. Therefore, Topic 6(c) is not applicable to this project.

NOISE

Noise is generally defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, hotels, libraries, daycare facilities, and residences are considered to be more sensitive to noise intrusion than other land uses.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. Although the decibel (dB) scale, a logarithmic scale,

is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called A-weighting, written as dB(A) and referred to as A-weighted decibels. There is a strong correlation between A-weighted sound levels and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

With respect to how humans perceive and react to changes in noise levels, a 1dB(A) increase is imperceptible, a 3 dB(A) increase is barely perceptible, a 5 dB(A) increase is clearly noticeable, and a 10 dB(A) increase is subjectively perceived as approximately twice as loud.[61] These subjective reactions to changes in noise levels were developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broadband noise and to changes in levels of a given noise source. These statistical indicators are thought to be most applicable to noise levels in the range of 50 to 70 dB(A), as this is the usual range of voice and interior noise levels.

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one source produces a sound pressure level of 70 dB(A), two identical sources would combine to produce 73 dB(A). The combined sound level of any number of sources can be determined using decibel addition.

NOISE-SENSITIVE RECEPTORS

Noise-sensitive receptors located within 1,000 feet of the project site include various residential units, including those located at 1468 25th Street, 1099 Mississippi Street, 1411 Indiana Street, 1325 Indiana Street, and 1305 Indiana Street, and Potrero-Terrace Nursery & School located at 1101 Connecticut Street, as listed in Table 5. The location of each of these noise-sensitive receptors are shown in Figure 15.

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[61] Egan, David M. 2007. Architectural Acoustics. J. Ross Pub., Pub 2007.

TABLE 5: NOISE-SENSITIVE RECEPTORS WITHIN 1,000 FEET OF PROJECT SITE

Sensitive Receptor within 900 feet from Project Site	Land Use Type	Approximate Distance from Project Site (ft)
1: 1468 25th St	Residential	250
2: 1099 Mississippi St	Residential	300
3: 1411 Indiana St	Residential	440
4: 1325 Indiana St	Residential	625
5: 1305 Indiana St	Residential	600
6: Potrero-Terrace Nursery & School (1101 Connecticut St)	Educational	1000

FIGURE 15: NOISE-SENSITIVE RECEPTORS WITHIN 1,000 FEET OF PROJECT SITE

VIBRATION

Vibration is like noise such that noise involves a source, a transmission path, and a receptor. While related to noise, vibration differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system that is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (PPVs) in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV.

VIBRATION-SENSITIVE RECEPTORS

In general, historic buildings are more susceptible to vibration as compared to buildings with modern construction. There are several known historic (category A) buildings and structures located within 300 feet of the project site. These buildings and structures include residential buildings located at 1468 25th Street, approximately 150 feet northwest of the project site, and a portion of Caltrain's tunnel located along Pennsylvania Avenue between 23rd Street and Cesar Chavez.

AMBIENT NOISE LEVELS

Areas which are not urbanized are relatively quiet, while areas which are more urbanized are noisier as a result of roadway traffic, industrial activities, and other human activities. Ambient noise levels can also affect the perceived desirability or livability of a development.

An environmental noise analysis was conducted to assess the proposed project's construction and operational noise impacts. The findings and recommendations are presented in a noise report[62] and summarized below. To approximate the ambient noise levels at the project site, data from recent ambient noise measurements performed near the project site were used.[63] This ambient noise data was obtained from the environmental noise report for the 800 Indiana Street project (Planning Case No. 2011.1374E) and shown in Table 6.

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[62] Shen, Milsom, Wilke, *Environmental Noise Analysis, 1111 Pennsylvania Avenue, San Francisco, California, Planning Department Case No. 2018-002951ENV*, January 5, 2021, *https://sfplanning.org/potrero-power-station#info*, accessed May 2021.

[63] The planning department determined that an on-site noise survey was not required for this noise report to determine the ambient noise levels at the project site. This is because the ambient noise level in an area changes in proportion to the traffic volume in the area and the traffic volume near the project site has substantially decreased due to the March 2020 shelter-in-place orders in San Francisco.

As shown in Table 6, approximate ambient noise levels surrounding the project site range from approximately 50.3 dBA (nighttime) to 77.0 dBA (daytime), and the primary source of ambient noise is traffic on I-280.

TABLE 6: EXISTING AMBIENT NOISE LEVELS[64]

Location ID	Noise Measurement Location	Lowest $Leq_{1\text{-}Hr}$[a]		Lowest L_{90}[b]	
		Daytime (7am-8pm)	Nighttime (8pm-7am)	Daytime (7am-8pm)	Nighttime (8pm-7am)
LT-1	On the roof of the building at 800 Indiana Street with clear line of sight to I-280	72.7 dBA	64.9 dBA	70.5 dBA	50.3 dBA
LT-2	At street level below I-280, immediately south of the building at 800 Indiana Street	62.0 dBA	53.8 dBA	N/A	N/A

Notes:

a. $Leq_{1\text{-}Hr}$ is the A-weighted equivalent continuous sound exposure level for one hour.
b. L_{90} is the A-weighted sound level exceeded during 90 percent of the measurement time.

ANALYTIC METHODOLOGY

Under CEQA, the noise analysis evaluates the project's noise sources to determine the impact of the proposed project on the existing ambient noise environment.

Construction Noise

Article 29 of the San Francisco Police Code regulates noise. Section 2907(a) of article 29 provides the following limitations for construction equipment:

> "Except as provided for in Subsections (b), (c), and (d) hereof, it shall be unlawful for any person to operate any powered construction equipment if the operation of such equipment emits noise at a level in excess of 80 dBA when measured at a distance of 100 feet from such equipment, or an equivalent sound level at some other convenient distance."

However, the police code does not specify quantitative noise limits for impact equipment or combined noise impacts from the simultaneous operation of multiple pieces of construction

[64] The ambient noise levels in this table are from the 800 Indiana Street project because of Covid-19. The planning department determined that an on-site noise survey was not required for the proposed project to determine the ambient noise levels at the project site. This is because the ambient noise level in an area changes in proportion to the traffic volume in the area and the traffic volume near the project site has substantially decreased due to the March 2020 and subsequent shelter-in-place orders in San Francisco.

equipment.[65] Therefore, the quantitative evaluation of construction noise effects is based on criteria in the Federal Transit Administration (FTA) guidelines[66] for residential land uses which is 90 dBA Leq.[67] The planning department also evaluates whether construction noise would result in an increase of 10 dBA over existing noise levels ("Ambient + 10 dBA") at sensitive receptors, which generally represents a perceived doubling of loudness. The quantitative analysis typically evaluates the noise levels from the simultaneous operation of multiple pieces of construction equipment. The quantitative criteria above are only part of the evaluation of construction noise. The evaluation also considers the duration and intensity of any quantitative noise exceedance.

The Federal Highway Administration Roadway Construction Noise Model (RCNM) was used to determine noise generated from the project's construction activities. The RCNM is used as the Federal Highway Administration's national standard for predicting construction noise. The RCNM analysis includes the calculation of noise levels (Lmax[68] and Leq) at incremental distances for a variety of construction equipment. The spreadsheet inputs include acoustical use factors, Lmax values, and Leq values at various distances depending on the ambient noise measurement location. The proposed project's construction noise levels were calculated for each phase of construction based on the equipment list provided by the project sponsor.

Operational Noise

Project-generated traffic would result in a significant noise impact if the proposed project increases the ambient noise levels by 5 dBA Ldn[69] where noise levels are within the city's "Satisfactory" category per the general plan's land use compatibility chart for community noise, which is 60 dBA Ldn. If existing or resulting with project noise levels are above the "Satisfactory" category, project-generated traffic noise that results in an increase of 3 dBA Ldn would be considered significant.

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65 Section 2907(b) exempts impact tools and equipment from the requirement in section 2907(a), provided that "such impact tools and equipment shall have intake and exhaust mufflers recommended by the manufactures thereof and approved by the director of public works or the director of building inspection as best accomplishing maximum noise attenuation, and that pavement breakers and jackhammers shall also be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers thereof and approved by the director of public works or the director of building inspection as best accomplishing maximum noise attenuation."

66 Federal Transit Administration (FTA). Transit Noise and Vibration Impact Assessment Manual, September 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*, accessed October 30, 2020.

67 The A-weighted equivalent continuous sound exposure level for a defined time.

68 The maximum sound level measured during the measurement period.

69 The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.

Because the ambient noise levels near the project site exceed 60 dBA Ldn,[70] the significance threshold used to analyze project-generated traffic noise for this project is 3 dBA.

Given the nature and size of the proposed project, potential increases in the ambient noise levels resulting from the traffic generated by the proposed project's operation were qualitatively analyzed. In addition, one 400-kW natural gas emergency generator would be installed on the roof of the proposed building. Given the limited operation, noise from the generator is analyzed qualitatively for the potential to increase ambient noise levels.

Noise from the proposed project's mechanical and HVAC systems would operate regularly and are therefore analyzed for compliance with sections 2909(b) and (d) of the noise ordinance. Section 2909 "Noise Limits" states the following:

> (b) Commercial And Industry Property Noise Limits. No person shall produce or allow to be produced by any machine, or device, music or entertainment or any combination of same, on commercial or industrial property over which the person has ownership or control, a noise level more than eight dBA above the local ambient at any point outside of the property plane. . . .
>
> (d) Fixed Residential Interior Noise Limits. 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 10:00 p.m. to 7:00 a.m. or 55 dBA between the hours of 7:00 a.m. to 10:00p.m. with windows open except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

The proposed project would not include sources of vibration during operations. Therefore, no operational vibration assessment is required.

IMPACT ANALYSIS

The following impact analysis is based on information provided in the noise report[71] prepared for the proposed project.

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[70] Shen, Milsom, Wilke, *Environmental Noise Analysis, 1111 Pennsylvania Avenue, San Francisco, California, Planning Department Case No. 2018-002951ENV*, January 5, 2021, *https://sfplanning.org/potrero-power-station#info*, accessed May 2021.

[71] *Ibid.*

CONSTRUCTION

Impact NO-1: Construction of the proposed project would result in a substantial temporary or periodic increase in ambient noise levels. ***(Less than Significant with Mitigation)***

The construction period for the proposed project would last for approximately 23 months and would not involve construction during nighttime hours, 8 p.m. to 7 a.m. No pile driving would be performed to construct the project. Construction activities associated with the proposed project would include seven phases including demolition, site preparation, grading, shoring and foundation, building construction, architectural coatings, and paving phases. The noise-producing equipment for each construction phase as provided by the project sponsor are shown in Table 7.

Each construction stage has its own mix of equipment and, consequently, its own noise characteristics. These various construction activities would change the character of the noise generated at the project site and, therefore, the ambient noise level as construction progresses.

The construction noise analysis considers the estimated noise levels at the nearest noise-sensitive receptors. The most noise-sensitive receptors impacted by the project's construction noise are residential land uses. Nearby non-residential land uses that are also typically associated with noise-sensitive operations (e.g., schools) are considered in this analysis. Existing noise-sensitive receptors within 1,000 feet of the project site boundary, associated land use types, and approximate distances from the project site are listed in Table 5.

The construction noise analysis evaluates noise from the two loudest pieces of construction equipment at sensitive receptor locations to determine if construction noise would exceed 90 dBA or be 10 dBA above the ambient noise level at nearby sensitive receptors. If it is found that the project's construction noise could exceed either of these noise levels, the evaluation considers the duration and severity of noise levels in determining whether the project would result in a significant noise impact.

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TABLE 7: TYPICAL MAXIMUM NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Equipment Type	FHWA Ref. Noise Level, dBA Lmax at 50 feet[a]	Proposed Project Construction Phase[b]						
		Demolition[c] (2 weeks)	Site Preparation (2 weeks)	Grading (3 weeks)	Shoring & Foundation (3 months)	Building Construction (15 months)	Architectural Coatings (2 months)	Paving (2 weeks)
Air Compressor	80						X	
Cement and Mortar Mixers	85				X			X
Concrete/ Industrial Saws	***90***	X		X				
Cranes	85					X		
Forklifts	84					X		
Graders	85		X					
Hoe Ram	***90***			X				
Jackhammer (Pavement Breaker)	85	X						
Pavers	85							X
Rubber Tired Dozers	85	X		X				
Rollers	85							X
Tractors/Loaders/ Backhoes	84	X	X	X	X	X		X

Notes:

a. Values in **bold** and *Italics* exceed the noise limit provided under the San Francisco Police Code Article 29 section 2907(a), which is 86 dBA at a distance of 50 feet from the source, which is equivalent to 80 dBA at 100 feet from the source.

b. "X" in the table indicates the equipment is used in the construction phase.

c. This phase includes the removal of existing shipping containers and removal of asphalt, paving, and fencing. There are no existing buildings on the project site.

Table 8 shows the worst-case construction noise levels for each phase of construction for the proposed project. As indicated above, the worst-case construction noise levels assume that the two loudest pieces of equipment from each construction phase are operating simultaneously. None of the construction phases would exceed the 90 dBA criteria at the nearest sensitive receptor, 1468 25th Street (residential). However, construction noise levels at the nearest sensitive receptors, 1468 25th Street (residential), during the demolition, grading, building construction, and paving phases would result in an increase of 10 dBA or more over existing ambient noise levels.

TABLE 8: COMBINED MAXIMUM CONSTRUCTION NOISE LEVELS

Construction Phase	Two Loudest Pieces of Equipment	1468 25th St (Residential) Distance from Project Site: 250 feet[1,2]			1411 Indiana St (Residential) Distance from Project Site: 440 feet[1,2]		
		Combined $Leq_{1\text{-}Hr}$[3]	Increase over Ambient	Exceeds FTA 90 dBA	Combined $Leq_{1\text{-}Hr}$[3]	Increase over Ambient	Exceeds FTA 90 dBA
Demolition	1. Concrete Saw 2. Jackhammer	***76 dBA***	**14 dB**	No	71 dBA	9 dB	No
Site Preparation	1. Graders 2. Tractor	71 dBA	9 dB	No	66 dBA	4 dB	No
Grading	1. Concrete Saw 2. Hoe Ram	***76 dBA***	**14 dB**	No	71 dBA	9 dB	No
Shoring and Foundation	1. Cement Mixers 2. Backhoe	68 dBA	6 dB	No	63 dBA	1 dB	No
Building Construction	1. Cranes 2. Rough Terrain Forklifts	***73 dBA***	**11 dB**	No	68 dBA	6 dB	No
Architectural Coatings	1. Air Compressors 2. N/A	60 dBA	**-**	No	55 dBA	-	No
Paving	1. Cement and Mortar Mixers 2. Rollers	***73 dBA***	**11 dB**	No	69 dBA	7 dB	No

Note:

1. Distance between the center of the project site and the receiving property line per 2018 FTA Transit Noise and Vibration Impact Assessment Manual Eq. 7-1.
2. Ambient noise levels at these sensitive receptors are assumed to be the same as those measured on the ground at 800 Indiana Street. This is reasonable and conservative considering highway noise is estimated to be as low as 64 dBA Leq at the upper floors of these buildings due to increased setback from the highway, without accounting for contributions from local traffic.
3. Predicted noise level is for the listed construction equipment only. Thus, the estimated noise level during the architectural coatings phase is below the daytime ambient noise level at 1468 25th Street and 1411 Indiana Street, which is assumed to be 62 dBA in this report.
4. Values in **bold** and *Italics* exceed the required noise limit.

Because construction noise levels at the nearest sensitive receptor during the demolition, grading, building construction, and paving phases would result in an increase of 10 dBA or more over existing ambient noise levels for a substantial duration of the overall construction period, Mitigation Measure M-NO-1: Construction Noise has been identified to minimize construction related noise effects due to construction activities.

Mitigation Measure M-NO-1: Construction Noise Control

Prior to issuance of the first construction document or any demolition, grading or shoring permits the property owner shall submit a project-specific construction noise control plan to the ERO or the ERO's designee for approval. The construction noise control plan shall be prepared by a qualified acoustical engineer, with input from the construction contractor, and include all feasible measures to reduce construction noise. The construction noise control plan shall identify noise control measures to meet a performance target of not increasing noise levels from construction activities by more than 10 dBA above the ambient noise level at noise sensitive receptors. The property owner shall ensure that requirements of the construction noise control plan are included in contract specifications. The plan shall also include measures for notifying the public of construction activities, complaint procedures, and a plan for monitoring construction noise levels in the event complaints are received. The construction noise control plan shall include the following measures to the degree feasible, or other effective measures, to reduce construction noise levels:

- Use construction equipment that is in good working order, and inspect mufflers for proper functionality;
- Select "quiet" construction methods and equipment (e.g., improved mufflers, use of intake silencers, engine enclosures);
- Use construction equipment with lower noise emission ratings whenever possible, particularly for air compressors;
- Prohibit the idling of inactive construction equipment for more than five minutes;
- Locate stationary noise sources (such as compressors) as far from nearby noise sensitive receptors as possible, muffle such noise sources, and construct barriers around such sources and/or the construction site.
- Avoid placing stationary noise-generating equipment (e.g., generators, compressors) within noise-sensitive buffer areas (as determined by the acoustical engineer) immediately adjacent to neighbors.
- Enclose or shield stationary noise sources from neighboring noise-sensitive properties with noise barriers to the extent feasible. To further reduce noise, locate stationary equipment in pit areas or excavated areas, if feasible; and

- Install temporary barriers, barrier-backed sound curtains and/or acoustical panels around working powered impact equipment and, if necessary, around the project site perimeter. When temporary barrier units are joined together, the mating surfaces shall be flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that completely closes the gaps, and dense enough to attenuate noise.

The construction noise control plan shall include the following measures for notifying the public of construction activities, complaint procedures and monitoring of construction noise levels:

- Designation of an on-site construction noise manager for the project;

- Notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of high-intensity noise-generating activities (e.g., pier drilling, pile driving, and other activities that may generate noise levels greater than 90 dBA or 10 dBA above ambient at noise sensitive receptors) about the estimated duration of the activity;

- A sign posted on-site describing noise complaint procedures and a complaint hotline number that shall always be answered during construction;

- A procedure for notifying the planning department of any noise complaints within one week of receiving a complaint;

- A list of measures for responding to and tracking complaints pertaining to construction noise. Such measures may include the evaluation and implementation of additional noise controls at sensitive receptors (residences, hospitals, convalescent homes, schools, churches, hotels and motels, and sensitive wildlife habitat); and conduct noise monitoring (measurements) at the beginning of major construction phases (e.g., demolition, grading, excavation) and during high-intensity construction activities to determine the effectiveness of noise attenuation measures and, if necessary, implement additional noise control measures.

The implementation of Mitigation Measure M-NO-1 would reduce the project's construction noise levels at nearby noise sensitive receptors. A reduction in construction noise levels would be achieved by locating stationary noise-producing equipment as far away from the noise-sensitive receptors along Pennsylvania Avenue as possible. In addition, Mitigation Measure M-NO-1 would require the project sponsor and their construction contractors to use noise attenuation barriers and/or blankets and utilize blockades from construction trailers as much as possible, and all equipment would be attenuated with mufflers as much as possible. Although construction noise may at times exceed 10 or more dBA above the ambient at sensitive receptor locations even with the implementation of Mitigation Measure M-NO-1, this mitigation measure would substantially

reduce the intensity of construction noise and the duration of construction noise exceedances 10 dBA above the ambient noise levels at noise sensitive receptors.

Furthermore, construction noise levels would be temporary and would not persist upon completion of construction activities. Individual pieces of construction equipment would also be required to comply with the noise limits in article 29 of the police code, except for impact equipment that is exempt from the construction noise standards in article 29. Thus, with implementation of Mitigation Measure M-NO-1, construction noise impacts would be less than significant.

Impact NO-2: Construction of the project would not generate excessive groundborne vibration or groundborne noise levels. (*Less than Significant*)

Operation of heavy construction equipment, particularly pile driving and other impact devices such as pavement breakers, create seismic waves that radiate along the surface of the earth and downward into the earth. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Varying geology and distance will result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes will decrease with increasing distance.

Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction activities. As seismic waves travel outward from a vibration source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the PPV.

This impact analysis evaluates the potential for construction activities that generate vibration to result in sleep disturbance or damage to adjacent buildings and structures.

Sleep Disturbance from Vibration

The project construction would not involve construction during nighttime hours between 8 p.m. and 7 a.m. the following morning. Therefore, construction activities are not expected to result in vibration during nighttime hours that would be perceptible and thereby result in sleep disturbance.

Structure Damage Assessment

The proposed project would not include the types of construction activities that could produce substantial groundborne vibration such as blasting or pile driving.[72] Construction equipment to be

[72] Will Mollard, Principal, Workshop1, Project Sponsor, Email to Kei Zushi, Senior Environmental Planner, San Francisco Planning Department, *Information Confirmation Request: 1111 Pennsylvania Avenue Project (Case No. 2018-002951ENV)*, July 14, 2021, https://sfplanninggis.org/pim/, accessed July 21, 2021.

used for demolition, site preparation, and excavation activities, such as graders, hoe rams, and jackhammers, would only generate varying degrees of temporary groundborne vibration.

In general, historic buildings are more susceptible to vibration as compared to buildings with modern construction. There are several known historic (category A) buildings and structures located within 300 feet of the project site. These buildings and structures include residential buildings located at 1468 25th Street, approximately 150 feet northwest of the project site, and a portion of Caltrain's tunnel located along Pennsylvania Avenue between 23rd Street and Cesar Chavez.

Given the distance between the residential buildings at 1468 25th Street and the project site, which is roughly 250 feet, and the nature of construction activities performed as part of the proposed project, the project construction activities would not cause structural damage to these residential buildings. The western edge of the 1111 Pennsylvania Avenue project site is approximately 60 to 100 feet from the eastern edge of the Caltrain tunnel. The top of the tunnel is about seven to ten feet below existing grade. The tunnel is approximately 28 feet in height, and the bottom of the tunnel is approximately 35 to 38 feet below existing grade.[73] Given that the anticipated excavation for the proposed project would extend a maximum of 10 feet below existing grade and the potential impact from shoring movement is generally limited to a horizontal distance equal to twice the shoring height (i.e., 20 feet from the shoring), the project sponsor's geotechnical engineer concluded that there would be no impact from construction vibration on the tunnel.[74]

Thus, potential vibration from the project's construction activity would not result in substantial structural damage to any surrounding buildings. This impact would be less than significant.

OPERATIONS

The proposed project would not include sources of vibration during operations. Therefore, no operational vibration assessment is required.

Impact NO-3: The project's operation would not generate noise levels in excess of standards establish in the local general plan or noise ordinance and thus would not result in a substantial periodic or permanent increase in ambient noise levels. (*Less than Significant*)

Project-Induced Traffic Noise

Vehicular traffic makes the largest contribution to ambient noise levels throughout most of San Francisco. Generally, traffic would have to double in volume to produce a noticeable 3 dBA

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[73] Craig S. Shields, Principal Geotechnical Engineer, Rockridge Geotechnical, *Response to Inquiry Regarding Potential Impact of Excavation on Caltrain Tunnel, Proposed Industrial Building, 1111 Pennsylvania Avenue, San Francisco, California*, March 8, 2020, https://sfplanninggis.org/PIM/, accessed June 2021.

[74] *Ibid.*

increase in the ambient noise level in the project vicinity.[75] The proposed project would generate approximately 910 daily vehicle trips, 82 of which would occur during p.m. peak hour. This increase in vehicle trips would not cause p.m. traffic volumes to double on nearby streets, and as a result project-generated traffic noise would not have a noticeable effect on ambient noise levels in the project site vicinity. Therefore, this impact would be less than significant.

Project Fixed Mechanical Noise Source Impacts

Per San Francisco police code section 2909(b) commercial and industrial properties may not produce a noise level more than eight dB(A) above the ambient noise level at any point outside of the property plane. Typical non-residential building construction would involve new rooftop mechanical equipment, such as air handling units, condensing units, make-up air units, and exhaust fans. This equipment would generate noise that would radiate to neighboring properties. Noise from HVAC equipment can vary greatly, depending on the size of the equipment and the type of equipment used.

The noise report prepared for the proposed project assumes that the following HVAC equipment would be installed on the roof of the proposed building. In addition, the noise report makes a conservative (i.e., high-end of noise levels) analysis by assuming that all the HVAC equipment on the proposed building would be running at full capacity simultaneously.[76]

- Variable Refrigerant Flow (VRF) Outdoor Condensing Units (20 total units)
- Garage Exhaust Fan (1 unit)
- General Exhaust Fan (1 unit)
- Packaged Air Handling Unit (1 unit)

The noise report concludes that the estimated noise levels at the project site's property plane would be 57 dBA. This noise level would meet the noise ordinance limits of 58 dBA (i.e., the nighttime ambient noise level, 50 dBA, plus 8 dBA).

Per San Francisco Police Code section 2909(d), fixed noise sources shall not intrude into a sleeping or living room in any dwelling unit located on residential property to produce interior noise levels that exceed 45 dB(A) between the hours of 10:00 p.m. to 7:00 a.m. or 55 dB(A) between the hours of 7:00 a.m. to 10:00 p.m. The closest noise-sensitive receptors to the 1111 Pennsylvania Avenue

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[75] United States Department of Transportation, Federal Highway Administration, Highway Traffic Noise: Analysis and Abatement Guidance, December 2011, p. 9, http://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguid ance.pdf, accessed October 10, 2018

[76] The analysis excludes the generator proposed to be installed on the roof of the proposed building in accordance with the city's approach to noise analysis. San Francisco Police Code Article 29: Regulation of Noise Guidelines for Noise Control Ordinance Monitoring and Enforcement, December 2014 Guidance, *https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/GuidelinesNoiseEnforcement.pdf*, accessed October 30, 2020.

project site are residential units located at 1468 25th Street (approximately 250 feet from the project site).

The noise report prepared for the project concludes that the estimated noise levels resulting from the project's roof-top fixed mechanical noise sources would meet the noise limits set by section 2909(d). The noise report estimates that interior noise levels at the noise-sensitive receptors at 1468 25th Street resulting from the project's roof-top fixed mechanical noise sources would be 37 dBA or less, which is below both the nighttime limit, 45 dB(A), and daytime limit, 55 dB(A) under section 2909(d). As a result, the project's noise impact on interior noise levels at nearby noise-sensitive receptors resulting from the roof-top HVAC and mechanical systems would be less than significant. Thus, the project's noise impact resulting from the project's roof-top fixed mechanical noise sources would be less than significant.

Emergency Generators

One 400-kW natural gas emergency generator would be installed on the roof of the proposed building. The generator would be tested regularly, typically once per month. However, the generator will require a permit to operate from the Bay Area Air Quality Management District, which typically permits emergency generators to operate for testing purposes up to 50 hours per year. The generator would typically be tested during the weekday, daytime hours. Given the generator would be located in an enclosed area and operate at most 1 hour per week during daytime hours, noise from the generator is not anticipated to substantially increase daytime ambient noise levels.

The noise report prepared for the proposed project concludes that the roof-top generator, with a Level 1 acoustic enclosure, would meet the department of public health recommendation of 75 dB(A) at the project site's property plain and 55 dB(A) inside the nearest residential building at 1465 25th Street, as shown in Table 9.

TABLE 9: GENERATOR NOISE LEVELS

Generator Configuration	Predicted Noise Level at Property Plane	Daytime Noise Limit at Nearest Property Plane	Est. inside nearest residential (1468 25th St)[1]
Level 1 Enclosure	74 dBA	75 dBA	53 dBA

NOTES:
1. Assuming open windows would provide at least 10 dB of attenuation.

Thus, noise impact from the emergency generator would be less than significant.

Impact C-NO-1: Construction of the proposed project, in combination with reasonably foreseeable projects, would result in a significant cumulative impact related to noise and the project's contribution would be cumulative considerable. (*Less than Significant with Mitigation*)

There are currently eight cumulative projects in the proximity to the proposed project. Each of these projects is a development project. Four of these cumulative projects are within 0.25 mile (1,320 feet) to the 1111 Pennsylvania Avenue project site such that their construction and operational noise would have the potential to combine with the project's construction and operational noise at the nearest sensitive receptor locations. These projects include the following:

- 1901 Cesar Chavez Street Project (Planning Department Case No. 2019-015210ENV): Construction of an approximately 105,000-sf public utility yard for use by the San Francisco public utilities commission at the eastern end of the site, an 18,900-sf warehouse at the western end of the site, and an 8,400-sf modular structure containing accessory office space at the south end of the site.

- 1033 Texas Street Project (Planning Department Case No. 2017-013051ENV): Relocation of an existing two-family residence, raising it to insert a new ground-level floor and rehabilitation of the building for use as a four-story, three-unit residential building including two three-bedroom residential units and one two-bedroom unit.

- 999 Texas Street Project (Planning Department Case No. 2018-015815ENV): Construction of an approximately 55-foot-tall, seven-story, 19,000-sf building providing 25 residential units.

- 1228 25th Street Project (Planning Department Case No. 2015-005968ENV): Removal of an existing approximately 3,800-sf storage yard with containers and construction of a 58-foot-tall (68 feet including the mechanical penthouse), five-story, 14,800-sf building providing 8,140 square feet of unfinished, flexible layout small enterprise workspaces (PDR use) on the second through fifth floors and 3,000 square feet of ground-floor retail space.

Of these projects, the closest to the 1111 Pennsylvania Avenue project is the 1228 25th Street project, which is approximately 200 feet away from the project site. All the other cumulative project sites are separated from the proposed project by an extended distance. All of the cumulative projects would have multiple existing buildings or structures between them and the 1111 Pennsylvania Avenue project site that would provide shielding of the cumulative construction noise to limit the noise which combines with the project construction noise, if they were to be constructed simultaneously. Also, construction at all the cumulative project sites would be subject to the same noise regulations as the proposed project, such as limiting construction hours and equipment noise levels.

However, if all of these cumulative projects and the 1111 Pennsylvania Avenue project are constructed at the same time, cumulative construction noise could be substantial by both increasing the intensity of noise levels in the area and the duration in which sensitive receptors experience construction noise. Therefore, the proposed project in combination with cumulative projects would result in a significant construction noise impact. The proposed project would result in construction noise levels that are 10 dBA or more above ambient noise levels during the demolition, grading, building construction, and paving phases. However, construction noise levels would fluctuate throughout the day depending upon the specific equipment being used at any one time. Therefore, the proposed project would not contribute considerably to this cumulative impact.

As discussed in Impact NO-1, Mitigation Measure M-NO-1 would reduce the daytime construction noise levels at nearby noise sensitive receptors. Although construction noise may at times exceed 10 dBA above the ambient at sensitive receptor locations, this mitigation measure would substantially reduce the intensity of construction noise and the duration of construction noise that exceed 10 dBA above the ambient noise levels at noise sensitive receptors. Furthermore, construction noise levels would be temporary and would not persist upon completion of construction activities. Individual pieces of construction equipment (apart from impact equipment) would also be required to comply with the noise limits in article 29 of the police code. Thus, with implementation of Mitigation Measure M-NO-1, the proposed project's contribution to cumulative construction noise impacts would be less than significant.

The proposed project, in combination with reasonably foreseeable projects, would not result in a significant cumulative impact with respect to operational noise because the cumulative projects are located far enough not to result in a significant cumulative construction vibration or operational noise impact.

Impact C-NO-2: Construction vibration as a result of the proposed project, combined with construction vibration from cumulative projects in the vicinity, would not generate excessive groundborne vibration or groundborne noise levels. (*Less than Significant*)

Vibration impacts are highly localized and unlikely to combine with those of nearby projects. Therefore, given that there are no other cumulative projects directly adjacent to the proposed project, the proposed project would not have the potential to combine with nearby projects to result in a cumulative construction or operational vibration impact.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
7.	**AIR QUALITY. Would the project:**					
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	☐
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?	☐	☐	☒	☐	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐	☐
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐	☐

Setting

Overview

The Bay Area Air Quality Management District (or 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 and the California 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 and state Clean Air Acts require plans to be developed for areas that do not meet air quality standards, generally. The most recent air quality plan, the *2017 Clean Air Plan*, was adopted by the air district on April 19, 2017. The *2017 Clean Air Plan* updates the 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 in a single, integrated plan; and establish emission control measures to be adopted or implemented. The *2017 Clean Air Plan* contains the following primary goals:

- Protect air quality and health at the regional and local scale: Attain all state and national air quality standards, and eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and

- Protect the climate: Reduce Bay Area greenhouse gas emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

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

Criteria Air Pollutants

In accordance with the state and federal 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_2), sulfur dioxide (SO_2), and lead. These air pollutants are termed criteria air pollutants because they are regulated by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. In general, the air basin experiences low concentrations of most pollutants when compared to federal or state standards. The air basin is designated as either in attainment[77] or unclassified for most criteria pollutants with the exception of ozone, $PM_{2.5}$, and PM_{10}, for which these pollutants are designated as non-attainment for either the state or federal standards. By its very nature, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in non-attainment of air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality impacts. If a project's contribution to cumulative air quality impacts is considerable, then the project's impact on air quality would be considered significant.[78]

Land use projects may contribute to regional criteria air pollutants during the construction and operational phases of a project. Table 10: Criteria Air Pollutant Significance Thresholds, identifies air quality significance thresholds followed by a discussion of each threshold. Projects that would result in criteria air pollutant emissions below these significance thresholds would not violate an air quality standard, contribute substantially to an air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants within the air basin.

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[77] "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.

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

TABLE 10: CRITERIA AIR POLLUTANT SIGNIFICANCE THRESHOLDS[79]

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Maximum Annual Emissions (tons/year)
ROG[a]	54	54	10
NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	

Note:
[a] ROG = Reactive Organic Gases; NOx = oxides of nitrogen
Source: Bay Area Air Quality Management District, CEQA Air Quality Guidelines, May 2017

Ozone Precursors. As discussed previously, the air basin is currently designated as non-attainment for ozone and particulate matter. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x). The potential for a project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, are based on the state and federal Clean Air Acts emissions limits for stationary sources. To ensure that new stationary sources do not cause or contribute to a violation of an air quality standard, air district Regulation 2, Rule 2 requires that any new source that emits criteria air pollutants above a specified emissions limit must offset those emissions. For ozone precursors ROG and NO_x, the offset emissions level is an annual average of 10 tons per year (or 54 pounds (lbs.) per day).[80] These levels represent emissions below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

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

79 *Ibid*, page 2-2.
80 BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance,* October 2009, page 17.

Particulate Matter (PM_{10} and $PM_{2.5}$).[81] The air district has not established an offset limit for $PM_{2.5}$. However, the emissions limit in the federal New Source Review for stationary sources in nonattainment areas is an appropriate significance threshold. For PM_{10} and $PM_{2.5}$, the emissions limit under New Source Review is 15 tons per year (82 lbs. per day) and 10 tons per year (54 lbs. per day), respectively. These emissions limits represent levels below which a source is not expected to have an impact on air quality.[82] Similar to ozone precursor thresholds identified above, land use development projects typically result in particulate matter emissions as a result of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of a land use project. Again, because construction activities are temporary in nature, only the average daily thresholds are applicable to construction-phase emissions.

Fugitive Dust. Fugitive dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices at construction sites significantly controls fugitive dust,[83] and individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.[84] The air district has identified a number of best management practices to control fugitive dust emissions from construction activities.[85] 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.

Other Criteria Pollutants. Regional concentrations of CO in the Bay Area have not exceeded the state standards in the past 11 years, and SO_2 concentrations have never exceeded the standards. The primary source of CO emissions from development projects is vehicle traffic. Construction-related SO_2 emissions represent a negligible portion of the total basin-wide emissions, and construction-related CO emissions represent less than five percent of the Bay Area total basin-wide CO emissions. As discussed previously, the Bay Area is in attainment for both CO and SO_2. Furthermore, the air district has demonstrated, based on modeling, that in order to exceed the California ambient air quality standard of 9.0 ppm (8-hour average) or 20.0 ppm (1-hour average) for CO, project traffic in addition to existing traffic would need to exceed 44,000 vehicles per hour at affected intersections (or 24,000 vehicles per hour where vertical and/or horizontal mixing is limited). Therefore, given the Bay Area's attainment status and the limited CO and SO_2 emissions that could result from development projects, development projects would not result in a

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81 PM_{10} is often termed "coarse" particulate matter and is made of particulates that are 10 microns in diameter or smaller. $PM_{2.5}$, termed "fine" particulate matter, is composed of particles that are 2.5 microns or less in diameter.

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

83 Western Regional Air Partnership, *WRAP Fugitive Dust Handbook.* September 7, 2006, http://www.wrapair.org/forums/dejf/fdh/content/FDHandbook_Rev_06.pdf, accessed February 16, 2012.

84 BAAQMD, *CEQA Air Quality Guidelines*, May 2017, page D-47.

85 *Ibid*.

cumulatively considerable net increase in CO or SO_2 emissions, and quantitative analysis is not required.

Local Health Risks and Hazards

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

Unlike criteria air pollutants, TACs do not have ambient air quality standards but are regulated by the air district using a risk-based approach to determine which sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances to provide quantitative estimates of health risks.[86]

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 of 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, seven days a week, for 30 years.[87] Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

Exposures to fine particulate matter ($PM_{2.5}$) are strongly associated with mortality, respiratory diseases, lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.[88] In addition to $PM_{2.5}$, diesel particulate matter (DPM) is also of concern. The California Air Resources Board (California air board) identified DPM as a TAC in 1998,

[86] 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.

[87] California Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spot Program Risk Assessment Guidelines*, February 2015, pages 4-44 and 8-6.

[88] 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.

primarily based on evidence demonstrating cancer effects in humans.[89] The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other TAC routinely measured in the region.

In an effort to identify areas of San Francisco most adversely affected by sources of TACs, San Francisco partnered with the 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. Each of the Air Pollutant Exposure Zone criteria is discussed below. The project site is located within an Air Pollutant Exposure Zone.

Excess Cancer Risk. The Air Pollutant Exposure Zone includes areas where modeled cancer risk exceeds 100 incidents per one 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 facility and community-scale level.[90] As described by the air district, the EPA considers a cancer risk of 100 per one million to be within the "acceptable" range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants rulemaking,[91] the EPA states that it "…strives to provide maximum feasible protection against risks to health from hazardous air pollutants by (1) protecting the greatest number of persons possible to an individual lifetime risk level no higher than approximately one in one million and (2) limiting to no higher than approximately one in ten thousand [100 in one million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years." The 100 per one million excess cancer cases is also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on air district regional modeling.[92]

Fine Particulate Matter. In April 2011, the EPA published *Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards*, "Particulate Matter Policy Assessment." In this document, the EPA concludes that the then-current federal annual $PM_{2.5}$ standard of 15 $\mu g/m^3$ should be revised to a level within the range of 13 to 11 $\mu g/m^3$, with evidence strongly supporting a standard within the range of 12 to 11 $\mu g/m^3$. The Air Pollutant Exposure Zone for San Francisco is based on the health protective $PM_{2.5}$ standard of 11 $\mu g/m^3$, as supported by the EPA's "Particulate Matter Policy Assessment," although lowered to 10 $\mu g/m^3$ to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

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

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

91 54 Federal Register 38044, September 14, 1989.

92 BAAQMD, *Clean Air Plan,* May 2017, page D-43.

Proximity to Freeways. According to the California air board, studies have shown an association between the proximity of sensitive land uses to freeways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children. Siting sensitive uses in close proximity to freeways increases both exposure to air pollution and the potential for adverse health effects. As evidence shows that sensitive uses in an area within a 500-foot buffer of any freeway are at an increased health risk from air pollution,[93] parcels that are within 500 feet of freeways are included in the Air Pollutant Exposure Zone.

Health Vulnerable Locations. Based on the air district's evaluation of health vulnerability in the Bay Area, those zip codes (94102, 94103, 94105, 94124, and 94130) in the worst quintile of Bay Area health vulnerability scores as a result of air pollution-related causes were afforded additional protection by lowering the standards for identifying parcels in the Air Pollutant Exposure Zone to: (1) an excess cancer risk greater than 90 per one million persons exposed, and/or (2) $PM_{2.5}$ concentrations in excess of 9 $\mu g/m^3$.[94]

The above citywide health risk modeling was also used as the basis in approving amendments to the San Francisco Building and Health Codes, referred to as referred to as Health Code Article 38: Enhanced Ventilation Required for Urban Infill Sensitive Use Developments (Article 38). The purpose of Article 38 is to protect the public health and welfare by establishing an Air Pollutant Exposure Zone and imposing an enhanced ventilation requirement for all urban infill sensitive use development within the Air Pollutant Exposure Zone. In addition, projects within the Air Pollutant Exposure Zone require special consideration to determine whether the project's activities would add a substantial amount of emissions to areas already adversely affected by poor air quality.

Construction Air Quality Impacts

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

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

Construction activities (short-term) typically result in emissions of ozone precursors and fine particulate matter in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and fine particular matter are primarily a result of the combustion

[93] California Air Resources Board (ARB), *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005, *http://www.arb.ca.gov/ch/landuse.htm*.

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

of fuel from on-road and off-road vehicles. However, ROGs are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving. The proposed project would include a 143,900-sf laboratory. During the project's approximately 22.5-month construction period, construction activities would have the potential to result in emissions of ozone precursors and fine particulate matter, as discussed below.

Fugitive Dust

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. Depending on exposure, adverse health effects can occur due to this particulate matter in general and also due to specific contaminants such as lead or asbestos that may be constituents of soil. Although there are federal standards for air pollutants and implementation of state and regional air quality control plans, air pollutants continue to have impacts on human health throughout the country. California has found that particulate matter exposure can cause health effects at lower levels than national standards. The current health burden of particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. According to the California air board, reducing $PM_{2.5}$ concentrations to state and federal standards of 12 $\mu g/m^3$ in the San Francisco Bay Area would prevent between 200 and 1,300 premature deaths.[95]

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

In response, the San Francisco Board of Supervisors approved the Construction Dust Control Ordinance (Ordinance No. 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 avoid orders to stop work by the San Francisco Department of Building Inspection (building department).

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

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

For projects over one half-acre, such as the proposed project, the Dust Control Ordinance requires that the project sponsor submit a dust control plan for approval by the San Francisco Department of Public Health (health department). The building department will not issue a building permit without written notification from the director of the health department that the applicant has a site-specific dust control plan, unless the director waives the requirement. Interior-only tenant improvement projects that are over one-half acre in size that will not produce exterior visible dust are exempt from the site-specific dust control plan requirement.

The site-specific dust control plan would require the project sponsor to: submit of a map to the director of the health department showing all sensitive receptors within 1,000 feet of the site; wet down areas of soil at least three times per day; provide an analysis of wind direction and install upwind and downwind particulate dust monitors; record particulate monitoring results; hire an independent, third party to conduct inspections and keep a record of those inspections; establish shut-down conditions based on wind, soil migration, etc.; establish a hotline for surrounding community members who may be potentially affected by project-related dust; limit the area subject to construction activities at any one time; install dust curtains and windbreaks on the property lines, as necessary; limit the amount of soil in hauling trucks to the size of the truck bed and securing with a tarpaulin; enforce a 15-mph speed limit for vehicles entering and exiting construction areas; sweep affected streets with water sweepers at the end of the day; install and utilize wheel washers to clean truck tires; terminate construction activities when winds exceed 25 miles per hour; apply soil stabilizers to inactive areas; and sweep off adjacent streets to reduce particulate emissions. The project sponsor would be required to designate an individual to monitor compliance with these dust control requirements.

San Francisco Ordinance No. 175-91 restricts the use of potable water for soil compaction and dust control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of San Francisco, unless permission is obtained from the San Francisco Public Utilities Commission (SFPUC). Non-potable water must be used for soil compaction and dust control activities during project construction and demolition. The SFPUC operates a recycled water truck-fill station at the Southeast Water Pollution Control Plant that provides recycled water for these activities at no charge.

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 a less-than-significant level.

Criteria Air Pollutants

As discussed above, construction activities would result in emissions of criteria air pollutants from the use of off- and on-road vehicles and equipment. To assist lead agencies in determining whether short-term construction-related air pollutant emissions require further analysis as to whether the project may exceed the criteria air pollutant significance thresholds shown in Table 10, above, the air district, in its *CEQA Air Quality Guidelines* (May 2017), developed screening criteria. If a proposed project meets the screening criteria, then construction of the project would result in less-

than-significant criteria air pollutant impacts. A project that exceeds the screening criteria may require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds. The *CEQA Air Quality Guidelines* note that the screening levels are generally representative of new development on greenfield[96] 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 include 143,900-gsf of laboratory use. The size of proposed construction activities would be below the construction-related criteria air pollutant screening criteria for the "general light industry" land use type (259,000 sf) or the "general office building" land use type (277,000 square feet) identified in the BAAQMD's *CEQA Air Quality Guidelines.* The amount of proposed excavation, about 8,540 cubic yards of soil, does not exceed the criteria air pollutant screening criterion of 10,000 cubic yards. Therefore, quantification of construction-related criteria air pollutant emissions for the proposed project is not required. The proposed project's construction activities would result in a less-than-significant impact related to criteria air pollutants.

Impact AQ-2: The proposed project's construction activities would generate toxic air contaminants, including diesel particulate matter, but would not expose sensitive receptors to substantial pollutant concentrations. *(Less than Significant with Mitigation)*

As discussed above, the project site is within an Air Pollutant Exposure Zone. Regarding construction emissions, off-road equipment, which includes construction-related equipment, is a large contributor to DPM emissions in California, although since 2007, the California Air Resources Board (ARB) has found the emissions to be substantially lower than previously expected.[97] Newer and more refined emission inventories have substantially lowered the estimates of DPM emissions from off-road equipment such that off-road equipment is now considered the sixth largest source of DPM emissions in California.[98] This reduction in emissions is due, in part, to effects of the economic recession and refined emissions estimation methodologies. For example, revised fine particulate matter emission estimates for the year 2010, which DPM is a major component of total fine particulate matter, have decreased by 83 percent from previous 2010 emission estimates for the air basin.[99] Approximately half of the reduction can be attributed to the economic recession,

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

97 ARB, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements,* p. 1 and p. 13 (Figure 4), October 2010.

98 ARB, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements,* October 2010.

99 ARB, "In-Use Off-Road Equipment, 2011 Inventory Model," Query accessed online, April 2, 2012, http://www.arb.ca.gov/msei/categories.htm#inuse_or_category.

and approximately half can be attributed to updated assumptions independent of the economic recession (e.g., updated methodologies used to better assess construction emissions).[100]

Additionally, a number of federal and state regulations are requiring cleaner off-road equipment. Specifically, both the EPA and the ARB have set emissions standards for new off-road equipment engines, ranging from Tier 1 to Tier 4. Tier 1 emission standards were phased in between 1996 and 2000, and Tier 4 Interim and Final emission standards for all new engines were phased in between 2008 and 2015. To meet the Tier 4 emission standards, engine manufacturers will be required to produce new engines with advanced emission-control technologies. Although the full benefits of these regulations will not be realized for several years, the EPA estimates that by implementing the federal Tier 4 standards, NO_x and PM emissions will be reduced by more than 90 percent.[101]

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 Air Quality Guidelines*:

> "Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (ARB 2005). In addition, current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of health risk."[102]

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

On-road heavy-duty diesel vehicles and off-road equipment would be used during the 22.5-month construction duration. Emissions would be temporary and variable in nature. Furthermore, the proposed project would be required to comply with California regulations limiting idling to no more than five minutes,[103] which would further reduce nearby sensitive receptor exposure to temporary and variable DPM emissions. However, Because the project site is within the Air

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100 ARB, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, October 2010.

101 United State Environmental Protection Agency, "Clean Air Nonroad Diesel Rule: Fact Sheet," May 2004.

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

103 California Code of Regulations, Title 13, Division 3, section 2485 (on-road) and section 2449(d)(2) (off-road).

Pollutant Exposure Zone, additional construction activity may adversely affect population that are already at a higher risk for adverse long-term health risks from existing sources of air pollution.

The project sponsor would be required to implement Mitigation Measure M-AQ-2: Construction Air Quality, as described below, to reduce the magnitude of this impact. While emission reductions from limiting idling, educating workers and the public, and properly maintaining equipment are difficult to quantify, other measures, specifically the requirement for equipment with Tier 2 engines and Level 3 Verified Diesel Emission Control Strategy (VDECS), can reduce construction emissions by 89 to 94 percent compared to equipment with engines meeting no emission standards and without a VDECS.[104] Emissions reductions from the combination of Tier 2 equipment with Level 3 VDECS is almost equivalent to requiring only equipment with Tier 4 Final engines. Therefore, compliance with Mitigation Measure M-AQ-2 would reduce construction emissions impacts on nearby sensitive receptors to a less-than-significant level.

Mitigation Measure M-AQ-2: Construction Air Quality

The project sponsor or contractor shall provide the planning department with a certification statement that the sponsor or contractor agrees to fully comply with the following requirements which shall be included in contract specifications:

A. Engine Requirements.
   1. All off-road equipment greater than 25 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed either U.S. Environmental Protection Agency (U.S. EPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards, and have been retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off-road emission standards automatically meet this requirement.
   2. Where access to alternative sources of power are available, portable diesel engines shall be prohibited.

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

3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the two-minute idling limit.
4. The contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

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

Table – Off-Road Equipment Compliance Step-down Schedule

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

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

* Alternative fuels are not a VDECS.

C. Construction Emissions Minimization Plan. Before starting on-site construction activities, the contractor shall submit a Construction Emissions Minimization Plan (Plan) to the ERO

for review and approval. The Plan shall state, in reasonable detail, how the contractor will meet the requirements of Section A.

1. The Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For VDECS installed, the description may include: technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date and hour meter reading on installation date. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel being used.
2. The ERO shall ensure that all applicable requirements of the Plan have been incorporated into the contract specifications. The Plan shall include a certification statement that the contractor agrees to comply fully with the Plan.
3. The contractor shall make the Plan available to the public for review on-site during working hours. The contractor shall post at the construction site a legible and visible sign summarizing the Plan. The sign shall also state that the public may ask to inspect the Plan for the project at any time during working hours and shall explain how to request to inspect the Plan. The contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.

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

Operational Air Quality Impacts

Land use projects typically result in emissions of criteria air pollutants and TACs primarily from an increase in motor vehicle trips. However, land use projects may also result in criteria air pollutants and TACs from combustion of natural gas, landscape maintenance, use of consumer products, and architectural coating. The following addresses air quality impacts resulting from operation of the proposed project.

Impact AQ-3: During project operations, the proposed project would result in emissions of criteria air pollutants, but not at levels that would violate an air quality standard, contribute to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. ***(Less than Significant)***

As discussed above under Impact AQ-1, the air district, in its *CEQA Air Quality Guidelines* (May 2017), has developed screening criteria to determine whether a project requires an analysis

of project-generated criteria air pollutants. If all the screening criteria are met by a proposed project, then the lead agency or applicant does not need to perform a detailed air quality assessment.

The proposed project, which includes 143,900 square feet of laboratory space, is expected to generate 910 daily vehicle trips to and from the project site.[105] The proposed project would be below the operational criteria air pollutant screening criteria for the "general light industry" land use type (541,000 square feet) or "general office building" land use type (346,000 square feet) identified in the air district's *CEQA Air Quality Guidelines*. Thus, quantification of project-generated criteria air pollutant emissions is not required.

The proposed project's operation would not exceed any of the significance thresholds for criteria air pollutants and would result in a less-than-significant impact related to criteria air pollutants.

Impact AQ-4: During project operations, the proposed project would generate toxic air contaminants, including diesel particulate matter, but would not expose sensitive receptors to substantial air pollutant concentrations. ***(Less than Significant)***

As discussed above, the project site is within an Air Pollutant Exposure Zone. The proposed project would generate TACs, as discussed below.

Sources of Toxic Air Contaminants

Vehicle Trips. Individual projects result in emissions of TACs primarily as a result of an increase in vehicle trips. The air district considers roads with fewer than 10,000 vehicles per day "minor, low-impact" sources that do not pose a significant health impact even in combination with other nearby sources and recommends that these sources be excluded from the environmental analysis. The proposed project's 910 daily vehicle trips would be below this level and would be distributed among the local roadway network. Therefore, an assessment of project-generated TACs resulting from vehicle trips is not required, and the proposed project would not generate a substantial amount of TAC emissions that could affect nearby sensitive receptors.

Back-Up Emergency Generator. The proposed project would introduce a new stationary source of emissions (which is subject to permitting requirements): one 400-kW natural gas back-up emergency generator to be installed on the roof of the proposed building.[106] The project sponsor would be required to obtain authority to construct and permit to operate permits to operate an emergency generator from the air district. Although an emergency generator is installed only to be used in periods of power outages, monthly testing of the generator would be required. The air

[105] Kei Zushi, Senior Planner, San Francisco Planning Department, *Transportation Coordination Memo, 1111 Pennsylvania Avenue, Planning Department Case No. 2018-002951ENV*, March 8, 2021, *https://sfplanninggis.org/PIM/*, accessed May 2021.

[106] Will Mollard, Principal, Workshop1, Project Sponsor, Email to Kei Zushi, Senior Environmental Planner, San Francisco Planning Department, *Information Confirmation Request: 1111 Pennsylvania Avenue Project (Case No. 2018-002951ENV)*, July 14, 2021, *https://sfplanninggis.org/pim/*, accessed July 21, 2021.

district limits testing to no more than 50 hours per year. Thus, the proposed project would not generate a substantial amount of TAC emissions that could affect nearby sensitive receptors.

Thus, the proposed project's operation would result in a less-than-significant impact related with respect to toxic air contaminants.

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

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

The primary goals of the *2017 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 TACs; and (3) protect the climate by reducing greenhouse gas emissions. To meet the primary goals, the *2017 Clean Air Plan* recommends specific control measures and actions. These control measures are grouped into various categories and include stationary and area source measures, mobile source measures, transportation control measures, land use measures, and energy and climate measures. The *2017 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. To this end, the *2017 Clean Air Plan* includes 85 control measures aimed at reducing air pollution in the air basin.

The measures most applicable to the proposed project are transportation control measures and energy and climate control measures. The proposed project's impact related to greenhouse gases are discussed in Section E.8, Greenhouse Gas Emissions, which demonstrates that the proposed project would comply with the applicable provisions of the San Francisco's Greenhouse Gas Reduction Strategy.

The availability of viable transportation options in the project vicinity ensure that residents could bicycle, walk, and ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the proposed project would avoid substantial growth in automobile trips and vehicle miles traveled. The proposed project's anticipated 910 daily vehicle trips would result in a negligible increase in air pollutant emissions. Furthermore, the proposed project would be generally consistent with the *San Francisco General Plan*, as discussed in Section C, Compatibility with Existing Zoning and Plans. Transportation control measures that are identified

in the *2017 Clean Air Plan* are implemented by the *San Francisco General Plan* and the Planning Code, for example, through the city's Transit First Policy, bicycle parking requirements, and transit impact development fees. Compliance with these requirements would ensure that the proposed project includes relevant transportation control measures specified in the *2017 Clean Air Plan*. Therefore, the proposed project would include applicable control measures identified in the *2017 Clean Air Plan* to meet the *2017 Clean Air Plan's* primary goals.

Examples of a project that could cause the disruption or delay of *2017 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 143,900-sf laboratory space to a dense, walkable urban area near a concentration of regional and local transit service. It would not preclude the extension of a transit line or a bike path or any other transit improvement, and thus would not disrupt or hinder implementation of control measures identified in the *2017 Clean Air Plan*.

For the reasons described above, the proposed project would not interfere with implementation of the *2017 Clean Air Plan*. Because the proposed project would be consistent with the applicable air quality plan that demonstrates how the region will improve ambient air quality and achieve the state and federal ambient air quality standards, this impact would be less than significant.

Impact AQ-6: The proposed project would not create objectionable odors that would affect a substantial number of people. *(Less than Significant)*

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities. During construction, diesel exhaust from construction equipment would generate some odors. However, construction-related odors would be temporary and would not persist upon project completion. In addition, the proposed project, which would include laboratory use, would not create significant sources of new odors. Therefore, impacts related to odors would be less than significant.

Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in less-than-significant cumulative air quality impacts. *(Less than Significant with Mitigation)*

As discussed above, regional air pollution is by its very nature largely a cumulative impact. Emissions from past, present and future projects contribute to the region's adverse air quality on a cumulative basis. No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts.[107] The project-level thresholds for criteria air pollutants discussed above are based on levels by which new sources are not anticipated

[107] BAAQMD, *CEQA Air Quality Guidelines,* May 2017, page 2-1.

to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project's construction (Impact AQ-1) and operational (Impact AQ-3) emissions would not exceed the project-level thresholds for criteria air pollutants, the proposed project would not be considered to result in a cumulatively considerable contribution to regional air quality impacts.

As discussed above, the project site is located in an area that already experiences poor air quality. The project would add new sources of TACs (e.g., new vehicle trips and one 400-kW natural gas back-up emergency generator) in an area already adversely affected by air quality. As discussed under Impact AQ-3, the proposed project's 1,898 daily vehicle trips would not pose a significant health impact even in combination with other nearby sources. Similarly, as discussed in Impact under AQ-4, the operation of the back-up emergency generator to be installed on the roof of the proposed building would not pose a significant health impact even in combination with other nearby sources. However, the proposed project's construction-related emissions would contribute considerably to significant health risk impacts. Implementation of Mitigation Measure M-AQ-2: Construction Air Quality, as described above, which would reduce the project's construction emissions by as much as 94 percent would reduce the project's contribution to cumulative air quality impacts to a less-than-significant level.

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

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 Bay Area Air Quality Management District (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[108] 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,[109] 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).[110] Further, the city has exceeded its 2017 GHG reduction goal of reducing GHG emissions to 25 percent below 1990 levels by 2017 by reducing

108 San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco,* 2017, *http://sf-planning.org/strategies-address-greenhouse-gas-emissions*.

109 San Francisco Department of the Environment, *San Francisco's Carbon Footprint*, *https://sfenvironment.org/carbon-footprint*, accessed July 19, 2017.

110 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.

emissions by 36 percent over that timeframe despite a population increase of 22 percent.[111]

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 Executive Orders S-3-05[112] and B-30-15,[113,114] and Senate Bill 32,[115,116] the city's GHG reduction goals are consistent with Executive Orders S-3-05 and B-30-15, Assembly Bill 32, Senate Bill 32, and the 2017 Clean Air Plan. Therefore, proposed projects that are consistent with the city's GHG reduction strategy would be consistent with the aforementioned GHG reduction goals, would not conflict with these plans or result in significant GHG emissions, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

The following analysis of the proposed project's impact on climate change focuses on the project's contribution to cumulatively significant GHG emissions. 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.

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111 San Francisco Department of the Environment, San Francisco's Carbon Footprint (2019), April 2019, https://sfenvironment.org/carbon-footprint, accessed June 10, 2019.

112 Office of the Governor, Executive Order S-3-05, June 1, 2005, *http://www.pcl.org/projects/2008symposium/proceedings/Coatsworth12.pdf*, accessed March 16, 2016. Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million metric tons of carbon dioxide equivalents ($MTCO_2E$)); by 2020, reduce emissions to 1990 levels (approximately 427 million $MTCO_2E$); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million $MTCO_2E$). 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.

113 Office of the Governor, *Executive Order B-30-15*, April 29, 2015, *https://www.ca.gov/archive/gov39/2015/04/29/news18938/index.html*, accessed March 3, 2016. Executive Order B-30-15, issued on April 29, 2015, sets forth a target of reducing GHG emissions to 40 percent below 1990 levels by 2030 (estimated at 2.9 million $MTCO_2E$).

114 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.

115 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.

116 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.

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

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

The proposed project would increase the intensity of use of the site by introducing a new building containing 143,900 square feet of laboratory space on a project site that is currently used as a storage of shipping containers. Therefore, the proposed project would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and more intensive on-site use that would 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.

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

The proposed project would be 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.

The proposed project would be required to comply with the energy efficiency requirements of the city's Green Building Code, Stormwater Management Ordinance, the Residential Water Conservation Ordinance, and the Water Efficient Irrigation Ordinance, all of which would promote energy and water efficiency, thereby reducing the proposed project's energy-related GHG emissions.[117]

The proposed project's waste-related emissions would be reduced through compliance with the city's Recycling and Compositing Ordinance, Construction and Demolition Debris Recovery Ordinance, and Green Building Code requirements. These regulations reduce the amount of materials sent to a landfill, reducing GHGs emitted by landfill operations. These regulations also

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

promote reuse of materials, conserving their embodied energy[118] and reducing the energy required to produce new materials.

Compliance with the city's street tree planting requirements would serve to increase carbon sequestration. Regulations requiring low-emitting finishes would reduce volatile organic compounds.[119] Thus, the proposed project was determined to be consistent with San Francisco's GHG reduction strategy.[120]

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 percent below 1990 levels by 2017. Further, the city has exceeded its 2017 GHG reduction goal of reducing GHG emissions to 25 percent below 1990 levels by 2017 by reducing emissions by 36 percent over that timeframe despite a population increase of 22 percent.[121] Other existing regulations, such as those implemented through Assembly Bill 32, will continue to reduce a proposed project's contribution to climate change. In addition, San Francisco's local GHG reduction targets are consistent with the long-term GHG reduction goals of Executive Orders S-3-05 and 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 Orders S-3-05 and 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. As such, the proposed project would result in a less-than-significant impact with respect to GHG emissions. No mitigation measures are necessary.

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

[119] 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.

[120] San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for 1111 Pennsylvania Avenue, Planning Department Case No. 2018-002951ENV*, May 24, 2021, *https://sfplanninggis.org/PIM/*, accessed May 2021.

[121] San Francisco Department of the Environment, San Francisco's Carbon Footprint (2019), April 2019, *https://sfenvironment.org/carbon-footprint*, accessed June 10, 2019.

Topics	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
9. WIND. Would the project:					
a) Create wind hazards in publicly accessible areas of substantial pedestrian use?	☐	☐	☒	☐	☐

Impact WI-1: The proposed project would not create wind hazards in publicly accessible areas of substantial pedestrian use. ***(Less than Significant)***

A proposed project's wind impacts are directly related to its height, orientation, design, location, and surrounding development context. Based on wind analyses for other development projects in San Francisco, a building that does not exceed a height of 85 feet generally has little potential to cause substantial changes to ground-level wind conditions.

The proposed project at 65 feet in height would not be substantially taller than existing buildings in the project vicinity and would have little potential to intercept overhead winds and redirect them down to the sidewalks surrounding the project site. Given its height and surrounding development context, the proposed project would not cause substantial changes to ground-level wind conditions adjacent to and near the project site. For these reasons, the proposed project would not create wind hazards in publicly accessible areas of substantial pedestrian use. This impact would be less than significant, and no mitigation measures are necessary.

Impact C-WI-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative wind impact. ***(Less than Significant)***

As discussed above, buildings shorter than 85 feet have little potential to cause substantial changes to ground-level wind conditions. None of the nearby cumulative development projects involves construction of buildings or structures that would be tall enough to combine with the proposed project to create wind hazards in publicly accessible areas of substantial pedestrian use. For this reason, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative wind impact.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
10. SHADOW. Would the project:					
a) Create new shadow that substantially and adversely affects the use and enjoyment of publicly accessible open spaces?	☐	☐	☒	☐	☐

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

In 1984, San Francisco voters approved an initiative known as "Proposition K, The Sunlight Ordinance," which was codified as planning code section 295 in 1985. Planning Code section 295 generally prohibits new structures above 40 feet in height that would cast additional shadows on open space that is under the jurisdiction of the San Francisco Recreation and Park Commission between one hour after sunrise and one hour before sunset, at any time of the year, unless that shadow would not result in a significant adverse effect on the use of the open space. Public open spaces that are not under the jurisdiction of the Recreation and Park Commission as well as private open spaces are not subject to planning code section 295.

Implementation of the proposed project would result in the construction of a building exceeding 40 feet in height. The planning department prepared a preliminary shadow fan analysis to determine whether the proposed project would have the potential to cast shadow on nearby parks or open spaces. Based on the preliminary shadow fan analysis, the planning department determined that the proposed project would cast shadow on Tunnel Top Park,[122] which is not under the jurisdiction of the San Francisco Recreational and Park Commission. The park is located immediately across Pennsylvania Avenue from the project site.[123] Thus, a shadow report was prepared to further evaluate the project's shadow impacts on Tunnel Top Park.[124]

The shadow report concluded that although the proposed project would not cast shadow on any open spaces that are under the San Francisco Recreation and Park Commission's jurisdiction or any privately owned public open spaces (POPOS), the proposed project would cast shadow on Tunnel Top Park. According to the shadow report, the proposed project would cast shadow on portions of Tunnel Top Park only during the early morning hours (for approximately four hours, starting at around 6:47 am and ending at around 10:30 am), with varying size and location of shadow depending on the date and time. The proposed project would not cast shadow on Tunnel

[122] Tunnel Top Park is a private, community run park and is not under the jurisdiction of the San Francisco Recreational and Park Commission. Tunnel Top Park, *https://tunneltoppark.org/*, accessed July 13, 2021.

[123] San Francisco Planning Department, *1111 Pennsylvania Avenue Shadow Fan,* April 28, 2019.

[124] Fastcast, *1111 Pennsylvania Avenue, Shadow Analysis*, Planning Department Case No. 2018-002951ENV, October 20, 2020.

Top Park during the other times throughout the year. On August 26 and April 26, when the largest shadow in terms of area would result from the proposed project, a majority of the area in Tunnel Top Park would be covered by the proposed project's shadow at around 7:25 a.m.[125] The park includes a seating area along the western boundary of the park and a paved area in the middle. Use of these amenities is not substantially affected by the amount of sunlight they received. Thus, given the type of these amenities and the duration of shadow that would be cast by the proposed project on the park (i.e., approximately four hours per day), the proposed project's shadow would not substantially affect the use and enjoyment of the users of the park. Thus, the proposed project would result in a less-than-significant shadow impact.

The proposed project would shade portions of streets, sidewalks, and private properties in the project vicinity at various times of the day 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, the limited increase in shading of private properties as a result of the proposed project would not be considered a significant impact under CEQA.

For these reasons, the proposed project would not create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas. This impact would be less than significant, and no mitigation measures are necessary.

Impact C-SH-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative shadow impact. ***(Less than Significant)***

As discussed above, the proposed project would shade Tunnel Top Park, which is not under the jurisdiction of the San Francisco Recreational and Park Commission. The shadow report prepared for the proposed project found no cumulative projects that would cast shadow on Tunnel Top Park.[126] The sidewalks in the project vicinity are already shadowed for much of the day by multi-story buildings. Although implementation of the proposed project and nearby cumulative development projects would add new shadow to the sidewalks in the project vicinity, these shadows would be transitory in nature, would not substantially affect the use of the sidewalks, and would not increase shadows above levels that are common and generally expected in a densely developed urban environment.

For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative shadow impact.

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125 *Ibid.*

126 *Ibid.*

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

Impact RE-1: The proposed project would not 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. ***(Less than Significant)***

The neighborhood parks or other recreational facilities closest to the project site are Tunnel Top Park (across Pennsylvania Avenue from the project site), Minnesota Grove (0.2 mile northeast), the Potrero Hill Recreation Center (0.5 mile northwest), and Starr King Open Space (0.5 mile northwest).

Although the proposed project would not increase residential population on the project site, it would increase the employment population of the project site by about 550-700 employees. This employment population growth would increase the demand for recreational facilities. The proposed project would partially offset the demand for recreational facilities by providing on-site 5,900-sf private open space for the occupants of the proposed building on the fourth-floor level. Although the occupants of the proposed building may use parks, open spaces, and other recreational facilities in the project vicinity, the additional use of these recreational facilities is expected to be modest in light of the relatively small employment population increase that would result from the proposed project.

On a citywide/regional basis, the increased demand on recreational facilities from 550-700 new employees at the project site would be negligible considering the number of people living and working in San Francisco and the region as well as the number of existing and planned recreational facilities. For these reasons, implementation of the proposed project would not increase the use of existing recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. This impact would be less than significant, and no mitigation measures are necessary.

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

The proposed project would provide on-site 5,900-sf private open space for the occupants of the proposed building on the fourth-floor level. In addition, the project site is within 0.5 mile of three parks, public open spaces, or other public recreational facilities, as discussed above. It is anticipated that these existing recreational facilities would be able to accommodate the increase in demand for recreational resources generated by the project residents. For these reasons, the construction of new or the expansion of existing recreational facilities, both of which might have an adverse physical effect on the environment, would not be required. This impact would be less than significant, and no mitigation measures are necessary.

Impact C-RE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact on recreational facilities or resources. ***(Less than Significant)***

Implementation of the proposed project, in combination with cumulative development in the project vicinity, would result in the construction of up to approximately 2,426 dwelling units and up to approximately 2.8 million sf of non-residential space. Thus, the proposed project and the cumulative projects would result in an incremental increase in population and demand for recreational facilities and resources. The city has accounted for such growth as part of the recreation and open space element of the general plan.[127] In addition, San Francisco voters passed two bond measures, in 2008 and 2012, to fund the acquisition, planning, and renovation of the city's network of recreational resources. As discussed above, there are four parks, open spaces, or other recreational facilities within 0.5 mile of the project site. It is expected that these existing recreational facilities and the proposed private open space on the fourth-floor level of the proposed building would be able to accommodate the increase in demand for recreational resources generated by nearby cumulative development projects. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on recreational facilities or resources.

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[127] San Francisco Planning Department, *San Francisco General Plan*, Recreation and Open Space Element, April 2014, pp. 20-36, *http://generalplan.sfplanning.org/Recreation_OpenSpace_Element_ADOPTED.pdf*, accessed June 26, 2019.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
12. UTILITIES AND SERVICE SYSTEMS. Would the project:					
a) Require or result in the relocation or construction of new or expanded, water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐	☐
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?	☐	☐	☒	☐	☐
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?	☐	☐	☒	☐	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐	☐

Impact UT-1: Implementation of the proposed project would not 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. ***(Less than Significant)***

The San Francisco Public Utilities Commission (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.

The project site is currently used as a storage site for portable storage containers. The proposed project, which is currently served by SFPUC's water supply and wastewater systems and Pacific Gas and Electric Company's electricity supply systems, would not 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. 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 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. 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 project would not make a considerable contribution to impacts from increased rationing. ***(Less than Significant)***

Construction Impacts

The proposed project's construction activities are required to comply with Article 21 of the San Francisco Public Works Code (Ordinance No. 175-91), which restricts the use of potable water for soil compaction and dust control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of San Francisco, unless permission is obtained from the SFPUC. Non-potable water must be used for soil compaction and dust control activities during project construction or demolition. Recycled water is available from the SFPUC for dust control on roads and streets. However, per state regulations, recycled water cannot be used for demolition, pressure washing, or dust control through aerial spraying. The SFPUC operates a recycled water truck-fill station at the Southeast Water Pollution Control Plant that provides recycled water for these activities at no charge. Required compliance with Ordinance No. 175-91 would ensure that the proposed project's construction activities would result in less-than-significant impacts related to water supply.

Operational Impacts

~~In 2016, the SFPUC adopted its Urban Water Management Plan, which estimates that current and projected water supplies will meet future retail demand through 2035 under normal year, single-dry-year and multiple-dry-year conditions.[128, 129] However, if a multiple-dry-year event occurs, the SFPUC will implement water use and supply reductions through its 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 rivers and the Bay-Delta ecosystem~~

~~[128] San Francisco Public Utilities Commission, *2015 Urban Water Management Plan for the City and County of San Francisco*, June 2016, *https://www.sfwater.org/Modules/ShowDocument.aspx?documentID=8839*, accessed August 7, 2019.~~

~~[129] "Retail" demand represents water the SFPUC provides to individual customers within San Francisco and several individual customers outside of San Francisco. "Wholesale" demand represents water the SFPUC provides to other water agencies supplying other jurisdictions.~~

(the Bay-Delta Plan Amendment).[130] 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 the adoption of the Bay-Delta Plan Amendment.[131] As discussed in the SFPUC 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 SFPUC's water supply is currently unknown. The SFPUC 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 SFPUC 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); and

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.[132]

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[130] 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*.

[131] Memorandum from Steven R. Ritchie, SFPUC to Lisa Gibson, Environmental Review Officer, San Francisco Planning Department, Environmental Planning Division, May 31, 2019.

[132] 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 SFPUC would have adequate water to meet total retail demands through 2040 in normal years.[133] For single dry and multiple (years 1, 2 and 3) dry years of an extended drought, the SFPUC 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 a 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 does 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 SFPUC must prepare water supply assessments for certain large "water demand" projects, as defined in CEQA Guidelines section 15155.[134] The proposed project would include 143,900 gsf of laboratory space; as such it does not qualify as a "water-demand" project as defined by CEQA Guidelines section 15155(a)(1), and a water supply assessment is not required and has not been prepared for the project.

While a water supply assessment is not required, the following discussion provides an estimate of the project'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 project-only analysis is not provided for this topic. The following analysis instead considers

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[133] 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.

[134] Pursuant to CEQA Guidelines section 15155(a)(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 650,000 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.

whether the proposed project, 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 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).[135] The development proposed by the project would represent 56 percent of the 250,000 square feet of commercial space provided in section 15155(1)(C). 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.[136] Assuming the project would demand no more than 50,000 gallons of water per day (or 0.05 mgd), Table 11 compares this maximum with the total retail demand from 2020 through 2040. At most, the proposed project's water 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.

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[135] Memorandum, from Steven R. Ritchie, Assistant General Manager, Water Enterprise, San Francisco Public Utilities Commission, to Lisa Gibson, Environmental Review Officer, San Francisco Planning Department – Environmental Planning, May 31, 2019.

[136] San Francisco Public Utilities Commission, *2015 Urban Water Management Plan for the City and County of San Francisco*, June 2016, *https://www.sfwater.org/Modules/ShowDocument.aspx?documentID=8839*, accessed August 7, 2019.

TABLE 11: PROPOSED PROJECT DEMAND RELATIVE TO TOTAL RETAIL DEMAND (MGD)

	2020	2025	2030	2035	2040
Total Retail Demand for San Francisco[a]	72.1	79	82.3	85.9	89.9
Total Demand of Proposed Project[b]	0.05	0.05	0.05	0.05	0.05
Total Demand of Proposed Project as Percentage of Total Retail Demand	0.07%	0.06%	0.06%	0.06%	0.06%

Notes:

[a] San Francisco Public Utilities Commission, 2015 Urban Water Management Plan for the City and County of San Francisco, June 2016.

[b] San Francisco Public Utilities Commission, Technical Memorandum to Lisa Gibson, Environmental Review Officer, San Francisco Planning Department – Environmental Planning Division, Maximum water demand for smaller projects and potential water supply scenarios, May 31, 2019.

Sufficient water supplies are available to serve the proposed project 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'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 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 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 would not make a considerable contribution to a cumulative environmental impact caused by implementation of the Bay-Delta Plan Amendment.~~

The San Francisco Public Utilities Commission (SFPUC) adopted the 2020 Urban Water Management Plan (2020 plan) in June 2021.[137] The 2020 plan estimates that current and projected water supplies will be sufficient to meet future demand for retail water[138] customers through 2045 under wet- and normal-year conditions; however, in dry years, the SFPUC would implement water use and supply reductions through its Water Shortage Contingency Plan and a corresponding Retail Water Shortage Allocation Plan.[139]

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).[140] The state water board has indicated 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.

Implementation of the Bay-Delta 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 SFPUC's water supply, is currently unknown. In acknowledgment of these uncertainties, the 2020 plan presents future supply scenarios both with and without the Bay-Delta Plan Amendment, as follows:

1. Without implementation of the Bay-Delta Plan Amendment wherein the water supply and demand assumptions contained in Section 8.4 of the 2020 plan would be applicable

2. With implementation of a voluntary agreement between the SFPUC and the State Water Resources Control Board that would include a combination of flow and non-flow measures

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137 SFPUC, 2020 Urban Water Management Plan for the City and County of San Francisco, adopted June 11, 2021. This document is available at Urban Water Management Plan | SFPUC.

138 "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.

139 SFPUC, 2020 Urban Water Management Plan for the City and County of San Francisco, Appendix K – Water Shortage Contingency Plan, adopted June 11, 2021. This document is available at Urban Water Management Plan | SFPUC.

140 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, available at *https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf*.

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 wherein the water supply and demand assumptions contained in Section 8.3 of the 2020 plan would be applicable

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.[141]

Under these three scenarios, the SFPUC would have adequate water to meet demand in San Francisco through 2045 in wet and normal years.[142] Without implementation of the Bay-Delta Plan Amendment, water supplies would be available to meet demand in all years except for a 4.0 million gallons per day (5.3 percent) shortfall in years four and five of a multiple year drought based on 2045 demand.

With implementation of the Bay-Delta Plan Amendment, shortfalls would range from 11.2 million gallons per day (15.9 percent) in a single dry year to 19.2 million gallons per day (27.2 percent) in years two through five of a multiple year drought based on 2025 demand levels and from 20.5 million gallons per day (25.4 percent) in a single dry year to 28.5 million gallons per day (35.4 percent) in years four and five of a multiple year drought based on 2045 demand.

The proposed project does 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 SFPUC must prepare water supply assessments for certain large "water demand" projects, as defined in CEQA Guidelines section 15155.[143] The proposed project would result in 143,908 square

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141 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.

142 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.

143 Pursuant to CEQA Guidelines section 15155(a)(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.

feet of non-life science laboratory space; as such it does not qualify as a "water-demand" project as defined by CEQA Guidelines section 15155(a)(1) and a water supply assessment is not required and has not been prepared for the project. The following discussion considers the potential water supply impacts for projects – such as the proposed project – that do not qualify as "water-demand" projects.

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 project-only analysis is not provided for this topic. The following analysis instead considers whether the proposed project in combination with both existing development and projected growth through 2045 would require new or expanded water supply facilities, the construction or relocation of which could have significant impacts on the environment that were not identified in the PEIR. 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 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 the maximum water demand for projects that do not meet the definitions provided in CEQA Guidelines section 15155(a)(1).[144] The development proposed by the project would represent 28.8 percent of the 500,000 square feet of commercial space provided in section 15155(a)(1)(A) and (B), respectively. 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 substantially less than 50,000 gallons per day of water.

(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 650,000 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.

144 Memorandum, from Steven R. Ritchie, Assistant General Manager, Water Enterprise, San Francisco Public Utilities Commission to Lisa Gibson, Environmental Review Officer, San Francisco Planning Department – Environmental Planning, May 31, 2019.

Assuming the project would demand no more than 50,000 gallons of water per day, its water demand would represent a small fraction of the total projected demand, ranging at most from 0.07 to 0.06 percent between 2025 and 2045. As such, the project's water demand would not 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 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's maximum demand would represent less than 0.06 percent of the total demand in 2045 when the retail supply shortfall projected to occur with implementation of the Bay-Delta Plan Amendment would be up to 35.4 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 improve overall water supply resilience through an alternative water supply program. The SFPUC has taken action to fund the study of additional water supply projects, but it has not determined the feasibility of the possible 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 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 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 would not make a considerable contribution to a cumulative environmental impact caused by implementation of the Bay-Delta Plan Amendment. Project impacts related to water supply would be less than significant.

Impact UT-3: The proposed project would not 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. *(Less than Significant)*

Implementation of the proposed project would not increase the residential population but would increase the employment population at the project site by 550-700 employees. The proposed project would incorporate water-efficient fixtures, as required by Title 24 of the California Code of Regulations and the San Francisco Green Building Ordinance. Compliance with these regulations

would reduce wastewater flows to the Southeast Water Pollution Control Plant. The San Francisco Public Utilities Commission's infrastructure capacity plans account for projected population and employment growth. For these reasons, implementation of the proposed project would not exceed the capacity of the Southeast Water Pollution Control Plant to treat wastewater flows from the project site. This impact would be less than significant, and no mitigation measures are necessary.

Impact UT-4: The proposed project would not 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. ***(Less than Significant)***

In September 2015, the city approved an agreement with Recology, Inc., for the transport and disposal of the city's municipal solid waste at the Recology Hay Road Landfill in Solano County. The city began disposing its municipal solid waste at Recology Hay Road Landfill in January 2016, and that practice is anticipated to continue for approximately nine years, with an option to renew the agreement thereafter for an additional six years. San Francisco had a goal of 75 percent solid waste diversion by 2010, which it exceeded at 80 percent diversion, and has a goal of 100 percent solid waste diversion or "zero waste" to landfill or incineration by 2020. The San Francisco Construction and Demolition Debris Recovery Ordinance requires mixed construction and demolition debris to be transported by a registered transporter to a registered facility that must recover for reuse or recycling and divert from landfill at least 65 percent of all received construction and demolition debris. The San Francisco Green Building Code also requires certain projects to submit a recovery plan to the San Francisco Department of the Environment demonstrating recovery or diversion of at least 75 percent of all demolition debris. The San Francisco Mandatory Recycling and Composting Ordinance requires all properties and everyone in San Francisco to separate solid waste into recyclables, compostables, and landfill trash. The proposed project would be subject to these ordinances and all other applicable statutes and regulations related to solid waste. This impact would be less than significant, and no mitigation measures are necessary.

Impact C-UT-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact on utilities and service systems. ***(Less than Significant)***

Implementation of the proposed project, in combination with cumulative development in the project vicinity, would result in the construction of up to approximately 2,426 dwelling units and up to approximately 2.8 million sf of non-residential space. These cumulative development projects 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 80 percent of its solid waste from landfills. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on utilities and service systems.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
13. PUBLIC SERVICES. 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?	☐	☐	☒	☐	☐

The proposed project's impacts on parks are discussed under Section E.9, Recreation. Impacts on other public services are discussed below.

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

The project site receives fire protection and emergency medical services from the San Francisco Fire Department, which includes Fire Station No. 25 at 3305 3rd Street, approximately 2,500 feet southwest of the project site.[145] The project site receives police protection services from the San Francisco Police Department's Bayview Station at 201 Williams Avenue, approximately 3.3 mile southwest of the project site.[146] Implementation of the proposed project would add no residents and 550-700 employees on the project site, which would increase the demand for fire protection, emergency medical, and police protection services. This increase in demand would be marginal given the overall demand for such services on a citywide basis. Fire protection, emergency medical, and police protection resources are regularly redeployed based on need in order to maintain acceptable service ratios. For these reasons, implementation of the proposed project would not require the construction of new or alteration of existing fire and police facilities. This impact would be less than significant, and no mitigation measures are necessary.

Impact PS-2: The proposed project could 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)***

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145 San Francisco Fire Department website, *https://sf-fire.org/fire-station-locations*, accessed June 28, 2019.

146 San Francisco Police Department website, *https://www.sanfranciscopolice.org/your-sfpd/sfpd-stations/station-finder*, accessed June 28, 2019.

Implementation of the proposed project would result in the construction of a 143,900-sf laboratory, which would include up to 550-700 employees. Although some of these employees may have school-aged children, the project would not substantially increase the demand for school services, given the small number of employees that would occupy the proposed building.

For these reasons, implementation of the proposed project would not result in a substantial unmet demand for school facilities and would not require the construction of new or alteration of existing school facilities. This impact would be less than significant, and no mitigation measures are necessary.

Impact PS-3: The proposed project 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)***

Implementation of the proposed project would add no residents and approximately 550-700 employees on the project site, which could increase the demand for other public services such as libraries. This increase in demand would not be substantial given the overall demand for library services on a citywide basis. The San Francisco Public Library operates the main library and 27 branches throughout San Francisco.[147] It is anticipated that the Excelsior Branch (0.35 mile northeast of the project site) and the Ingleside Branch (one mile west) would be able to accommodate the minor increase in demand for library services generated by the proposed project. For these reasons, implementation of the proposed project would not require the construction of new or alteration of existing governmental facilities. This impact would be less than significant, and no mitigation measures are necessary.

Impact C-PS-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact on public services. ***(Less than Significant)***

The geographic contexts 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. Implementation of the proposed project, in combination with cumulative development in the project vicinity, would result in the construction of up to approximately 2,426 dwelling units and up to approximately 2.8 million sf of non-residential space. The Fire Department, the Police Department, the school district, and other city agencies have accounted for such growth in providing public services to the residents of San Francisco. In addition, fire protection, emergency medical, and police protection resources are regularly redeployed based on need in order to maintain acceptable service ratios. Nearby cumulative development projects would be subject to many of the same development impact fees applicable to the proposed project. For these reasons, the proposed project would not combine with past, present, and reasonably

[147] San Francisco Public Library website, *http://sfpl.org/pdf/libraries/sfpl421.pdf*, accessed June 28, 2019.

foreseeable future projects in the project vicinity to create a significant cumulative impact on public services.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
14.	**BIOLOGICAL RESOURCES: Would the project:**					
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐	☐
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?	☐	☐	☐	☐	☒
c)	Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐	☒
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐	☐
f)	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐	☒

The project site is currently used as a storage site for portable storage containers. It 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 14b, 14c, and 14f are not applicable to the proposed project.

Impact BI-1: The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. ***(No Impact)***

The project site and project vicinity are in an urban environment with high levels of human activity. The project site is currently used as a storage of shipping containers. Any candidate, sensitive, or special-status specie have been previously extirpated (lost) from the area.

There is one existing tree, which has a diameter at breast height of about 64 inches, located near the south property line on the project site. There are 14 existing trees located outside of the project site, along the project site's east and south property lines. The proposed project would remove the existing tree on the project site and would trim or remove the 11 existing trees along the east property line as necessary to accommodate construction. The project would not remove or trim any other existing trees. There are no known candidate, sensitive, or special-status birds that nest on the tree on the project or any of the trees along the east and south property lines.[148]

For these reasons, implementation of the proposed project would have a less-than-significant impact on candidate, sensitive, or special-status species.

Impact BI-2: The proposed project would not 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. *(Less than Significant)*

San Francisco is within the Pacific Flyway, a major north-south route of travel for migratory birds along the western portion of the Americas. The project site is fully developed and is not considered an urban bird refuge.[149, 150]

Multi-story buildings are potential obstacles that can injure or kill birds in the event of a collision, and bird strikes are a leading cause of worldwide declines in bird populations. Planning code section 139, Standards for Bird-Safe Buildings, establishes building design standards to reduce avian mortality rates associated with bird strikes. This ordinance focuses on location-specific hazards and building feature-related hazards. Location-specific hazards apply to buildings in, or within 300 feet of and having a direct line of sight to, an urban bird refuge. The project site is not in or within 300 feet of an urban bird refuge, so the standards related to location-specific hazards are not applicable to the proposed project.[151] Feature-related hazards, which can occur on buildings anywhere in San Francisco, are defined as freestanding glass walls, wind barriers, skywalks, balconies, and greenhouses on rooftops that have unbroken glazed segments of 24 square feet or larger. The proposed project does not include any elements that are considered

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148 Will Mollard, Principal, Workshop1, Project Sponsor, Email to Kei Zushi, Senior Environmental Planner, San Francisco Planning Department, *Information Confirmation Request: 1111 Pennsylvania Avenue Project (Case No. 2018-002951ENV)*, July 14, 2021, *https://sfplanninggis.org/pim/*, accessed July 21, 2021.

149 An urban bird refuge is defined by San Francisco Planning Code section 139(c)(1) as an open spaces two acres and larger dominated by vegetation, including vegetated landscaping, forest, meadows, grassland, or wetlands, or open water.

150 San Francisco Planning Department, *Urban Bird Refuge Map*, *https://sfplanning.org/resource/urban-bird-refuge*, accessed August 12, 2020.

151 *Ibid*.

feature-related hazards and would therefore comply with the feature-related standards of planning code section 139 by using bird-safe glazing treatment on 100 percent of any feature-related hazards.[152]

As discussed above, there is only one existing tree, which has a diameter at breast height of about 64 inches, near the south property line on the project site. There are 14 existing trees located outside of the project site, along the project site's east and south property lines. These trees could provide habitat for migratory birds passing through San Francisco. The proposed project would remove the existing tree on the project site and would trim or remove the 11 existing trees along the east property line as necessary to accommodate construction. The project would not remove or trim any other existing trees. The proposed project would be required to comply with the federal Migratory Bird Treaty Act and the California Fish and Game Code, the latter of which provides that it is unlawful to take or possess any migratory nongame bird or needlessly destroy nests of birds except as otherwise outlined in the code.[153] The California Department of Fish and Wildlife (CDFW) enforces the code by requiring projects to incorporate measures to avoid and minimize impacts to nesting birds if any tree removal would occur during the nesting or breeding season. For example, a qualified biologist would conduct a tree survey within 15 days before the start of construction occurring from March through May or 30 days before the start of construction occurring from June through August. These surveys would help establish the presence of any nesting birds that would need to be protected through avoidance and minimization measures. Additionally, the CDFW may require notification if any active nests are identified, including consultation with the CDFW and establishment of construction-free buffer zones. Compliance with existing federal and state regulations would ensure that project impacts related to nesting birds would be less-than-significant.

With the exception of migratory birds that may nest in the existing trees on the project site, as discussed above, there are no resident or migratory fish or wildlife species, no established native resident or migratory wildlife corridors, and no native wildlife nursery sites on the subject property.

For these reasons, implementation of the proposed project would not 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. This impact would be less than significant, and no mitigation measures are necessary.

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

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[152] Will Mollard, Principal, Workshop1, Project Sponsor, Email to Kei Zushi, Senior Environmental Planner, San Francisco Planning Department, *Information Confirmation Request: 1111 Pennsylvania Avenue Project (Case No. 2018-002951ENV)*, July 14, 2021, *https://sfplanninggis.org/pim/*, accessed July 21, 2021.

[153] California Fish and Game Code section 3503.

As discussed above, the project site contains only one existing tree that would be removed as part of the proposed project. 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.[154] Implementation of the proposed project would include the planting of 12 street trees along Pennsylvania Avenue and 25th Street, subject to approval by San Francisco Public Works. The proposed project would not conflict with any local policies or ordinances that protect biological resources. This impact would be less than significant, and no mitigation measures are necessary.

Impact C-BI-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to biological resources. ***(Less than Significant)***

Cumulative development in the project vicinity would result in the construction of multi-story buildings that could injure or kill birds in the event of a collision and would result in the removal of existing street trees or other vegetation. Nearby cumulative development projects would be subject to the same bird-safe building and urban forestry ordinances applicable to the proposed project. Moreover, there are no known candidate, sensitive, or special-status species occurring or any riparian habitat or other sensitive natural community present in the project vicinity. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on biological resources.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
15. GEOLOGY AND SOILS. Would the project:					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					

[154] Street trees and significant trees are defined in Article 16, sections 802 and 810A, respectively, of the San Francisco Public Works Code.
"Street Tree" is defined to mean any tree growing within the public right-of-way, including unimproved public streets and sidewalks, and any tree growing on land under the jurisdiction of the Department. "Street Tree" does not include any other forms of landscaping.
"Significant Tree" is defined to mean a tree: (1) on property under the jurisdiction of the Department of Public Works or (2) on privately owned-property with any portion of its trunk within 10 feet of the public right-of-way, and (3) that satisfies at least one of the following criteria: (a) a diameter at breast height (DBH) in excess of twelve (12) inches, (b) a height in excess of twenty (20) feet, or (c) a canopy in excess of fifteen (15) feet.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐	☐
	ii) Strong seismic ground shaking?	☐	☐	☒	☐	☐
	iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	☐
	iv) Landslides?	☐	☐	☒	☐	☐
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	☐
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?	☐	☐	☒	☐	☐
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?	☐	☐	☒	☐	☐
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?	☐	☐	☐	☐	☒
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐	☐

The proposed project would not use septic tanks or alternative wastewater disposal systems. Therefore, Topic E.15(e) is not applicable.

A geotechnical investigation was conducted to assess the geologic conditions underlying the project site and provide recommendations related to the proposed project's design and construction. The findings and recommendations are presented in a geotechnical report and are summarized below.[155] The geotechnical report concludes that from a geotechnical standpoint the proposed project can be constructed as proposed, provided that the recommendations presented in the geotechnical report are incorporated into the project plans and implemented during construction.

[155] Rockridge Geotechnical, *Geotechnical Investigation, Proposed Industrial Building, 1111 Pennsylvania Avenue, San Francisco, California* (hereinafter "*Geotechnical Report*"), April 1, 2019, https://sfplanninggis.org/PIM/, accessed June 2021.

The geotechnical investigation included the drilling of five test borings on the project site to refusal in bedrock at depths ranging from approximately 10 feet to 26 feet below ground surface (bgs) and three dynamic penetrometer tests (DPTs).[156] The project site is generally underlain by fill and native soil that are underlain by bedrock. The top of bedrock is located at approximately street grade along the project site's northern property line along 25th Street. The bedrock surface slopes down to the southeast and was encountered at a depth of approximately 25.5 feet bgs at the southeastern corner of the site.

The report indicates that no groundwater was encountered in all five borings, but anticipates that perched water and groundwater seepage at the soil-bedrock interface may occur after periods of heavy rain.

Impact GE-1: The proposed project 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 projects the project site is not within an Alquist-Priolo Earthquake Fault Zone, and there are no known potentially active or faults that run underneath. The geotechnical report concludes that risk of fault offset at the project site from a known active fault is very low.[157]

The proposed project is required to comply with the seismic safety standards set forth in the California Building Code and the San Francisco Building Code. The Department of Building Inspection (building department) is the city agency responsible for reviewing the proposed project's building permit application, structural drawings and calculations, and geotechnical report and ensuring that the proposed project complies with the seismic safety standards and other applicable requirements. Project compliance with the building code would ensure that the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure would be low.

The project site is not located in a landslide hazard zone, and therefore the potential for risk of loss, injury, or death related to landslides would be low.[158] The geotechnical report also indicates that the project site is not located in an earthquake-induced landslide zone. The project site is not in a liquefaction hazard zone.[159,160] The geotechnical report concludes that the potential for liquefaction

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156 The DPT consists of manually driving a 1.4-inch-diameter cone-tipped probe with a 30-pound hammer falling 15 inches.

157 Rockridge Geotechnical, *Geotechnical Investigation, Proposed Industrial Building, 1111 Pennsylvania Avenue, San Francisco, California* (hereinafter "*Geotechnical Report*"), April 1, 2019, *https://sfplanninggis.org/PIM/*, accessed June 2021.

158 San Francisco Planning Department, GIS database geology layer, accessed July 1, 2019.

159 *Ibid.*

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

to occur at the site is very low, given that no groundwater was encountered in the borings performed as part of the geotechnical investigation.

For these reasons, the proposed project would not cause potential substantial adverse effects, including risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, liquefaction, or landslides. This impact would be less than significant, and no mitigation measures are necessary.

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

The project site is partially paved and is currently used as a storage site of shipping containers. Construction activities on the project site would result in the loss of topsoil. The project's site preparation and excavation activities would disturb soil to a depth of up to 22 feet bgs, with a total of approximately 8,540 cubic yards of soil excavated during the project construction period. Thus, the project has the potential to create windborne and waterborne soil erosion. Sloping terrain is more susceptible to soil erosion than flat terrain. The project site generally slopes downward from the northwestern corner (near the Pennsylvania Avenue/25 Street intersection) to the south and east. The elevation near the project site's northwestern corner is approximately 20 feet higher than the elevation at the project site's southeastern corner.

Pursuant to San Francisco Public Works Code section 146 et seq., any construction project that disturbs more than 5,000 sf of ground surface requires the development and implementation of an erosion and sediment control plan. The proposed project, involving the soil disturbance of approximately 39,000 square feet, would be subject to this requirement, and compliance with this requirement would ensure that the proposed project would not result in substantial soil erosion. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-3: The proposed project would not be located on a geologic unit that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. ***(Less than Significant)***

As discussed under Impact GE-1, the potential for landslide, liquefaction, or lateral spreading at the project site is low. In addition, the proposed project is 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: site preparation and fill placement; utility trenches; building foundation; floor slab; basement walls; temporary cuts and shoring; cantilever soldier pile and lagging shoring system; soldier pile and lagging shoring system with tiebacks; tieback testing; construction monitoring; and seismic design. Implementation of these recommendations would ensure that the proposed project would not cause the soil underlying the project site to become unstable and result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-4: The proposed project would not create substantial risks to life or property 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 nearby surface soils change from saturated to a low-moisture-content condition and back again. The expansion potential of the soil underlying the project site, as measured by its plasticity index, has not yet been determined. As part of the design-level geotechnical report prepared for the proposed project, the San Francisco Building Code requires an analysis of the project site's potential for impacts related to soil expansion and, if applicable, the implementation of measures to address any impacts. For this reason, the proposed project would not create substantial risks to life or property as a result of being located on expansive soil. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-5: The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. ***(Less than Significant with Mitigation)***

A unique geologic or physical feature embodies distinctive characteristics of any regional or local geologic principles, provides a key piece of information important to geologic history, contains minerals not known to occur elsewhere in the county, and/or is used as a teaching tool. The project site is partially paved and is currently used as a storage site of portable containers. No unique geologic features exist at the project site. Therefore, the proposed project would have no impact on unique geologic features.

Paleontological resources, or fossils, are the remains, imprints, or traces of mammals, plants, and invertebrates from a previous geological period. Such fossil remains as well as the geological formations that contain them are also considered a paleontological resource. Together, they represent a limited, non-renewable scientific and educational resource. The potential to affect fossils varies with the depth of disturbance, construction activities, and previous disturbance.

The project site is underlain by Pleistocene alluvium and is generally underlain by fill and native soil that are underlain by bedrock.[161] The top of bedrock is located at approximately street grade along the project site's northern property line along 25th Street. The bedrock surface slopes down to the southeast and was encountered at a depth of approximately 25.5 feet bgs at the southeastern corner of the site.[162] The boring results in the geotechnical report prepared for the project indicate that medium to dense clay and sand and Jurassic-age Great Valley complex serpentinite bedrock are present within the project site.

Although it is generally rare for this type of bedrock to contain previously undiscovered fossil specimens, construction of the proposed project could affect undiscovered unique paleontological

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161 Rockridge Geotechnical, *Geotechnical Investigation, Proposed Industrial Building, 1111 Pennsylvania Avenue, San Francisco, California* (hereinafter "*Geotechnical Report*"), April 1, 2019, *https://sfplanninggis.org/PIM/*, accessed June 2021.

162 *Ibid.*

resources, given the depth and volume of excavation (up to 22 feet bgs and 8,450 cubic yards, respectively) during the project construction. Thus, the project sponsor would be required to implement Mitigation Measures M-GE-1a: Worker Environmental Awareness Training and M-GE-1b: Discovery of Unanticipated Paleontological Resources, as described below, to reduce the proposed project's potentially significant impacts to paleontological resources.

Mitigation Measure M-GE-5a: Worker Environmental Awareness Training

Prior to commencing construction, the project sponsor shall ensure that all workers are trained on the contents of the Paleontological Resources Alert Sheet, as provided by the planning department. 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 project sponsor (through a designated representative) shall inform construction personnel of the immediate stop work procedures and contact information to be followed if bones or other potential fossils are unearthed at the project site, and the laws and regulations protecting paleontological resources. As new workers arrive at the project site for ground disturbing activities, they would be trained by the construction supervisor.

The project sponsor shall submit a letter confirming the timing of the worker training to the planning department. 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 planning department within five (5) business days of conducting the training.

Mitigation Measure M-GE-5b: Discovery of Unanticipated Paleontological Resources

In the event of the discovery of an unanticipated paleontological resource during construction, excavations within 25 feet of the find shall temporarily be halted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). Work within the sensitive area shall resume only when deemed appropriate by the qualified paleontologist in consultation with the planning department.

The qualified paleontologist shall determine if: 1) the discovery is scientifically significant; 2) the necessity for involving other agencies and stakeholders; 3) the significance of the resource; and 4) 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. The Paleontological Evaluation Letter shall be submitted to the planning department for review within 30 days of the discovery.

If a paleontological resource is determined to be of scientific importance, and there are no feasible avoidance measures a Paleontological Mitigation Program (mitigation program) must

be prepared by the qualified paleontologist engaged by the project sponsor. The mitigation program shall include measures to fully document and recover the resource. The mitigation program shall be approved by the planning department. Ground disturbing activities in the project area shall resume and be monitored as determined by the qualified paleontologist for the duration of such activities in collaboration with the planning department, once work is resumed.

The mitigation program shall include: 1) procedures for construction monitoring at the project site; 2) fossil preparation and identification procedures; 3) curation 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 project sponsor shall be responsible for the preparation and implementation of the mitigation program, in addition to any costs necessary to prepare and identify collected fossils, and for any curation fees charged by the paleontological repository. The mitigation program shall be submitted to the planning department for review within 10 business days of the discovery. The paleontology report shall be submitted to the planning department for review within 30 business days from conclusion of ground disturbing activities, or as negotiated following consultation with the planning department.

Implementation of Mitigation Measures M-GE-1a and M-GE-1b would reduce potentially significant impacts to a less-than-significant level.

Impact C-GE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to geology and soils. ***(Less than Significant with Mitigation)***

Environmental impacts related to geology and soils are generally site-specific. Nearby cumulative development projects would be subject to the same seismic safety standards and design review procedures applicable to the proposed project. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact related to geology and soils.

Topics:			Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
16.	**HYDROLOGY AND WATER QUALITY. Would the project:**						
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		☐	☐	☒	☐	☐
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?		☐	☐	☒	☐	☐
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 off-site;	☐	☐	☒	☐	☐
	ii)	Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐	☐
	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?	☐	☐	☒	☐	☐
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?		☐	☐	☐	☒	☐
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?		☐	☐	☒	☐	☐

Impact HY-1: The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. *(Less than Significant)*

Project-related wastewater and stormwater would flow into the city's combined stormwater/sewer system and would be treated to standards contained in the city's National Pollutant Discharge Elimination System (NPDES) permit for the Southeast Water Pollution Control Plant prior to discharge into San Francisco Bay. The NPDES standards are set and regulated by the San Francisco Bay Area Regional Water Quality Control Board.

The project would be required to comply with article 4.2 of the San Francisco Public Works Code, section 147 (Stormwater Management). The intent of the city's stormwater management program is to reduce the volume of stormwater entering the city's combined and separate sewer systems and to protect and enhance the water quality of receiving waters, pursuant to, and consistent with federal and state laws, lawful standards and orders applicable to stormwater and urban runoff control, and the city's authority to manage and operate its drainage systems. Therefore, the

proposed project operations would not violate water quality standards or waste discharge requirements.

Construction activities such as excavation, earthmoving, and grading would expose soil and could result in erosion and excess sediments being carried in stormwater runoff to the combined stormwater/sewer system. In addition, stormwater runoff from temporary on-site use and storage of vehicles, fuels, waste, and other hazardous materials could carry pollutants to the combined stormwater/sewer system if proper handling methods are not employed. Runoff from the project site would drain into the city's combined stormwater/sewer system, ensuring that such runoff is properly treated at the Southeast Water Pollution Control Plant before being discharged into San Francisco Bay.

The proposed project would disturb more than 5,000 square feet of ground surface and is subject to the San Francisco Construction Site Runoff Ordinance. Accordingly, the project sponsor must prepare and implement an erosion and sediment control plan during project construction. Compliance with this ordinance would reduce the potential for sediments and other pollutants to enter the combined stormwater/sewer system. The erosion and sediment control plan must include best management practices designed to prevent discharge of sediment and other pollutants from the site and is subject to review and approval by the San Francisco Public Utilities Commission (SFPUC).

As discussed in Section E.15, Geology and Soils, the project site is underlain by Pleistocene alluvium and is generally underlain by fill and native soil that are underlain by bedrock.[163] The top of bedrock is located at approximately street grade along the project site's northern property line along 25th Street. The bedrock surface slopes down to the southeast and was encountered at a depth of approximately 25.5 feet bgs at the southeastern corner of the site.[164] The geotechnical report prepared for the proposed project indicates that no groundwater was encountered in all five borings, but anticipates that perched water and groundwater seepage at the soil-bedrock interface may occur after periods of heavy rain.

The proposed project's excavation and permanent structures have the potential to encounter groundwater, which could impact water quality. Any groundwater encountered during construction or operation of the proposed project would be subject to the requirements of the San Francisco Sewer Use Ordinance, as supplemented by San Francisco Public Works Order No. 158170, requiring a permit from the Wastewater Enterprise Collection System Division of the SFPUC. A permit may be issued only if an effective pretreatment system is maintained and operated. Each permit for such discharge shall contain specified water quality standards and may require the project sponsor to install and maintain meters to measure the volume of the discharge into the combined stormwater/sewer system. If wells are used for groundwater dewatering, the

163 Rockridge Geotechnical, *Geotechnical Investigation, Proposed Industrial Building, 1111 Pennsylvania Avenue, San Francisco, California* (hereinafter "*Geotechnical Report*"), April 1, 2019, *https://sfplanninggis.org/PIM/*, accessed June 2021.

164 *Ibid.*

project would be required to comply with San Francisco's Soil Boring and Well Regulation Ordinance, adopted as article 12B of the San Francisco Health Code, requiring a permit from the Department of Public Health for operation of a well and from the SFPUC for use of well water.

For these reasons, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. ***(Less than Significant)***

As discussed under Impact HY-1, the geotechnical report prepared for the proposed project indicates that no groundwater was encountered in all five borings, but anticipates that perched water and groundwater seepage at the soil-bedrock interface may occur after periods of heavy rain.[165] The proposed project's excavation has the potential to encounter groundwater, which could affect groundwater supplies. Although dewatering may be required during construction, any effects related to lowering the water table would be temporary and would not be expected to substantially deplete groundwater resources. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-3: The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces, in a manner that would result in substantial erosion, siltation, or flooding on- or off-site, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. ***(Less than Significant)***

At present, the project site is partially paved (approximately 82 percent, or 31,528 square feet, of the 38,298-sf project site is covered with impervious surface). The project would result in an impervious area of 38,298 square feet (100 percent of the project site), resulting in a 21 percent increase[166] in the impervious area on the project site. As discussed under Impact GE-2, the project sponsor would be required to develop and implement an erosion and sediment control plan to minimize soil erosion during excavation and construction activities. Further, as discussed under Impact HY-1, the project sponsor would be required to comply with article 4.2 of the San Francisco Public Works Code, section 147 (Stormwater Management). Because the proposed project would implement an erosion and sediment control plan and comply with the stormwater management requirements, the proposed project would not create or contribute a substantial amount of runoff

[165] *Ibid.*

[166] 38,298 sf / 31,528 sf = 1.21.

water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Therefore, this impact would be less than significant, and no mitigation measures are necessary.

Impact HY-4: The proposed project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. ***(No Impact)***

There are no dams or levees near the project site. As shown on Map 6, Potential Inundation Areas Due to Reservoir Failure, in the Community Safety Element of the *General Plan*, the project site is not in an area that would be flooded in the event that an existing dam or levee fails.[167]

As shown on Map 5, Tsunami Hazard Zones, San Francisco, 2012, in the Community Safety Element of the General Plan, the project site is not in a tsunami hazard zone, so the proposed project would not be at risk of inundation by tsunami.[168] A seiche is a periodic oscillation (rise and fall) of the surface of an enclosed or semi-enclosed body of water that can be caused by atmospheric or seismic disturbances. Tidal records for San Francisco Bay show that the 1906 earthquake caused a seiche of approximately 4 inches. A temporary 4-inch rise in the water level of San Francisco Bay would not reach the project site, which is approximately 40 feet higher than Islais Creek located approximately 0.5 mile to the south. Therefore, the proposed project would not be at risk of inundation by seiche.

For these reasons, the proposed project would have no impact related to the release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.

Impact HY-5: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. ***(Less than Significant)***

As discussed under Impact HY-1, project-related wastewater and stormwater would flow into the city's combined stormwater/sewer system and would be treated to standards contained in the city's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant prior to discharge into San Francisco Bay. Groundwater encountered during construction or operation of the proposed project would be required to meet certain water quality standards before being discharged into the combined stormwater/sewer system. As discussed under Impact HY-2, the proposed project would not permanently or substantially deplete groundwater resources. For these reasons, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This impact would be less than significant, and no mitigation measures are necessary.

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[167] San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 17, *https://generalplan.sfplanning.org/Community_Safety_Element_2012.pdf*, accessed August 12, 2020.

[168] San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 15, *https://generalplan.sfplanning.org/Community_Safety_Element_2012.pdf*, accessed August 12, 2020.

Impact C-HY-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to hydrology and water quality. *(Less than Significant)*

Implementation of the proposed project, in combination with cumulative development in the project vicinity, would result in the construction of up to approximately 2,426 dwelling units and up to approximately 2.8 million sf of non-residential space. This cumulative development would result in an incremental increase in water consumption and wastewater generation. The SFPUC has accounted for such growth in its service projections. Nearby cumulative development projects would be subject to the same water conservation, stormwater management, and wastewater discharge ordinances applicable to the proposed project. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact related to hydrology and water quality.

Topics:		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
17.	**HAZARDS AND HAZARDOUS MATERIALS. Would the project:**					
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☐	☒
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐	☐

The project site is not located within an area covered by an airport land use plan or within two miles of a public airport or a public use airport. Therefore, Topic 17e is not applicable to the proposed project.

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

The proposed project's laboratory use would involve the use of relatively small quantities of hazardous materials, such as cleaners and disinfectants and chemical agents for routine sanitation purposes. These products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. When tenant spaces are maintained, remodeled, or sold, the maintenance and renovation activities would also include the use of paints, glues, and other materials similar to those used during construction. Laboratories and research and development (R&D) uses could involve the use of other hazardous materials for research purposes that may be toxic, flammable, ignitable, reactive, oxidizing, or explosive. Operations of the proposed laboratory use may also result in the production of minor amounts of hazardous or medical waste requiring offsite disposal or recycling.

The use and storage of hazardous materials during project operations would comply with the requirements of article 21 of the health code, and the management of hazardous wastes would be conducted in accordance with article 22 of the health code, which provides for the safe handling of hazardous materials and wastes in San Francisco. Laboratories and R&D uses that generate medical wastes would be required to manage their wastes under article 25 of the health code.

Under article 21 of the health code, 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. Under article 25 of the health code, medical waste generators must obtain a permit from the health department, file a medical waste management plan, and maintain individual treatment and tracking records. The medical waste generator must also have an emergency action plan and waste transporters must be appropriately licensed.

Further, the vendors responsible for delivery of hazardous materials must comply with various federal and state laws, including regulations of the California Highway Patrol and the California

Department of Transportation related to the transportation of hazardous materials. Under these regulations, all hazardous waste transporters must have identification numbers.[169]

With compliance with these regulatory requirements, the project's operational impacts related to the routine use, transport, and disposal of hazardous materials would be less than significant. Thus, no mitigation measures are necessary.

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

The project site includes no existing buildings and is currently used as a storage for shipping containers. Thus, the project would not include demolition of existing buildings, which could release asbestos-containing material, lead, or other hazardous materials into the environment. The boring results in the geotechnical report prepared for the project indicate that the project site is underlain by serpentinite bedrock.[170]

Serpentinite commonly contains naturally occurring chrysotile asbestos or tremolite-actinolite, a fibrous mineral that can be hazardous to human health if airborne emissions are inhaled. The proposed project would involve construction throughout the project site. In the absence of proper controls, fugitive dust and airborne asbestos could become airborne during excavation and handling of excavated materials. On-site workers and the public could be exposed to airborne asbestos unless appropriate control measures are implemented. Although the California Air Resources Board has not identified a safe exposure level for asbestos in residential areas, exposure to low levels of asbestos for short periods of time poses minimal risk.[171] To address health concerns from exposure to airborne asbestos, the California Air Resources Board enacted an Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations in July 2001. The requirements established by the Asbestos Airborne Toxic Control Measure are contained in California Code of Regulations Title 17, section 93105 and are enforced by the Bay Area Air Quality Management District (air district).

The air district is to be notified 10 days in advance of any proposed demolition or asbestos abatement work. The notification must include (1) the address of the operation; (2) the names and addresses of those who are responsible; (3) the location and description of the structure to be

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169 These laws and regulations include: the California Vehicle Code; California Highway Patrol regulations (contained in Title 13 of the California Code of Regulations); the California State Fire Marshal regulations (contained in Title 19 of the California Code of Regulations); U.S. Department of Transportation regulations (Title 49 of the Code of Federal Regulations); and U.S. EPA regulations (contained in Title 40 of the Code of Federal Regulations).

170 Rockridge Geotechnical, *Geotechnical Investigation, Proposed Industrial Building, 1111 Pennsylvania Avenue, San Francisco, California* (hereinafter "*Geotechnical Report*"), April 1, 2019, *https://sfplanninggis.org/PIM/*, accessed June 2021.

171 California Air Resources Board, Fact Sheet #1 Health Information on Asbestos, 2002, *http://www.arb.ca.gov/toxics/Asbestos/1health.pdf*, accessed August 13, 2020.

altered, including size, age, prior use, and the approximate amount of friable asbestos; (4) scheduled start and completion dates for the asbestos abatement work; (5) nature of the planned work and methods to be employed; (6) procedures to be employed to meet air district requirements; (7) and the name and location of the waste disposal site to be used. The air district randomly inspects asbestos removal operations and will inspect any removal operation about which a complaint has been received. Any asbestos-containing building material disturbance at the project site would be subject to the requirements of air district Regulation 11, Rule 2: Hazardous Materials; Asbestos Demolition, Renovation, and Manufacturing.

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

Therefore, through compliance with existing laws and regulations, impacts related to exposure to hazardous building materials during demolition would be less than significant, and no mitigation measures are necessary.

Impact HZ-3: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. ***(Less than Significant)***

There is one existing school within one-quarter mile of the project site: Star King Elementary School (0.5 mile northwest). As discussed under Impact HZ-1, the proposed project would include the use of common household items in quantities too small to create a significant hazard to the public or the environment. As discussed in Impact HZ-1, the proposed laboratory may use hazardous materials or generate hazardous or medical wastes. With compliance with regulatory requirements in the health code and federal and state laws, the project's operational impacts related to the routine use, transport, and disposal of hazardous materials would be less than significant. Thus, no mitigation measures are necessary.

Impact HZ-4: The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5. ***(Less than Significant)***

The project site is located in a Maher area, meaning that it is known or suspected to contain contaminated soil and/or groundwater.[172] The project site is listed on the Cortese List under Government Code section 65962.5.[173] The proposed project would require excavation to a depth of up to 22 feet below ground surface and the disturbance of more than 50 cubic yards of soil. For these reasons, the proposed project is subject to the Maher Ordinance, which is administered by the San Francisco Department of Public Health (health department).

The Maher Ordinance[174] requires sponsors for projects that disturb more than 50 cubic yards of soil to retain the services of a qualified professional to prepare a Phase I Environmental Site Assessment that meets the requirements of Health Code section 22.A.6. The Phase I Environmental Site Assessment addresses the potential for site contamination and level of exposure risk associated with the proposed project. Based on that information, the project sponsor may be required to conduct soil and/or 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 agencies and to remediate any site contamination in accordance with an approved site mitigation plan prior to the issuance of any building permit.

In compliance with the Maher Ordinance, the project sponsor has prepared a Phase I Environmental Site Assessment[175] and Subsurface Investigation Work Plan and Report[176] for the health department's review under the Maher Ordinance. The Phase I Environmental Site Assessment states that the project site was developed with multiple residential dwellings along eastern lower portion by 1900. By 1969, the project site was redeveloped with a single-canopy gasoline service station and associated commercial structure and remained as a gasoline service station until 1991, by which time all structures were demolished and all underground storage tanks and associated piping had been removed from the project site.

After reviewing Phase I Environmental Site Assessment and the Subsurface Investigation Work Plan and Report, the health department found that the proposed project complied with Article 22 with the preparation and implementation of a site mitigation plan and dust control plan during

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172 San Francisco Planning Department, GIS database Maher Map layer, accessed August 12, 2020.

173 California State Water Resources Control Board, GeoTracker, 1111 Pennsylvania Ave, San Francisco, CA 94107, *https://geotracker.waterboards.ca.gov/profile_report?global_id=T0607500127*, accessed August 13, 2020.

174 San Francisco Department of Public Health, Environmental Health, Maher Ordinance and Voluntary Remedial Action, *https://www.sfdph.org/dph/EH/HazWaste/hazWasteSiteMitigation.asp*, accessed August 13, 2020.

175 ACC Environmental Consultants, *Phase I Environmental Site Assessment Report, 1111 Pennsylvania Avenue, San Francisco, California, 94107, Project Number: 1672-002.00*, February 5, 2018, *https://sfplanninggis.org/PIM/*, accessed June 2021.

176 San Francisco Department of Public Health, SFHC Article 22A Compliance / Site Mitigation & Dust Control Plan Request, 1111 Pennsylvania Avenue, EHB-SAM No. SMED: 1774, September 12, 2019, *https://sfplanninggis.org/PIM/*, accessed June 2021.

the project construction.[177] Both of these plans must be reviewed and approved by the health department prior to the commencement of construction activities.

Required compliance with the Maher Ordinance and implementation of the dust control plan and health and safety plan would ensure that the proposed project would result in a less-than-significant impact related to hazardous materials, and no mitigation measures are necessary.

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

In San Francisco, fire safety is ensured through the provisions of the building code and the Fire Code. During the review of the building permit application, the building department and the fire department would review the project plans for compliance with all regulations related to fire safety, which may include the development of an emergency procedure manual or an exit drill plan for the residents of the proposed project. Compliance with fire safety regulations would ensure that the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan or expose people or structures to a significant risk of loss, injury, or death involving wildland fires. This impact would be less than significant, and no mitigation measures are necessary.

Impact C-HZ-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to hazards and hazardous materials. ***(Less than Significant)***

Environmental impacts related to hazards and hazardous materials are generally site-specific. The proposed project could result in potential impacts related to hazardous materials due to construction activities within potentially contaminated soil and demolition of structures that contain hazardous building materials. However, compliance with applicable regulatory requirements would reduce those impacts to less-than-significant levels. Nearby cumulative development projects would be subject to the same regulations related to hazardous materials applicable to the proposed project. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact related to hazards and hazardous materials.

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[177] San Francisco Department of Public Health, *SFHC Article 22A Compliance / Site Mitigation & Dust Control Plan Request*, 1111 Pennsylvania Avenue, EHB-SAM No. SMED: 1774, September 12, 2019, *https://sfplanninggis.org/PIM/*, accessed June 2021.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
18. MINERAL RESOURCES. Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒	☐
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?	☐	☐	☐	☒	☐

Impact MR-1: The proposed project would not result in the loss of availability of a known mineral resource or a locally-important mineral resource recovery site. ***(No Impact)***

All land in 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.[178] 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 would have no impact on mineral resources.

Impact C-MR-1: The proposed project, in combination with past, present, and reasonably foreseeable future 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 development projects would have no impact on mineral resources. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on mineral resources.

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[178] California Division of Mines and Geology, *Open File Report 96-03, 1996, and Special Report 146 Parts I and II*, 1986.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
19. ENERGY. 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?	☐	☐	☒	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐	☐

Impact EN-1: The proposed project would not result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. ***(Less than Significant)***

In California, energy consumption in buildings is regulated by Title 24 of the California Code of Regulations. Title 24 includes standards that regulate energy consumption for the heating, cooling, ventilation, and lighting of residential and nonresidential buildings. In San Francisco, documentation demonstrating compliance with Title 24 standards is required to be submitted with a building permit application. Compliance with Title 24 standards is enforced by the building department. The proposed project would comply with the standards of Title 24 and the requirements of the San Francisco Green Building Ordinance and would be built to GreenPoint Rated standards, thus minimizing the amount of fuel, water, or energy used during its construction and operational phases. The proposed project would not encourage activities that result in the use of large amounts of fuel, water, or energy, or use them in a wasteful manner. This impact would be less than significant, and no mitigation measures are necessary.

Impact C-EN-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to energy. ***(Less than Significant)***

Nearby cumulative development projects would be subject to the same energy conservation, water conservation, recycling and composting, and construction and demolition debris ordinances applicable to the proposed project. For this reason, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact related to energy.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
20. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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:**					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☒
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))?	☐	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or forest land to non-forest use?	☐	☐	☐	☐	☒

The project site does not contain agricultural uses, is not zoned for agricultural use, and is not subject to a Williamson Act contract.[179] The project site does not contain forest land or timberland as defined in CEQA sections 12220(g) and 4526, respectively. Therefore, Topics 20a through 20e are not applicable to the proposed project or cumulative development projects.

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[179] California Department of Conservation, *Important Farmland in California, 2016*, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed June 27, 2019.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
21.	**WILDFIRE. 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?	☐	☐	☐	☐	☒
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?	☐	☐	☐	☐	☒
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?	☐	☐	☐	☐	☒
d)	Expose people or structure to significant risks including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☐	☒

The project site is not in or near any state responsibility areas for fire prevention or lands classified as very high fire hazard severity zones.[180] Therefore, Topics 21a through 21d are not applicable to the proposed project or cumulative development projects.

Please see Section E.17, Hazards and Hazardous Materials, for additional discussion of impacts related to wildland fires.

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[180] California Department of Fire and Forest Protection, Fire Resource Assessment Program, Fire Hazard Severity Zones viewer, *https://egis.fire.ca.gov/FHSZ/*, accessed April 7, 2020.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
22. MANDATORY FINDINGS OF SIGNIFICANCE. 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?	☐	☒	☐	☐	☐
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.)	☐	☐	☒	☐	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐

Note: Authority cited: Sections 21083 and 21083.05, 21083.09 Public Resources Code. Reference: Section 65088.4, Gov. 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, Public Resources Code; 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.

The proposed project would not 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, or reduce the number or restrict the range of a rare or endangered plant or animal. As discussed in Section E.3, Cultural Resources, with the implementation of Mitigation Measure M-CR-2: Archeological Testing, the proposed project would result in a less-than-significant on archeological resources or previously unknown human remains. As discussed in Section E.4, Tribal Cultural Resources, with the implementation of Mitigation Measure M-TC-1: Tribal Cultural Resources Archeological Resource Preservation Plan and/or Interpretive Program, the proposed project would result in a less-than-significant impact on tribal cultural resource. As discussed in Section E.15, Geology and Soils, with the implementation of Mitigation Measures M-GE-5a: Worker Environmental Awareness Training and M-GE-5b: Discovery of Unanticipated Paleontological Resources, the proposed project would result in a less-than-significant impact on paleontological resource. For these reasons, the proposed project would not result in the elimination of important examples of major periods of California history or prehistory.

The proposed project would not combine with past, present, or reasonably foreseeable future projects to create significant cumulative impacts related to any of the topics discussed in Section E,

Evaluation of Environmental Effects. There would be no significant cumulative impacts to which the proposed project would make cumulatively considerable contributions.

As discussed in Section E, Evaluation of Environmental Effects, the proposed project is anticipated to only result in less-than-significant impacts for the topics included in the Initial Study checklist. The foregoing analysis identifies potentially significant impacts related to cultural resources, tribal cultural resources, noise, and paleontological resources, which would be mitigated through implementation of mitigation measures, as described in the following paragraphs and in more detail in Section F, Mitigation Measures.

As discussed in Section E.3, Cultural Resources, construction of the proposed project could cause a substantial adverse change in the significance of an archeological resource. Implementation of Mitigation Measure M-CR-2: Archeological Testing would reduce this impact to a less-than-significant level. As discussed in Section E.4, Tribal Cultural Resources, construction of the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource. Implementation of Mitigation Measure M-TC-1: Tribal Cultural Resources Archeological Resource Preservation Plan and/or Interpretive Program would reduce this impact to a less-than-significant level. As discussed in Section E.6, Noise, construction of the proposed project could generate substantial temporary or periodic increases in ambient noise levels in the project vicinity. Implementation of Mitigation Measure M-NO-1: Construction Noise Reduction would reduce this impact to a less-than-significant level. As discussed in Section E.7, Air Quality, construction of the proposed project could result in a significant impact on nearby air quality sensitive receptors. Implementation of Mitigation Measure M-AQ-2: Construction Air Quality would reduce this impact to a less-than-significant level. As discussed in Section E.15, Geology and Soils, construction of the proposed project could cause a substantial adverse impact on paleontology resources. Implementation of Mitigation Measures M-GE-5a: Worker Environmental Awareness Training and M-GE-5b: Discovery of Unanticipated Paleontological Resources would reduce this impact to a less-than-significant level. For these reasons, the proposed project would not result in environmental effects that would cause substantial adverse effects on human beings.

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F. MITIGATION MEASURES

The following mitigation measures have been identified to reduce potentially significant environmental impacts resulting from the proposed project to less-than-significant levels.

Mitigation Measure M-CR-2: 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 archaeological consultant from the rotational department Qualified Archaeological Consultants List (QACL) maintained by the planning department archaeologist. After the first project approval action or as directed by the Environmental Review Officer (ERO), the project sponsor shall contact the department archeologist to obtain the names and contact information for the next three archeological consultants on the QACL. 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 ERO. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines section 15064.5 (a) and (c).

Consultation with Descendant Communities. On discovery of an archeological site[181] associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group an appropriate representative[182] of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO 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

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

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

Final Archaeological Resources Report shall be provided to the representative of the descendant group.

Archeological Testing Program. The archeological consultant shall prepare and submit to the ERO for review and approval an archeological testing plan (ATP). The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that 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 ERO. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the ERO in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include 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 ERO or the planning department archeologist.

If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, the ERO, 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 ERO 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 ERO in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented the archeological monitoring program shall minimally include the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO 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 archaeological 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 ERO until the ERO has, in consultation with project archeological consultant, determined that project construction activities could have no effects on significant archeological deposits;
- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archeological deposit is encountered, all 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. If in the case of pile driving or deep foundation activities (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving or deep foundation activities may affect an archeological resource, the pile driving or deep foundation activities shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, and present the findings of this assessment to the ERO.

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

Archeological Data Recovery Program. The archeological data recovery program shall be conducted in accord with an archeological data recovery plan (ADRP). The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected 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 ADRP shall include the following elements:

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

- *Cataloguing and Laboratory Analysis*. Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy*. Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program*. Consideration of an on-site/off-site public interpretive program during the course of the 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 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 (MLD). The MLD 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 (CEQA section 5097.98). The ERO also shall be notified immediately upon the discovery of human remains.

The project sponsor and ERO shall make all reasonable efforts to develop a Burial Agreement ("Agreement") with the MLD, 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 MLD agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archaeological 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 ERO to accept treatment recommendations of the MLD. However, if the ERO, project sponsor and MLD are unable to reach an Agreement on scientific treatment of the remains and associated or unassociated funerary objects, the ERO, 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 archaeological treatment documents, and in any related agreement established between the project sponsor, Medical Examiner and the ERO.

Final Archeological Resources Report. The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. The Draft FARR shall include a curation and deaccession plan for all recovered cultural materials. The Draft FARR shall also include an Interpretation Plan for public interpretation of all significant archeological features.

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

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

In the event of the discovery of an archaeological resource of Native American origin, the Environmental Review Officer (ERO), 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 (TCR) 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 to ensure the permanent protection of the resource.

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 the project archeologist, shall prepare an interpretive program of the TCR in consultation with affiliated Native American tribal representatives and the project sponsor. 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, artifacts displays and educational panels or other informational displays. Upon approval by the ERO and prior to project occupancy, the interpretive program shall be implemented by the project sponsor.

Mitigation Measure M-NO-1: Construction Noise Reduction

Prior to issuance of the first construction document or any demolition, grading or shoring permits the property owner shall submit a project-specific construction noise control plan to the ERO or the ERO's designee for approval. The construction noise control plan shall be prepared by a qualified acoustical engineer, with input from the construction contractor, and include all feasible measures to reduce construction noise. The construction noise control plan shall identify noise control measures to meet a performance target of not increasing noise levels from construction activities by more than 10 dBA above the ambient noise level at noise sensitive receptors. The property owner shall ensure that requirements of the construction noise control plan are included in contract specifications. The plan shall also include measures for notifying the public of construction activities, complaint procedures, and a plan for monitoring construction noise levels in the event complaints are received. The construction noise control plan shall include the following measures to the degree feasible, or other effective measures, to reduce construction noise levels:

- Use construction equipment that is in good working order, and inspect mufflers for proper functionality;
- Select "quiet" construction methods and equipment (e.g., improved mufflers, use of intake silencers, engine enclosures);
- Use construction equipment with lower noise emission ratings whenever possible, particularly for air compressors;
- Prohibit the idling of inactive construction equipment for more than five minutes;
- Locate stationary noise sources (such as compressors) as far from nearby noise sensitive receptors as possible, muffle such noise sources, and construct barriers around such sources and/or the construction site.
- Avoid placing stationary noise-generating equipment (e.g., generators, compressors) within noise-sensitive buffer areas (as determined by the acoustical engineer) immediately adjacent to neighbors.
- Enclose or shield stationary noise sources from neighboring noise-sensitive properties with noise barriers to the extent feasible. To further reduce noise, locate stationary equipment in pit areas or excavated areas, if feasible; and

- Install temporary barriers, barrier-backed sound curtains and/or acoustical panels around working powered impact equipment and, if necessary, around the project site perimeter. When temporary barrier units are joined together, the mating surfaces shall be flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that completely closes the gaps, and dense enough to attenuate noise.

The construction noise control plan shall include the following measures for notifying the public of construction activities, complaint procedures and monitoring of construction noise levels:

- Designation of an on-site construction noise manager for the project;

- Notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of high-intensity noise-generating activities (e.g., pier drilling, pile driving, and other activities that may generate noise levels greater than 90 dBA or 10 dBA above ambient at noise sensitive receptors) about the estimated duration of the activity;

- A sign posted on-site describing noise complaint procedures and a complaint hotline number that shall always be answered during construction;

- A procedure for notifying the planning department of any noise complaints within one week of receiving a complaint;

- A list of measures for responding to and tracking complaints pertaining to construction noise. Such measures may include the evaluation and implementation of additional noise controls at sensitive receptors (residences, hospitals, convalescent homes, schools, churches, hotels and motels, and sensitive wildlife habitat); and conduct noise monitoring (measurements) at the beginning of major construction phases (e.g., demolition, grading, excavation) and during high-intensity construction activities to determine the effectiveness of noise attenuation measures and, if necessary, implement additional noise control measures.

Mitigation Measure M-AQ-2: Construction Air Quality

The project sponsor or contractor shall provide the planning department with a certification statement that the sponsor or contractor agrees to fully comply with the following requirements which shall be included in contract specifications:

A. Engine Requirements.
   1. All off-road equipment greater than 25 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed either U.S. Environmental Protection Agency (U.S. EPA) or California

Air Resources Board (ARB) Tier 2 off-road emission standards, and have been retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off-road emission standards automatically meet this requirement.

2. Where access to alternative sources of power are available, portable diesel engines shall be prohibited.
3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the two-minute idling limit.
4. The contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

B. Waivers.

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

Table – Off-Road Equipment Compliance Step-down Schedule

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

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

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

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

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

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

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

Mitigation Measure M-GE-5a: Worker Environmental Awareness Training

Prior to commencing construction, the project sponsor shall ensure that all workers are trained on the contents of the Paleontological Resources Alert Sheet, as provided by the planning department. 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 project sponsor (through a designated representative) shall inform construction personnel of the immediate stop work procedures and contact information to be followed if bones or other potential fossils are unearthed at the project site, and the laws and regulations protecting paleontological resources. As new workers arrive at the project site for ground disturbing activities, they would be trained by the construction supervisor.

The project sponsor shall submit a letter confirming the timing of the worker training to the planning department. 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 planning department within five (5) business days of conducting the training.

Mitigation Measure M-GE-5b: Discovery of Unanticipated Paleontological Resources

In the event of the discovery of an unanticipated paleontological resource during construction, excavations within 25 feet of the find shall temporarily be halted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). Work within the sensitive area shall resume only when deemed appropriate by the qualified paleontologist in consultation with the planning department.

The qualified paleontologist shall determine if: 1) the discovery is scientifically significant; 2) the necessity for involving other agencies and stakeholders; 3) the significance of the resource; and 4) 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. The Paleontological Evaluation Letter shall be submitted to the planning department for review within 30 days of the discovery.

If a paleontological resource is determined to be of scientific importance, and there are no feasible avoidance measures a Paleontological Mitigation Program (mitigation program) must be prepared by the qualified paleontologist engaged by the project sponsor. The mitigation program shall include measures to fully document and recover the resource. The mitigation program shall be approved by the planning department. Ground disturbing activities in the project area shall resume and be monitored as determined by the qualified paleontologist for the duration of such activities in collaboration with the planning department, once work is resumed.

The mitigation program shall include: 1) procedures for construction monitoring at the project site; 2) fossil preparation and identification procedures; 3) curation 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 project sponsor shall be responsible for the preparation and implementation of the mitigation program, in addition to any costs necessary to prepare and identify collected fossils, and for any curation fees charged by the paleontological repository. The mitigation program shall be submitted to the planning department for review within 10 business days of the discovery. The paleontology report shall be submitted to the planning department for review within 30 business days from conclusion of ground disturbing activities, or as negotiated following consultation with the planning department.

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G.1 PUBLIC NOTICE AND COMMENT

On January 24, 2020, the planning department mailed a Notification of Project Receiving Environmental Review to owners of properties within 300 feet of the project site, adjacent occupants, and neighborhood groups. Overall, concerns and issues raised by the public in response to the notice were taken into consideration and incorporated in the environmental review as appropriate.

The planning department received comments expressing concerns about:

- increased shadow on Tunnel Top Park;
- soil contamination from a leaking underground storage tank;
- lack of available parking in the project site vicinity;
- design of the proposed building and streetscape; and
- protection of industrial uses.

The concerns related to a lack of available parking in the project site vicinity, protection of industrial uses, and design of the proposed building and streetscape are not issues required to be analyzed under CEQA. These issues are related to the merits of the proposed project and may be considered by the city decision-makers during their deliberations on whether to approve the proposed project.

As discussed in Section D, Summary of Environmental Effects, the proposed project is an employment center project on an infill site in a transit priority area. Pursuant to CEQA section 21099, aesthetics and parking shall not be considered in determining if a project has the potential to result in significant environmental effects. The proposed project's design compatibility with the existing architectural character of the neighborhood may be considered by city decision-makers during their deliberations on whether to approve the proposed project.

Impacts related to shadow on Tunnel Top Park are discussed in Section E.10, Shadow. Impacts related to soil contamination are discussed in Section E.17, Hazards and Hazardous Materials.

G.2 Notice of Intent to Adopt a Mitigated Negative Declaration

On July 28, 2021, the planning department circulated a Notice of Availability and Intent to Adopt a Mitigated Negative Declaration. The notice was circulated to the state clearinghouse, 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 Pennsylvania Avenue and 25th Street. During the 30-day public comment period, the planning department received a comment letter on the preliminary mitigated negative declaration from Caltrans related to transportation and circulation. The letter discusses

several standard requirements applicable to construction activities near the state right-of-way, including transportation and encroachment permits that may be required for the proposed project. The planning department response to this letter is presented in Appendix A.

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.

Devyani Jain

Lisa Gibson
Environmental Review Officer
for
Richard Hillis
Director of Planning

DATE July 28, 2021

I. INITIAL STUDY PREPARERS

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Environmental Planning Division
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San Francisco, CA 94103

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Appendix A

San Francisco Planning

49 South Van Ness Avenue, Suite 1400
San Francisco, CA 94103
628.652.7600
www.sfplanning.org

September 24, 2021

Mr. Mark Leong
District Branch Chief
Local Development – Intergovernmental Review
California Department of Transportation, District 4
Office of Transit and Community Planning
P.O. BOX 23660, MS-10D | Oakland, CA 94623-0660

RE: 1111 Pennsylvania Avenue Project
SCH #: 2021070560
Planning Department Case No. 2018-002951ENV

Dear Mr. Leong,

We have reviewed the California Department of Transportation (Caltrans) comment letter dated on August 26, 2021 regarding the preliminary mitigated negative declaration (PMND) for the above-referenced project. We appreciate your comments.

As discussed in the PMND, the planning department finds that the proposed project would not result in any significant transportation or circulation impact requiring mitigation under CEQA. Based on your comment letter and a phone call that Kei Zushi, the project environmental review coordinator, had with Yunsheng Luo, Associate Transportation Planner at Caltrans, on September 1, 2021, we understand that Caltrans is not requesting that the planning department make any revision to the PMND or impose any additional mitigation measure on the proposed project.

Should you have further comments or concerns, please contact Kei Zushi at 628-652-7495 or kei.zushi@sfgov.org or me at 628-652-7571 or lisa.gibson@sfgov.org.

Sincerely,

Devyani Jain

for
Lisa Gibson
Environmental Review Officer