



# SAN FRANCISCO PLANNING DEPARTMENT

---

## Preliminary Mitigated Negative Declaration

*Date:* December 12, 2018  
*Case No.:* **2016-011043ENV**  
*Project Title:* **159 & 161 Charter Oak Avenue**  
*Zoning:* RH-1 (Residential – House, One Family) Use District  
40-X Height and Bulk District  
*Block/Lot:* 5377/070 and 5377/071  
*Lot Size:* 8,928 square feet (Lots 070 and 071 combined)  
*Project Sponsor:* Jeremy Schaub, Schaub Ly Architects, Inc. – (415) 682-8060, Ext. 103  
[jeremy@slasf.com](mailto:jeremy@slasf.com)  
*Lead Agency:* San Francisco Planning Department  
*Staff Contact:* Jennifer McKellar – (415) 575-8754  
[jennifer.mckellar@sfgov.org](mailto:jennifer.mckellar@sfgov.org)

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

Reception:  
**415.558.6378**

Fax:  
**415.558.6409**

Planning  
Information:  
**415.558.6377**

### PROJECT DESCRIPTION:

The 8,928-square-foot, triangular-shaped project site consists of two vacant lots (Assessor's Blocks 5377/070 and 5377/071) located on the east side of Charter Oak Avenue in the block bound by Helena, Elmira and Augusta streets in the Bayview neighborhood of San Francisco. The proposed project would merge and subdivide the two lots into four new lots with a shared driveway and construct four, three-story, approximately 34-foot-tall, single-family residential units with rear yards. Each residential unit would include one vehicle parking space in a private ground-level garage and one class 1 bicycle space in either a ground-level garage or designated ground-floor location. A new 10-foot-wide curb cut at the terminus of Charter Oak Avenue would provide access to an approximately 103-foot-long by 20-foot-wide common driveway; the west side of the driveway would be bordered by a three-foot-wide concrete walkway serving all four residential units. The proposed project would also include the creation of a mutual easement, conveyed in perpetuity and recorded with the City of San Francisco as a third party, for site access.

A four-foot-tall wood fence constructed on a three-foot-tall concrete curb would border the walkway along the western property line, providing separation from the adjacent Caltrans right of way landscape area. Three trees located in the Caltrans right of way along the site's western property line would be removed to facilitate construction of the proposed project. The proposed project would also add a new fire hydrant in the Charter Oak Avenue right of way (opposite the adjacent Caltrans property) and extend each of the existing public sewer, water and gas lines by about 75 to 80 feet to service the project site.

Each of the proposed new residential buildings would be supported by a continuous perimeter footing foundation (or alternately, a concrete mat slab foundation with continuous perimeter footings). Construction of the proposed project would last about 18 months and require excavation of an approximately 8,470-square-foot area to a maximum depth of 6 feet below ground surface; this includes

project site excavation and excavation of three trenches in the Charter Oak Avenue right of way to accommodate the utility extensions described above. In total, approximately 705 cubic yards of soil would be removed.

**FINDING:**

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

Mitigation measures are included in this project to avoid potentially significant effects. See section F, Mitigation Measures, pages 98-102.

cc: Jeremy Schaub, Project Sponsor  
Esmeralda Jardines, Current Planning Division  
Supervisor Malia Cohen, District 10  
Master Decision File  
Distribution List

# INITIAL STUDY TABLE OF CONTENTS

## 159 & 161 Charter Oak Avenue

---

<u>Section</u>	<u>Page</u>
A. PROJECT DESCRIPTION .....	3
B. PROJECT SETTING .....	6
C. COMPATIBILITY WITH EXISTING ZONING AND PLANS.....	8
D. SUMMARY OF ENVIRONMENTAL EFFECTS .....	13
E. EVALUATION OF ENVIRONMENTAL EFFECTS .....	15
E.1. Land Use and Planning.....	15
E.2. Population and Housing.....	16
E.3. Cultural Resources.....	19
E.4. Transportation and Circulation .....	24
E.5. Noise.....	35
E.6. Air Quality .....	41
E.7. Greenhouse Gas Emissions .....	58
E.8. Wind and Shadow .....	62
E.9. Recreation .....	64
E.10. Utilities and Service Systems .....	65
E.11. Public Services.....	70
E.12. Biological Resources .....	72
E.13. Geology and Soils .....	76
E.14. Hydrology and Water Quality .....	82
E.15. Hazards and Hazardous Materials .....	87
E.16. Mineral and Energy Resources .....	93
E.17. Agriculture and Forestry Resources.....	95
E.18. Mandatory Findings of Significance .....	97
F. MITIGATION MEASURES.....	98
G. PUBLIC NOTICE AND COMMENT.....	102
H. DETERMINATION .....	103
I. INITIAL STUDY PREPARERS .....	104
J. APPENDIX.....	105

<u>List of Figures</u>	<u>Page</u>
Figure 1: Project Location.....	5
Figure 2: Map of Cumulative Development Projects .....	7

<u>List of Tables</u>	<u>Page</u>
Table 1: Proposed Project Summary .....	4
Table 2: Cumulative Proposed Development Projects within the Project Vicinity .....	8
Table 3: Required and Proposed Rear Yard, Front Setback and Lot Dimensions.....	9

---

Table 4: Average Daily Vehicle Miles Traveled.....27  
Table 5: Typical Noise Levels From Proposed Project Construction Equipment .....38  
Table 6: Criteria Air Pollutant Significance Thresholds .....42

# Initial Study

159 & 161 Charter Oak Avenue

Planning Department Case No. 2016-011043ENV

## A. PROJECT DESCRIPTION

### ***Project Location***

The 8,928-square-foot (0.20-acre), triangular-shaped project site consists of two lots (Assessor's Blocks 5377/070 and 5377/071) located on the east side of Charter Oak Avenue in the block bound by Helena, Elmira and Augusta streets in the Bayview neighborhood of San Francisco (Figure 1). This block was originally part of the Silver Terrace Homestead Association, which was plotted into 56 identical 25-foot x 100-foot lots. The subject property was originally seven parcels wide and contained seven single-family homes. During the I-280 highway construction, these seven homes were demolished, Charter Oak Avenue became a dead end, and the original 175-foot by 100-foot site was divided between a California Department of Transportation (Caltrans) right of way landscape area and private property. As a result, lot 071 possesses only 25 feet of frontage on the Charter Oak Avenue cul-de-sac with access to lot 070 currently provided via an easement over lot 071. The project site is vacant, but contains remnants of the previous buildings' foundations (and presumably associated utilities) embedded in the thick weeds and bushes that currently cover the site. There are no existing curb cuts providing access to the site. Private residential properties occupy the adjacent lots to the south and east.

### ***Project Characteristics***

The proposed project would merge and subdivide the two subject lots into four new lots with a shared driveway and construct four, three-story, approximately 34-foot-tall, single-family residential units, each with a rear yard (see Table 1 and Appendix, sheets A-1.1 through A-3.3). The size of each of the four-bedroom residential units would range from about 2,340 to 2,900 gross square feet. Each residential unit would include one vehicle parking space in a private ground-level garage and one class 1 bicycle space in either a ground-level garage or designated ground-floor location.<sup>1</sup> A new 10-foot-wide curb cut at the terminus of Charter Oak Avenue would provide access to an approximately 103-foot-long by 20-foot-wide common driveway; the west side of the driveway would be bordered by a three-foot-wide concrete walkway serving all four residential units. The proposed project would also include the creation of a mutual easement, conveyed in perpetuity and recorded with the City of San Francisco as a third party, for site access. A four-foot-tall wood fence constructed on a three-foot-tall concrete curb would border the walkway along the western property line, providing separation from the adjacent Caltrans right of way landscape area. Three trees located in the Caltrans right of way along the

---

<sup>1</sup> Section 155.1(a) of the planning code defines class 1 bicycle spaces as "spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, nonresidential occupants, and employees."

site’s western property line may require removal or trimming to facilitate construction of the proposed project. The proposed project would also add a new fire hydrant in the Charter Oak Avenue right of way (opposite the adjacent Caltrans property) and extend each of the existing public sewer, water and gas lines by about 75 to 80 feet to service the project site.

**Table 1. Proposed Project Summary (Source: Schaub Ly Architects, Inc.)†**

	155 Charter Oak Avenue	157 Charter Oak Avenue	159 Charter Oak Avenue	161 Charter Oak Avenue	Total
<b>Buildings</b>	1	1	1	1	4
<b>Building Stories</b>	3	3	3	3	N/A
<b>Building Height (feet)</b>	34	34	34	34	N/A
<b>Building Area (gsf)</b>	2,900	2,338	2,383	2,439	10,060
Residential	2,626	2,071	2,168	2,151	9,016
Garage	274	267	215	288	1,044
<b>Residential Units (number)</b>	1	1	1	1	4
<b>Unit Size (number of bedrooms)</b>	4	4	4	4	N/A
<b>Vehicle Parking (spaces)</b>	1	1	1	1	4
<b>Bicycle Parking (spaces)</b>	1	1	1	1	4
Class 1	1	1	1	1	4
Class 2	0	0	0	0	0

† Units are abbreviated as follows: gross square feet (gsf)

### **Project Construction**

Each of the proposed new residential buildings would be supported by a continuous perimeter footing foundation (or alternately, a concrete mat slab foundation with continuous perimeter footings). Construction of the proposed project would last about 18 months and require excavation of an approximately 8,470-square-foot area to a maximum depth of 6 feet below ground surface; this includes project site excavation and excavation of three trenches in the Charter Oak Avenue right of way to accommodate the utility extensions described above. In total, approximately 705 cubic yards of soil would be removed.



Figure 1. Project Location (Source: San Francisco Planning Department)

## **B. PROJECT SETTING**

### ***Existing Setting***

The project site is located in the block bound by Helena Street to the north, Augusta Street to the south, Charter Oak Avenue to the west and Elmira Street to the east. The northern half of the block is almost entirely occupied by the I-280 highway and associated Caltrans right of way landscape area; the remainder of the block consists of residential properties. The project site lies directly east of the Caltrans right of way landscape area. Overall, the topography of the project site is relatively flat with an average front-to-rear slope of about 6 percent;<sup>2</sup> the site was previously terraced, presumably to provide building pads for the single-family homes that formerly occupied the site. However, the northern limit (the apex of the triangular-shaped site) slopes steeply downward to the north by about 20 per cent. The topography of the project vicinity varies with location; east of the project site (a developed residential neighborhood) the terrain is generally flat, whereas north, west and southwest of the site (below the I-280 highway), the terrain slopes steeply downward (by approximately 85 percent).

The project site is located in an RH-1 (Residential-House, One Family) use district. Existing development on the project block consists of one- to two-story single-family homes. The project vicinity is characterized by a mix of residential (primarily single-family homes), institutional, recreational, retail, and production, distribution and repair (PDR) uses. Nearby zoning districts include PDR-2 (Core Production, Distribution and Repair), P (Public), NC-S (Neighborhood Commercial, Shopping Center), NC-1 (Neighborhood Commercial, Cluster) and NC-2 (Neighborhood Commercial, Small Scale). PDR-2 zoning is concentrated to the north of the project site. P (Public) zoning is distributed along the nearby I-280 and I-101 highways (approximately 50 feet northwest and 450 feet west of the project site, respectively) and on discrete sites including Thurgood Marshall Academic High School (500 feet northeast of the project site), Willie L. Brown Jr. Middle School (900 feet northeast of the project site) and Silver Terrace Playground (600 feet south of the project site). The NC zoning districts are clustered around the I-101 and I-280 highways.

The project site is well served by public transit. The San Francisco Municipal Transportation Agency (Muni) operates the following bus routes within 0.25 miles of the project site: 8-Bayshore, 8AX-Bayshore A Express, 8BX-Bayshore B Express, 9-San Bruno, 9R-San Bruno Rapid, 14X-Mission Express, 23-Monterey, 24-Divisadero and 44-O'Shaughnessy.

### ***Cumulative Project Setting***

Past, present and reasonably foreseeable cumulative development projects within a 0.25-mile radius of the project site are identified below in Figure 2 and Table 2. These cumulative projects are either under construction or the subject of an Environmental Evaluation Application or

---

<sup>2</sup> Slope average was measured from the midpoints of the front and rear property lines.

Project Application currently on file with the Planning Department. The potential cumulative effects of these projects are addressed under each environmental topic herein.

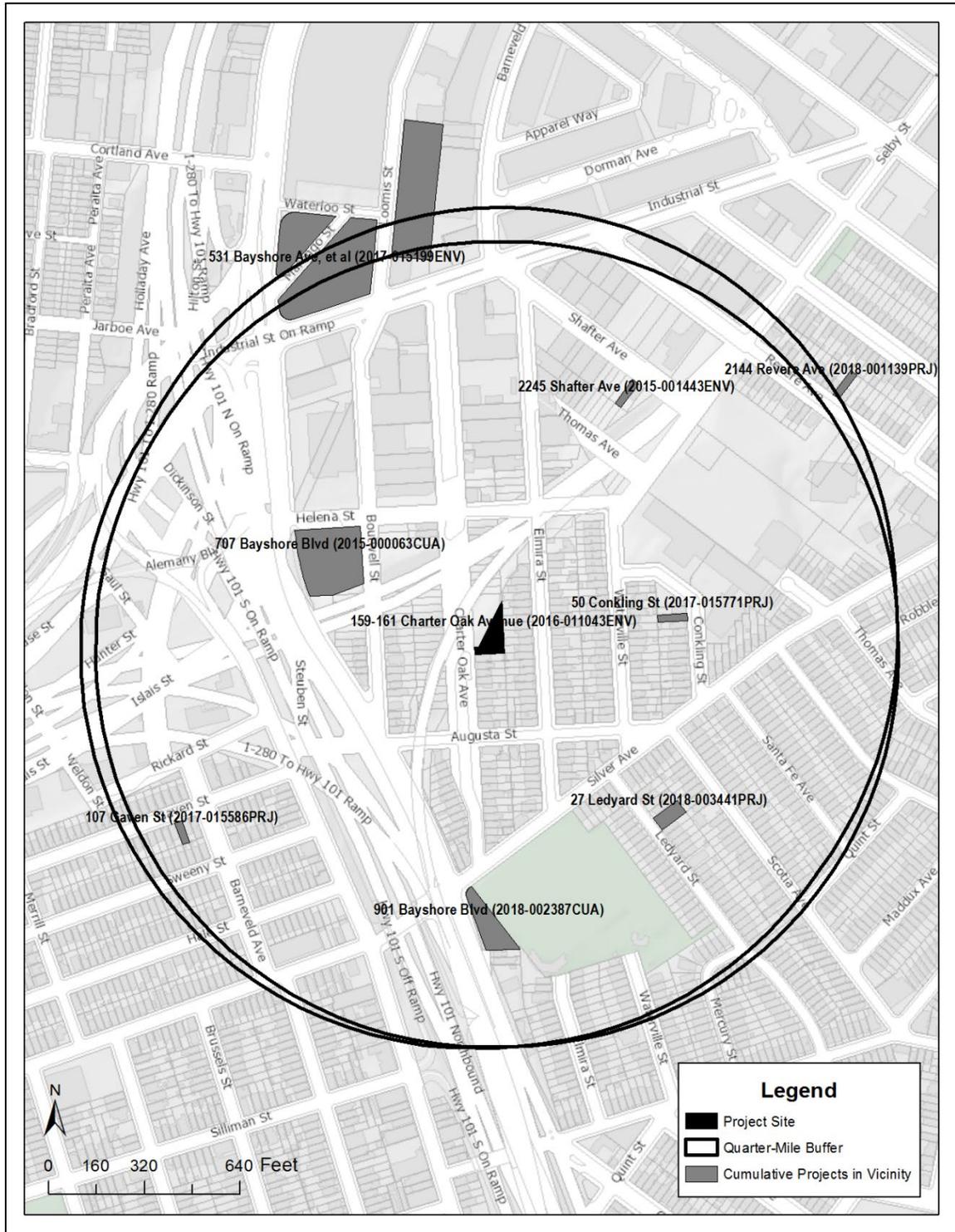


Figure 2. Map of Cumulative Development Projects (Source: San Francisco Planning Department)

**Table 2. Cumulative Proposed Development Projects within the Project Vicinity (Source: San Francisco Planning Department)**

Address (Planning Record)	Description	Dwelling Units (net change)	Net change (gross square feet)					Automotive (Non-retail)
			Residential	Retail	Office	PDR/ Industrial	Institutional	
107 Gaven St (2017-015586PRJ)	Add accessory dwelling unit (ADU) and rear deck	1	360	0	0	0	0	0
2144 Revere Ave (2018-001139PRJ)	Demolish existing garage; construct new 3-story single-family home	1	5,430	0	0	0	0	0
2245 Shafter Ave (2015-001443ENV)	Construct new 3-story commercial building	0	0	0	1,150	9,662	0	0
27 Ledyard St (2018-003441PRJ)	Addition/unit legalization	1	0	0	0	0	0	0
50 Conkling St (2017-015771PRJ)	Horizontal addition at rear of existing single-family home	0	1,725	0	0	0	0	0
531 Bayshore; 40, 55 & 75 Waterloo St.; 6-10 Marengo St; 241-261 Loomis St; and 250 Industrial St. (2017-015199ENV)	Interim use (3-5 years) of existing facilities by Yellow Cab for vehicle storage and accessory office space. Improvements include paving, re-striping, and addition of fence/screens to parking lot.	0	0	0	20,900	0	0	121,100
707 Bayshore Blvd (2015-000063CUA)	Change of use from vacant warehouse to formula retail furniture store	0	0	25,447	0	0	0	0
901 Bayshore Blvd (2018-002387CUA)	Change of use at first floor from vacant commercial space to childcare center.	0	0	0	0	0	7,860	0
<b>Total</b>		<b>3</b>	<b>7,515</b>	<b>25,447</b>	<b>22,050</b>	<b>9,662</b>	<b>7,860</b>	<b>121,000</b>

**C. COMPATIBILITY WITH EXISTING ZONING AND PLANS**

- |   |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
|   | <i>Applicable</i>                   | <i>Not Applicable</i>               |
| Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Discuss any approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from Regional, State, or Federal Agencies. | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

## San Francisco Planning Code and Zoning Maps

The Planning Code, which incorporates by reference the City’s zoning maps, governs permitted uses, densities, and the configuration of buildings within San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless: (1) the proposed project complies with the Planning Code, (2) an allowable exception or variance is granted pursuant to the provisions of the Planning Code, or (3) legislative amendments to the Planning Code are included and adopted as part of the proposed project.

### Land Use

The project site is located within an RH-1 (Residential – House, One Family) zoning district. Pursuant to Planning Code section 209.1, RH-1 districts principally permit one residential unit per lot. As described below under Project Approvals, the proposed project would seek approval to merge and subdivide the two subject lots into four new lots with a shared driveway and construct four, three-story, approximately 34-foot-tall, single-family residential units (one dwelling unit per lot).

### Lot Frontage, Lot Dimensions, Front Yard Setback, and Rear Yard Setback

Planning Code sections 121(a), 121 (d)(2), 121(e)(2), 132 and 134(a)(1) establish the minimum requirements for lot frontage, lot width, lot area, front yard setbacks and rear yard setbacks, respectively (Table 3). Due to the irregular shape of the project site, the proposed project does not meet all frontage, lot width, lot area and front yard setback requirements (Table 3). However, the proposed project is seeking approval of variances from these requirements from the Zoning Administrator (see Project Approvals below).

**Table 3. Required and Proposed Rear Yard, Front Setback and Lot Dimensions.**

Feature	Planning Code Requirements	Proposed Lot A (161 Charter Oak Ave)	Proposed Lot B (159 Charter Oak Ave)	Proposed Lot C (157 Charter Oak Ave)	Proposed Lot D (155 Charter Oak Ave)
Lot Frontage (new lots)	Frontage (minimum width of 16 feet) on public street, alley or permanent right-of-way from which vehicle access is provided to the lot	25 feet on Charter Oak Avenue	23 feet on permanent right-of-way (shared driveway easement)	34 feet on permanent right-of-way (shared driveway easement)	19.75 feet on permanent right-of-way (shared driveway easement)
Lot Width	25 feet	22 feet	23 feet	34 feet	96 feet
Lot Area	2,500 sf	2,243 sf	1,857 sf	2,195 sf	2,633 sf
Front Yard Set Back	8.96 feet (average of adjacent properties)	30.75 feet	22.79 feet	20.25 feet	0 feet
Rear Yard Set Back	25% (minimum 15 feet)	25% (25 feet)	25% (20.25 feet)	25% (16.13 feet)	55% (15 feet)

### **Vehicle and Bicycle Parking**

The Planning Code requires a minimum of one off-street vehicle parking space (section 151) and one class 1 bicycle parking space (section 155.2) per dwelling unit. Each bicycle parking space must be at least two feet wide and six feet long and located in a secure, weather protected space that is easily accessible to residents and not otherwise used for automobile parking.<sup>3</sup>

Each of the four proposed new residential units would include one off-street vehicle parking space in a private ground-level garage and one class 1 bicycle space measuring two feet wide by six feet long in either a ground-level garage or designated ground-floor location.<sup>4</sup>

### **Height and Bulk**

The project site is in a 40-X height and bulk district, which permits a maximum building height of 40 feet. The project site is also located within an RH-1 zoning district, which restricts building heights to a maximum of 35 feet. The proposed new buildings, at heights of approximately 34 feet, would comply with the limits set forth by both the 40-X and RH-1 districts. Bulk controls reduce the size of a building's floorplates as the building increases in height. Pursuant to Planning Code section 270(a), there are no bulk controls in an "X" bulk district.

## **Plans and Policies**

### **San Francisco General Plan**

The *San Francisco General Plan* (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 decision 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,

---

<sup>3</sup> San Francisco Planning Department, *Zoning Administrator Bulletin No. 9: Bicycle Parking Requirements: Design and Layout*, August 2013, [http://default.sfplanning.org/publications\\_reports/ZAB\\_BicycleParking\\_9-7-13.pdf](http://default.sfplanning.org/publications_reports/ZAB_BicycleParking_9-7-13.pdf), accessed July 19, 2018.

<sup>4</sup> Section 155.1(a) of the planning code defines class 1 bicycle spaces as "spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, nonresidential occupants, and employees."

that address the environmental issues associated with these policies, are: (1) preservation and enhancement of neighborhood-serving retail uses; (2) protection of neighborhood character (Question 1c, Land Use and Land Use Planning); (3) preservation and enhancement of affordable housing (Question 3b, Population and Housing, regarding housing supply and displacement issues); (4) discouragement of commuter automobiles (Questions 4a, 4b, 4f, and 4g, Transportation and Circulation); (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership (Question 1c, Land Use and Land Use Planning); (6) maximization of earthquake preparedness (Questions 13a through 13d, Geology and Soils); (7) landmark and historic building preservation (Question 3a, Cultural Resources); and (8) protection of open space (Questions 8a and 8b, Wind and Shadow, and Questions 9a and 9c, Recreation).

Prior to issuing a permit for any project that requires an Initial Study under CEQA, and prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action that requires a finding of consistency with the General Plan, the City is required to find that the proposed project or legislation 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 decision whether to approve or disapprove the proposed project. Any potential conflicts identified as part of that process would not alter the physical environmental effects of the proposed project.

### ***Regional Plans and Policies***

The five principal regional planning agencies and their overarching policies and plans (noted in parentheses) that guide planning in the nine-county bay area include the Association for Bay Area Governments (*Projections 2013 and Plan Bay Area*), the Bay Area Air Quality Management District (*2017 Bay Area Clean Air Plan*), the Metropolitan Transportation Commission (*Regional Transportation Plan – Transportation 2035*), the San Francisco Regional Water Quality Control Board (*San Francisco Basin Plan*), and the San Francisco Bay Conservation and Development Commission (*San Francisco Bay Plan*). Due to the size and nature of the proposed project, no anticipated conflicts with regional plans and policies would occur.

### ***Project Approvals***

- **Lot Line Adjustment/Subdivision.** The proposed project would require approval by the Department of Public Works to merge the site's two existing parcels and divide the consolidated site into four new parcels.
- **Variances.** The proposed project would require approval by the Zoning Administrator of variances from lot frontage (section 121(a)), lot width (section 121(d)(2)), lot area (section 121(e)(2) and front yard set back (section 132) requirements.

- **Demolition, site and building permits.** The proposed project would require approval of demolition, site and building permits by the Department of Building Inspection.

**Required Approvals by Other Agencies**

In addition to the required project approvals that are listed in section A., Project Description, the following permits and approvals are required.

**San Francisco Public Utilities Commission (SFPUC)**

- Approval of the extension of existing sewer, water and gas lines to service the project site and a new fire hydrant (to be located in the Charter Oak Avenue right of way)
- Approval of landscape and irrigation plans pursuant to the Water Efficient Irrigation Ordinance

**San Francisco Public Works (DPW)**

- If sidewalk(s) are used for construction staging and pedestrian walkways are constructed in the curb lane(s), approval of a street space permit from the Bureau of Street Use and Mapping is required
- Approval of construction within the public right of way (e.g., curb cuts, bulb-outs and sidewalk extensions)
- Approval of excavation within the public right of way to extend utility facilities

**California Department of Transportation (Caltrans)**

- Approval of an encroachment permit if removal of three trees located in the Caltrans right of way is required
- Approval of an encroachment permit to construct the proposed three-foot-tall curb adjacent to the Caltrans right of way

**San Francisco Municipal Transportation Agency (SFMTA)**

- If sidewalk(s) are used for construction staging and pedestrian walkways are constructed in the curb lane(s), approval of a special traffic permit from the Sustainable Streets Division is required

Pursuant to sections 31.04(h)(3) and 31.11(h) of the San Francisco Administrative Code, the approval of the project by the first City decision-making body that adopts the final mitigated negative declaration would constitute the Approval Action of the proposed project. Therefore, the issuance of the demolition, site and building permits by the Department of Building Inspection would constitute the approval action of the proposed project. The Approval Action date would establish the start of the 30-day appeal period for appeal of the Final Mitigated Negative Declaration (FMND) to the Board of Supervisors pursuant to San Francisco Administrative Code section 31.04(h). Appeal of the PMND to the planning commission is

required to be able to appeal the FMND to the Board of Supervisors pursuant to San Francisco Administrative Code section 31.16(d).

#### D. SUMMARY OF ENVIRONMENTAL EFFECTS

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

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Land Use/Planning              | <input type="checkbox"/> Greenhouse Gas Emissions  | <input type="checkbox"/> Hydrology/Water Quality                       |
| <input type="checkbox"/> Aesthetics                     | <input type="checkbox"/> Wind and Shadow           | <input type="checkbox"/> Hazards & Hazardous Materials                 |
| <input type="checkbox"/> Population and Housing         | <input type="checkbox"/> Recreation                | <input type="checkbox"/> Mineral/Energy Resources                      |
| <input checked="" type="checkbox"/> Cultural Resources  | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Agriculture and Forestry Resources            |
| <input type="checkbox"/> Transportation and Circulation | <input type="checkbox"/> Public Services           | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Noise                          | <input type="checkbox"/> Biological Resources      |  |
| <input checked="" type="checkbox"/> Air Quality         | <input type="checkbox"/> 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, staff has determined that the proposed project could not have a significant adverse environmental effect related 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 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. For each checklist item, the evaluation has considered the impacts of the proposed project both individually and cumulatively. The items checked above have been determined to be "Less than Significant with Mitigation Incorporated."

#### SENATE BILL 743

##### ***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 and the adequacy of parking in determining the significance of project impacts under CEQA.<sup>5</sup>

### ***Automobile Delay and Vehicle Miles Traveled***

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

In January 2016, OPR published for public review and comment a *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*,<sup>6</sup> which recommends that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. On March 3, 2016, in anticipation of the future certification of the revised CEQA Guidelines, the San Francisco Planning Commission adopted the OPR’s recommendation to use the VMT metric instead of automobile delay to evaluate the transportation impacts of projects (Resolution 19579). (Note: the VMT metric does not apply to the analysis of project impacts on non-automobile modes of travel such as riding transit, walking, and bicycling.) A VMT and induced automobile travel impact analysis is provided in the Transportation section.

---

<sup>5</sup> San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis for 159 & 161 Charter Oak Avenue*, March 28, 2018. This document (and all other documents cited in this report, unless otherwise noted), is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400 as part of case file no. 2016-011043ENV.

<sup>6</sup> State Office of Planning and Research, *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, [http://www.opr.ca.gov/docs/Revised\\_VMT\\_CEQA\\_Guidelines\\_Proposal\\_January\\_20\\_2016.pdf](http://www.opr.ca.gov/docs/Revised_VMT_CEQA_Guidelines_Proposal_January_20_2016.pdf), accessed March 28, 2018.

**E. EVALUATION OF ENVIRONMENTAL EFFECTS**

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
<b>1. LAND USE AND PLANNING.—</b> <b>Would the project:</b>					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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 four, three-story, single-family residences on a site that previously contained seven single-family residences. In addition, the proposed project would not alter the established street grid or permanently close any streets or sidewalks. Although portions of the sidewalk adjacent to the project site could be closed for periods of time during project construction, these closures would be temporary in nature. Therefore, the proposed project would not physically divide an established community and thus, would result in a less-than-significant impact.

**Impact LU-2: The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. (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. The proposed project would not substantially conflict with any applicable land use plan, policy, or regulation such that an adverse physical change would result (see section C, Compatibility with Existing Zoning and Plans).

Furthermore, the proposed project would not conflict with the San Francisco General Plan policies that relate to physical environmental issues.

In addition, the proposed project would not conflict with any such adopted environmental plan or policy, including the 2017 Bay Area Clean Air Plan, the Strategies to Address Greenhouse Gas Emissions (GHG Reduction Strategy) and the City’s Urban Forestry Ordinance, as discussed in section E.6, Air Quality, section E.7, Greenhouse Gas Emissions, and section E.12, Biological Resources, respectively. Therefore, the proposed project would have a less-than-significant impact with regard 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)**

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 a quarter-mile radius of the project site) includes the projects identified in Figure 2 and Table 2 of section B, Project Setting. These projects, both individually and in combination with the proposed project, would not result in the physical division of an established community, either by constructing a physical barrier to neighborhood access, removing a means of access, altering the established street grid or permanently closing any streets or sidewalks. Furthermore, these projects would not substantially conflict with any adopted environmental plan or policy, including the 2017 Clean Air Plan, the Strategies to Address Greenhouse Gas Emissions (GHG Reduction Strategy) and the City’s Urban Forestry Ordinance, as discussed in section E.6, Air Quality, section E.7, Greenhouse Gas Emissions, and section E.12, Biological Resources, respectively.

Therefore, the proposed project in combination with past, present and reasonably foreseeable future projects would not result in a significant cumulative land use impact.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>2. POPULATION AND HOUSING.—</b> <b>Would the project:</b>					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

The proposed project would construct four, four-bedroom, single-family residential units within census tract 230.01 in the Bayview neighborhood of San Francisco. The 2010 U.S. Census reported a population of approximately 805,235 residents in the City and County of San Francisco, 35,894 residents in the Bayview neighborhood<sup>7</sup> and 5,216 residents in census tract 230.01.<sup>8</sup> The proposed project would increase the population in Census Tract 230.01 by approximately ten individuals (0.2 percent), a small increase compared with the existing population in the area.<sup>9</sup>

In addition, the project site consists of two vacant lots, which previously contained seven single-family dwellings, in an urbanized area surrounded by residential uses; therefore, the proposed project would not substantially alter existing development patterns in the Bayview neighborhood, or in San Francisco as a whole. The proposed project would require the extension of existing sewer, water and gas lines by about 75 to 80 feet to service the ten individuals that would be added to the project site. However, these utility extensions do not constitute a substantial expansion of municipal infrastructure induced by population growth. Rather, they reconnect the project site to municipal infrastructure that was severed at the time the preexisting dwellings were demolished. Construction of the proposed project would result in temporary employees on the project site for the duration of the construction period. Operation of the proposed project would not result in any permanent employees on the project site.

Therefore, the project would have a less-than-significant impact related to population growth, both directly and indirectly.

<sup>7</sup> The Bayview neighborhood of San Francisco includes the following census tracts (total population in brackets): 9809 (350), 9806 (467), 612 (4,089), 610 (3,610), 234 (3,660), 233 (2,624), 232 (4,582), 231.02 (3,478), 231.03 (3,725), 230.01 (5,216) and 230.03 (4,093). According to the 2010 U.S. Census, these census tracts collectively include 35,894 residents.

<sup>8</sup> United States Census Bureau, 2010 Census, <https://www.census.gov/2010census/popmap/>, April 4, 2018.

<sup>9</sup> According to the most recent US Census data, San Francisco has an average of 2.33 persons per household (United States Census Bureau, Quick Facts, Families and Living Arrangements, Persons Per Household 2012-2016, <https://www.census.gov/quickfacts/fact/table/sanfranciscocitycalifornia,ca,US/PST045217>, accessed August 7, 2018).

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

The proposed project would not displace any residents or housing units because the project site is located on two vacant lots. Therefore, the proposed project would have a less-than-significant impact related to the displacement of housing units or people and would not necessitate the construction of replacement housing.

**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 within San Francisco. In July 2013, the Association of Bay Area Governments (ABAG) projected regional housing needs in the *Regional Housing Need Plan for the San Francisco Bay Area: 2014–2022*. The jurisdictional need of San Francisco for 2014 through 2022 is 28,869 dwelling units: 6,234 dwelling units within the very low income level (0–50 percent); 4,639 units within the low income level (51–80 percent); 5,460 units within the moderate income level (81–120 percent); and 12,536 units within the above moderate income level (120 percent plus).<sup>10</sup> These numbers are consistent with the development pattern identified in the region’s *Plan Bay Area: 2040* (Plan Bay Area), a state-mandated, integrated long-range transportation, land use, and housing plan.<sup>11</sup> As part of the planning process for Plan Bay Area, San Francisco identified Priority Development Areas, which consist of areas where new development will support the day-to-day needs of residents and workers in a pedestrian-friendly environment served by transit. The project site is located within the Bayview/Hunters Point Priority Development Area. Therefore, although the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would increase the population in the area, it would not induce substantial population growth beyond that already anticipated to occur irrespective of the proposed project.

For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, including those identified in Figure 2 and Table 2 (section B, Project Setting), would not result in a cumulatively considerable population and housing impact.

---

<sup>10</sup> Association of Bay Area Governments (ABAG), *Regional Housing Need Plan for the San Francisco Bay Area: 2014 – 2022*, July 2013, [https://abag.ca.gov/files/ABAG\\_Final\\_RHNA\\_Publication.pdf](https://abag.ca.gov/files/ABAG_Final_RHNA_Publication.pdf), accessed December 11, 2017.

<sup>11</sup> Metropolitan Transportation Commission and ABAG, *Plan Bay Area: 2040*, July 26, 2017, <http://2040.planbayarea.org/>, accessed on April 6, 2018.

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

**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 (California Register) or in an adopted local historic register. Historical resources also include resources identified as significant in a historical resource survey meeting specified 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.”

The proposed project would construct four new single-family homes on two vacant lots that are not located within a designated or potentially eligible historic district. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource, and thus its impact would be less than significant.

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

The proposed project would require excavation of an 8,470-square-foot area to a maximum depth of 6 feet below ground surface and the removal of approximately 705 cubic yards of soil.

To determine the potential for the proposed project to effect archeological resources, the Planning Department conducted a preliminary archeological review of the project site.<sup>12</sup> The preliminary review determined that there is some potential for the survival of disposal features associated with two houses that were constructed on the site in 1907. Excavating, grading, and moving heavy construction equipment could expose and damage these historic-period features, should they be present, which would result in a significant impact. This impact would be reduced to a less-than-significant level with the implementation of **Mitigation Measure M-CR-2, Accidental Discovery**, which is described in detail below.

#### **Mitigation Measure M-CR-2: Accidental Discovery**

The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in *CEQA Guidelines* section 15064.5(a) and (c), tribal cultural resources as defined in *CEQA Statute* section 21074, and human remains. The project sponsor shall distribute the Planning Department archeological resource “ALERT” sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the “ALERT” sheet is circulated to all field personnel including, machine operators, field crew, pile drivers, supervisory personnel, etc. The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet.

A preconstruction training shall be provided to all construction personnel performing or managing soils disturbing activities by a qualified archaeologist prior to the start of soils disturbing activities on the project. The training may be provided in person or using a video and include a handout prepared by the qualified archaeologist. The video and materials will be reviewed and approved by the ERO. The purpose of the training is to enable personnel to identify archeological resources that may be encountered and to instruct them on what to do if a potential discovery occurs. Images of expected archeological resource types and archeological testing and data recovery methods should be included in the training.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities

---

<sup>12</sup> San Francisco Planning Department, *Environmental Planning Preliminary Archeological Review: 159-161 Charter Oak Avenue, San Francisco, California*, January 17, 2018.

in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of an archeological consultant from the pool of qualified archeological consultants maintained by the Planning Department archaeologist. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor. The ERO may also determine that the archeological resources is a tribal cultural resource and will consultant with affiliated Native Americans tribal representatives, if warranted.

Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; an archeological testing program; and an interpretative program. If an archeological monitoring program, archeological testing program, or interpretative program is required, it shall be consistent with the Environmental Planning (EP) division guidelines for such programs. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

If human remains and associated or unassociated funerary objects are discovered during any soils disturbing activity, all applicable State and Federal Laws shall be followed, including immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The ERO shall also be immediately notified upon discovery of human remains. The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond six days after the discovery to make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of

the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO. If no agreement is reached State regulations shall be followed including the reinternment of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Pub. Res. Code Sec. 5097.98).

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

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound copy, one unbound copy and one unlocked, searchable PDF copy on CD 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 high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

**Impact CR-3: The project may disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)**

There are no known human remains, including those interred outside of formal cemeteries, located in the immediate vicinity of the project site. In the unlikely event that human remains are encountered during construction, any inadvertent damage to human remains would be considered a significant impact. Accordingly, in order to reduce this potential impact to a less-than-significant level, **Mitigation Measure M-CR-2, Accidental Discovery**, which includes the required procedures for the treatment of human remains, would apply. With implementation of **Mitigation Measure M-CR-2, Accidental Discovery**, as described above, the proposed project would have a less-than-significant impact on previously unknown human remains.

**Impact CR-4: The proposed project may cause a substantial adverse change in the significance of a tribal cultural resource. (Less than Significant with Mitigation)**

Tribal cultural resources are those resources that meet the definitions in Public Resources Code section 21074. Tribal cultural resources are defined as sites, features, places, cultural landscapes,

sacred places, and objects with cultural value to a California Native American tribe that are also either (a) included or determined to be eligible for inclusion in the California Register of Historical Resources or (b) included in a local register of historical resources as defined in Public Resources Code section 5020.1(k). Based on discussions with Native American tribal representatives, in San Francisco, prehistoric archeological resources are presumed to be potential tribal cultural resources. A tribal cultural resource is adversely affected when a project impacts its significance.

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 February 20, 2018, the Planning Department mailed a “Tribal Notification Regarding Tribal Cultural Resources and CEQA” to the appropriate 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.

As noted under Impact CR-2, the proposed project could result in a significant impact to archeological resources. In the event that prehistoric archeological resources are damaged, the proposed project would have a significant impact on tribal cultural resources. With implementation of **Mitigation Measure M-CR-2, Accidental Discovery**, as described above, the proposed project would have a less than significant effect on tribal cultural resource. For these reasons, the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, and this impact would be less than significant.

**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)**

As discussed above, the proposed project would not cause a substantial adverse change in the significance of a historical resource because there are no buildings on the project site that are historically significant or in proximity to a historic district, thus the proposed project would have no direct impact on historic resources.

Cumulative impacts on archeological resources and human remains are site-specific and generally limited to the immediate construction area. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable impact on archeological resources, tribal cultural resources, and human remains.

Therefore, the proposed project would not make a considerable contribution to any cumulative impact on cultural resources that could result from past, present, or reasonably foreseeable future projects in the project vicinity.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>4. TRANSPORTATION AND CIRCULATION— Would the project:</b>					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project would not interfere with air traffic patterns because the project site is not located within an airport land use plan area, or in the vicinity of a private airstrip. Therefore, topic 4c is not applicable.

As described above, the 8,928-square-foot, approximately triangular-shaped project site consists of two irregular-shaped lots located on the east side of Charter Oak Avenue in the block bound

by Charter Oak Avenue and Helena, Elmira and Augusta streets in the Bayview neighborhood of San Francisco. The site includes 25 feet of frontage at the terminus of Charter Oak Avenue and lies adjacent to a California Department of Transportation (Caltrans) right of way landscape area to the north and west, and private residential properties to the south and east. The project site is currently vacant.

The proposed project would merge and subdivide the two existing lots into four new lots with a shared driveway and construct four new single-family residential units with one off-street vehicle parking space and one class 1 bicycle space each. In total, the project would include four class 1 bicycle spaces and four vehicle parking spaces. A new 10-foot-wide curb cut at the terminus of Charter Oak Avenue would provide access to an approximately 20-foot-wide common driveway with a three-foot-wide concrete walkway serving all four residential units. A four-foot-tall wood fence constructed on a three-foot-tall concrete curb would border the walkway and provide separation from the adjacent Caltrans right of way.

The project site is accessible from Charter Oak Avenue via Augusta Street; both are two-way, two-lane neighborhood residential streets<sup>13</sup> with parallel parking lanes on both sides. Charter Oak Avenue runs north/south and dead ends to the north at the project site. Augusta Street runs east/west and intersects Charter Oak Avenue approximately one block east of Bayshore Boulevard and one block west of Elmira Street. Two-way stop signs regulate vehicle and pedestrian flows at the closest intersections to the project site (the intersections at Charter Oak Avenue/August Street and Elmira Street/Augusta Street); curb ramps are missing at most of the intersections in the project vicinity. Neither Charter Oak Avenue nor Elmira Street has been identified as a high injury corridor on the Vision Zero High Injury Network.<sup>14</sup> Bayshore Boulevard, located approximately two blocks west of the project site, is considered a residential throughway, commercial throughway<sup>15</sup> and secondary transit street<sup>16</sup> and consists of four travel lanes (two northbound and two southbound) and two bicycle lanes (one northbound and one southbound); it has been identified as a high injury corridor on the Vision Zero High Injury Network.<sup>17</sup> Silver Avenue, located approximately two blocks south of the project site, is

---

<sup>13</sup> San Francisco Planning Department, San Francisco Better Streets Plan: Street Types, <https://www.sfbetterstreets.org/design-guidelines/street-types/>, accessed April 6, 2018. Neighborhood residential streets are characterized by relatively low traffic volumes and speeds.

<sup>14</sup> San Francisco Department of Public Health, Vision Zero High Injury Network: 2017, <http://sfgov.maps.arcgis.com/apps/webappviewer/index.html?id=fa37f1274b4446f1bddd7bdf9e708ff>, accessed April 9, 2018.

<sup>15</sup> San Francisco Planning Department, San Francisco Better Streets Plan: Street Types, <https://www.sfbetterstreets.org/design-guidelines/street-types/>, accessed April 6, 2018. Residential and commercial throughways have high levels of fast-moving traffic and frequent transit service with adjacent residential and commercial uses, respectively.

<sup>16</sup> San Francisco General Plan, Table 4: Transit Preferential Street Classification System, [http://www.sf-planning.org/ftp/General\\_Plan/I4\\_Transportation.htm#TRA\\_MTR](http://www.sf-planning.org/ftp/General_Plan/I4_Transportation.htm#TRA_MTR), accessed April 9, 2018. Secondary transit streets connect two or more major destinations.

<sup>17</sup> San Francisco Department of Public Health, Vision Zero High Injury Network: 2017, <http://sfgov.maps.arcgis.com/apps/webappviewer/index.html?id=fa37f1274b4446f1bddd7bdf9e708ff>, accessed April 9, 2018.

considered a residential throughway and consists of two travel lanes (one eastbound and one westbound), two parallel parking lanes (one on each side) and two bicycle routes (eastbound and westbound); it has not been identified as a high injury corridor on the Vision Zero High Injury Network

The following San Francisco Municipal Transportation Agency (Muni) transit lines operate within one-quarter mile of the project site: 8-Bayshore, 8AX-Bayshore A Express, 8BX-Bayshore B Express, 9-San Bruno, 9R-San Bruno Rapid, 14X-Mission Express, 23-Monterey, 24-Divisadero and 44-O'Shaughnessy. The closest transit stops, located at the Bayshore Boulevard/Augusta Street and Silver Avenue/Charter Oak Avenue intersections, are within two blocks of the project site.

### ***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, generate more automobile travel compared to development located in urban areas, where a higher density, mix of land uses, and travel options other than private vehicles are available.

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

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

trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and the summarizing of tour VMT to each location would over-estimate VMT.<sup>18,19</sup> For residential development, existing regional daily VMT per capita is 17.2.

San Francisco 2040 cumulative conditions were projected using a SF-CHAMP model run, applying the same methodology as outlined above for existing conditions, but also incorporated residential and job growth estimates and reasonably foreseeable transportation investments through 2040. For residential development, the projected 2040 regional daily VMT per capita is 16.1. Table 4, Daily Vehicle Miles Traveled, summarizes existing and cumulative VMT for the region and for the transportation analysis zone (TAZ) in which the project site is located, TAZ 408.

**Table 4: Average Daily Vehicle Miles Traveled**

Land Use	Existing				Cumulative 2040			
	Bay Area Regional Average	Bay Area Regional Average minus 15% (threshold)	TAZ 408	Percent +/- threshold	Bay Area Regional Average	Bay Area Regional Average minus 15% (threshold)	TAZ 408	Percent +/- threshold
Residential	17.2	14.6	9.3	-36	16.1	13.7	8.3	-39

## VEHICLE MILES TRAVELED IMPACT ANALYSIS METHODOLOGY

### *Vehicle Miles Traveled Analysis*

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

#### *Residential Projects*

For residential projects, a project would generate substantial additional VMT if it exceeds regional VMT per capita minus 15 percent.<sup>20</sup> As documented in the California State Office of Planning and Research (OPR) *Revised Proposal on Updates to the CEQA Guidelines on Evaluating*

<sup>18</sup> To state another way: a tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, for example, a coffee shop on the way to work and a restaurant on the way back home, both retail locations would be allotted the total tour VMT. A trip-based approach allows us to apportion all retail-related VMT to retail sites without double-counting.

<sup>19</sup> San Francisco Planning Department, Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A, March 3, 2016

<sup>20</sup> Office of Planning and Research, Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, <http://www.opr.ca.gov/ceqa/updates/sb-743/>, accessed December 19, 2017. See page III: 20.

*Transportation Impacts in CEQA* (“Proposed Transportation Impact Guidelines”), a 15 percent threshold below existing development is “both reasonably ambitious and generally achievable.”<sup>21</sup> This approach is consistent with CEQA section 21099 and the thresholds of significance for other land uses recommended in OPR’s Proposed Transportation Impact Guidelines.

OPR’s Proposed Transportation Impact Guidelines provides screening criteria to identify types, characteristics, or locations of land use projects that would not exceed these VMT thresholds of significance. OPR recommends that if a project or land use proposed as part of the project meets any of the screening criteria, then VMT impacts are presumed to be less than significant for that land use and a detailed VMT analysis is not required. The screening criteria applicable to the proposed project and their implementation in San Francisco are described below:

- Map-Based Screening for residential, office and retail Projects. OPR recommends mapping areas where VMT falls below the applicable land use threshold. Accordingly, the Transportation Authority has developed maps depicting existing VMT levels in San Francisco for residential, office and retail land uses based on the SF-CHAMP 2012 base-year model run. The Planning Department uses these maps and associated data to determine whether a proposed project is located in an area of the City that is below the applicable VMT threshold(s).
- Proximity to Transit Stations. OPR recommends that residential, retail, and office projects, as well projects that are a mix of these uses, proposed within one half-mile of an existing major transit stop (as defined by CEQA section 21064.3) or an existing stop along a high-quality transit corridor (as defined by CEQA 21155) would not result in a substantial increase in VMT. However, this presumption would not apply if the project 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 authorization; or (3) be inconsistent with the applicable Sustainable Communities Strategy.<sup>22</sup>
- Small Projects Screening Criterion. OPR recommends that lead agencies may generally assume that a project would not have significant VMT impacts if the project would either: (1) generate fewer trips than the level for studying consistency with the applicable congestion management program or (2) where the applicable congestion management program does not provide such a level, fewer than 100 vehicle trips per day. The Transportation Authority’s Congestion Management Program, December 2015, does not include a trip threshold for studying consistency. Therefore, the Planning Department uses a screening criterion of 100 vehicle trips per day, whereby a project that would

---

<sup>21</sup> *Ibid.*

<sup>22</sup> A project is considered to be inconsistent with the Sustainable Communities Strategy if development is located outside of areas contemplated for development in the Sustainable Communities Strategy.

generate vehicle trips equal to or below this threshold would not generate a substantial increase in VMT.

### **Induced Automobile Travel Analysis**

Transportation projects may substantially induce additional automobile travel. The following identifies thresholds of significance and screening criteria used to determine if transportation projects would result in significant impacts by inducing substantial additional automobile travel.

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

OPR's Proposed Transportation Impact Guidelines includes a list of transportation project types that would not likely lead to a substantial or measureable increase in VMT. If a project fits within the general types of projects (including combinations of types) described in the Transportation Impact Guidelines, then it is presumed that VMT impacts would be less than significant and a detailed VMT analysis is not required. The following types of transportation projects included in the Transportation Impact Guidelines are applicable to the subject project's proposed addition of a new 10-foot-wide curb cut at the terminus of Charter Oak Avenue to provide access to the project site:

- Other Minor Transportation Projects:
  - Adoption, removal, or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs)

### **TRAVEL DEMAND**

Localized trip generation for the proposed project was calculated using a trip-based analysis and information included in the 2002 *Transportation Impact Analysis Guidelines for Environmental Review* (SF Guidelines) developed by the San Francisco Planning Department.<sup>23</sup> The proposed project would generate an estimated 40 person trips (inbound and outbound) on a weekday daily basis, consisting of 25 person trips by auto (21 vehicle trips accounting for vehicle occupancy data for this census tract), 13 transit trips, one walk trip and one trip by other modes, which include bicycle, taxi, and motorcycle trips. During the p.m. peak hour, the proposed project would generate an estimated seven daily person trips, consisting of four person trips by auto (four vehicle trips accounting for vehicle occupancy data), two transit trips, zero walk trips and zero trips by other modes.

---

<sup>23</sup> San Francisco Planning Department, *Transportation Calculations for 159 & 161 Charter Oak Avenue*, March 28, 2018.

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

***Vehicle Miles Traveled Analysis***

As shown in Table 4, the existing daily VMT per capita is 9.3 for TAZ 408, which is 36 percent below the applicable screening criterion (existing regional VMT per capita minus 15 percent) of 14.6. Therefore, the proposed project would meet the Map-Based Screening criteria for residential uses. The project site also meets the Proximity to Transit Stations and Small Projects screening criteria because it is located within one half-mile of numerous major transit stops, has a floor area ratio of 1.0 (i.e., greater than 0.75), provides parking that is equal to the minimum required by the Planning Code, is located within a Priority Development Area (Bayview/Hunters Point) and would generate 21 daily vehicle trips (i.e., less than 100 daily vehicle trips).<sup>24</sup> Since the proposed project would meet one or more of the screening criteria, it would not result in a substantial increase in VMT and as a result, its impacts on VMT would be less than significant.

***Induced Automobile Travel Analysis***

A project would have a significant effect on the environment if it would substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network. OPR's Proposed Transportation Impact Guidelines includes a list of transportation project types that would not likely lead to a substantial or measureable increase in VMT. If a project fits within the general types of projects (including combinations of types), then it is presumed that VMT impacts would be less than significant and a detailed VMT analysis is not required.

The proposed project is not a transportation project. However, the proposed project would include features that would alter the transportation network. Specifically, the proposed project would add a 10-foot-wide curb cut at the terminus of Charter Oak Avenue that would provide access to the new residential buildings via a new approximately 103-foot-long by 20-foot-wide common driveway. However, this minor alteration to the transportation network fits within the general types of projects that would not substantially induce automobile travel.<sup>25</sup> Thus, the proposed project would not result in a significant impact with respect to induced automobile travel.

**Impact TR-2: The proposed project would not substantially increase traffic hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. (Less than Significant)**

The project does not propose any design features that would substantially increase traffic-related hazards (e.g., a new sharp curve or dangerous intersections) or include any incompatible uses, as

---

<sup>24</sup> San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis for 159 & 161 Charter Oak Avenue*, March 28, 2018.

<sup>25</sup> *Ibid.*

discussed under Topic E.1, Land Use and Land Use Planning. The proposed project would add a new 10-foot-wide curb cut at the terminus of Charter Oak Avenue to provide access to four new residential units within an existing residential community. The new curb cut would not substantially increase traffic-related hazards due to the low volume of vehicle activity on the Charter Oak Avenue cul-de-sac as well as the existence of compatible residential uses in the vicinity. Therefore, traffic hazard impacts due to a design feature or incompatible uses from the proposed project would be less than significant.

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

Emergency vehicle access is currently provided and would continue to be provided along Charter Oak Avenue, which fronts the project site. The four proposed residential units would be accessible via a proposed 10-foot-wide curb cut and 20-foot-wide mutual driveway easement. The San Francisco Fire Department conducted a preliminary review of the proposed project and determined that the proposed driveway easement would provide acceptable fire access so long as (1) the access easement is recorded with the City of San Francisco as a third party and conveyed in perpetuity and (2) the proposed project complies with section 503 (Fire Apparatus Access Roads) of the San Francisco Fire Code and Administrative Bulletin 5.01.<sup>26</sup> Specifically, the proposed project must ensure that the fire apparatus access road (i.e., Charter Oak Avenue) shall extend to within 150 feet of all portions of the proposed development and all portions of the exterior walls of the first story of each of the four new buildings as measured by an approved route around the exterior of each building.

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

***Transit Facilities***

The project site is well served by public transit. Within one-quarter mile of the project site, Muni operates the following local transit lines: 8-Bayshore, 8AX-Bayshore A Express, 8BX-Bayshore B Express, 9-San Bruno, 9R-San Bruno Rapid, 14X-Mission Express, 23-Monterey, 24-Divisadero and 44-O'Shaughnessy. The proposed project would generate 13 daily transit trips, including two during the p.m. peak hour. These transit trips would be distributed among multiple transit lines serving the project vicinity. Given the availability of nearby transit, the addition of two p.m. peak-hour transit trips would be accommodated by existing capacity. For these reasons, the proposed project would not result in unacceptable levels of transit service or cause a substantial increase in delays or operating costs such that significant adverse impacts in transit service could result. Thus, the proposed project's impact on transit service would be less than significant.

---

<sup>26</sup> Jeremy Schaub, Principal Architect, Schaub Ly Architects, Inc., letter correspondence with Lt. Janice Hayes, San Francisco Fire Department (SFFD), February 28, 2017 (signed by above noted SFFD representative on March 23, 2017).

### ***Bicycle Facilities***

There are numerous bicycle routes and lanes located within one half-mile of the project site, the closest running along Bayshore Boulevard (two blocks east) and Silver Avenue (two blocks south). The proposed project would add approximately one person-trip by “other” modes to the local street network, which include trips made by bicycle. The proposed project would also provide one class 1 bicycle parking space per dwelling unit. Furthermore, implementation of the proposed project would not alter the existing street grid or result in other physical changes that would affect existing bicycle routes and lanes in the vicinity. Therefore, project-generated bicycle trips would not have a significant impact on existing bicycle facilities.

The proposed project would also generate 21 daily and four p.m. peak-hour vehicle trips. While the project would increase the amount of vehicle traffic along Charter Oak Avenue, Augusta Street and other streets in the project vicinity, the expected magnitude of this increase on any one street would not be substantial enough to result in conflicts with cyclists or affect overall bicycle circulation or the operations of bicycle facilities, and therefore, impacts would be less than significant.

### ***Pedestrian Facilities***

Trips generated by the proposed project would include walk trips to and from the residential units, plus walk trips to and from transit stops. The proposed project would generate about one daily pedestrian trip to and from the project site, which is not anticipated to occur during the peak p.m. period. To serve project-generated pedestrian traffic, the proposed project would provide a three-foot-wide concrete walkway along the site’s western boundary with a wall and fence providing separation between the site and the adjacent Caltrans right of way. In addition, the nearby sidewalks along Charter Oak Avenue and Augusta Street are approximately 10 feet wide and have available pedestrian capacity, based on a field observation.<sup>27</sup>

As previously described, there are stop signs located at nearby intersections (although many of these intersections are missing curb ramps), which facilitate pedestrian crossing. The higher traffic volume streets in the vicinity, Silver Avenue and Bayshore Boulevard, are characterized by well-marked travel lanes, bicycle routes/lanes and pedestrian crossings and include a combination of stop signs (primarily Silver Avenue) and traffic lights to control traffic flows. As a result, the existing pedestrian facilities at the site and within the project vicinity would be able to accommodate the additional project-generated pedestrian trip without becoming substantially overcrowded, unsafe or degraded. Furthermore, project-generated vehicle traffic (21 daily and 4 p.m. peak hour vehicle-trips) would be dispersed among multiple streets within the project vicinity and therefore, would not be expected to result in substantial conflicts with pedestrians on Charter Oak Avenue, Augusta Street or other streets in the project vicinity.

---

<sup>27</sup> A field observation of the project site and vicinity was conducted on January 16, 2018, between 8:00 a.m. and 9:00 a.m.

As a result, project-related impacts on pedestrian facilities and safety would be less than significant.

### ***Construction Activities***

Construction of the proposed project would last approximately 18 months. Construction staging would occur within the project site and on Charter Oak Avenue, primarily in front of the project site. Therefore, traffic lane closures are not anticipated during construction. During the construction period, there would be a flow of construction-related trucks to and from the project site, which could result in a temporary reduction in the capacities of local streets. In addition, construction activities would generate construction worker trips to and from the project site and a temporary demand for parking and public transit. However, the temporary demand for public transit would not be expected to exceed the capacity of local or regional transit service. In general, lane and sidewalk closures are subject to review and approval by San Francisco Public Works (Public Works) and the City's Transportation Advisory Staff Committee (TASC), which consists of representatives from the City's fire, police, public works and public health departments as well as the San Francisco Municipal Transportation Agency and Port of San Francisco.

Due to the temporary nature of the construction activities and required street and sidewalk coordination with City departments and agencies, the construction-related impacts on transportation and circulation would be less than significant.

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

VMT by its nature is a cumulative impact. The amount of driving induced by past, present and future projects contributes to cumulative environmental impacts associated with VMT. While no single project would be sufficient in size to prevent the region or state in meeting its VMT reduction goals, a project's individual VMT would contribute to cumulative VMT impacts. Project-level VMT and induced automobile travel screening thresholds are based on levels at which new projects are not anticipated to conflict with state and regional long-term greenhouse gas emission reduction targets and statewide VMT per capita reduction targets set for 2020.

The proposed project would not exceed the project-level thresholds for VMT and induced automobile travel (Impact TR-1). In addition, the proposed project would not exceed the project-level projected 2040 thresholds for VMT. For TAZ 408, projected 2040 daily VMT per capita is 8.3, which is 39 percent below the projected 2040 screening threshold (regional daily VMT per capita less 15 percent) of 13.7 for residential uses (Table 4).

Therefore, the proposed project in combination with past, present, and reasonably foreseeable future projects, would not result in a significant impact on cumulative regional VMT.

**Impact C-TR-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not have a cumulative impact on transportation. (Less than Significant)**

There are currently eight active development projects within the project vicinity (see Figure 2 and Table 2, section B, Project Setting) in addition to the proposed project at 159 & 161 Charter Oak Avenue. Collectively, these projects would add three (net) new dwelling units and approximately 25,400 square feet of retail space, 22,000 square feet of office space, 10,000 square feet of production, distribution and repair (PDR) space, 7,860 square feet of childcare space and 121,000 square feet of non-retail automotive services (vehicle storage for a taxi operator). These projects would increase the demand for transit within the project vicinity. However, existing transit capacity would be able to accommodate this increase in demand. Therefore, the proposed project, in combination with past, present and reasonably foreseeable cumulative projects, would have less-than-significant cumulative transit impacts.

The cumulative projects would also increase automobile traffic in the area, which could result in an increase in the potential for automobile-bicycle and automobile-pedestrian conflicts at intersections and driveways in the project vicinity. While there would be a general increase in vehicle, bicycle, and pedestrian traffic in the project vicinity, the proposed project would not create potentially hazardous conditions for bicycles or pedestrians, or otherwise interfere with bicycle or pedestrian accessibility to the project site and adjoining areas. Therefore, the proposed project, in combination with past, present and reasonably foreseeable development in the project vicinity, would have a less-than-significant cumulative impact on bicycle and pedestrian facilities and conditions.

Construction of the proposed project could overlap with construction activities associated with the cumulative development projects described in Table 2. However, the combined construction-related traffic would be temporary and localized, and therefore would not result in permanent impacts related to transportation and circulation. In addition, all construction-related temporary traffic lane closures would be coordinated with the City to minimize the impacts on local traffic. As stated above, lane and sidewalk closures are subject to review and approval by San Francisco Public Works (Public Works) and the City's Transportation Advisory Staff Committee (TASC), which consists of representatives from the City's fire, police, public works and public health departments as well as the San Francisco Municipal Transportation Agency. The cumulative addition of construction worker-related vehicle or transit trips would also not substantially affect transportation conditions, due to their temporary and limited nature. Therefore, the proposed project would have less-than-significant cumulative construction impacts.

For these reasons, the proposed project in combination with past, present, or reasonably foreseeable future projects in the project vicinity would result in less-than-significant cumulative transportation impacts.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
<b>5. NOISE -- Would the project result in:</b>					
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

**Impact NO-1: The proposed project would not result in the exposure of persons to or generation of noise levels in excess of established standards, nor would the proposed project result in a substantial permanent increase in ambient noise levels. (Less than Significant)**

Ambient noise levels in the project vicinity are typical of noise levels found in San Francisco, which are dominated by vehicular traffic (I-280 highway noise), including cars, Muni buses, and emergency vehicles. The existing traffic noise levels at the project site and along Charter Oak

Avenue, which the proposed project would front, range between 65 and 70 dBA (Ldn).<sup>28,29,30</sup> To the northwest of the project site, moving toward the I-280 highway, noise levels increase from 70 dBA (Ldn) to over 75 dBA (Ldn).

In the California Building Industry Association v. Bay Area Air Quality Management District case decided in 2015<sup>31</sup> the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing environmental conditions might impact a project's users or residents, except where the project would significantly exacerbate an existing environmental condition. Accordingly, the significance criteria above related to exposure of persons to noise levels in excess of standards in the General Plan or Noise Ordinance, exposure of persons to excessive groundborne vibration or groundborne noise levels, and people being substantially affected by existing noise levels are relevant only to the extent that a project significantly exacerbates the existing noise environment. As discussed above, the proposed project would not significantly exacerbate existing noise conditions; however, the following is provided for informational purposes.

The proposed project would construct new residential units in an existing residential community within this noise environment. The Environmental Protection Element of the San Francisco General Plan contains Land Use Compatibility Guidelines for Community Noise.<sup>32</sup> These guidelines, which are similar to state guidelines promulgated by the Governor's Office of Planning and Research, indicate maximum acceptable noise levels for various newly developed land uses. These guidelines present a range of noise levels that are considered compatible or incompatible with various land uses. For residential uses, the maximum "satisfactory, with no special noise insulation" exterior noise level is 60 dBA (Ldn); it is 70 dBA (Ldn) if "needed noise insulation features [are] included in the design." The proposed project would be subject to the following interior noise standards, which are described here for informational purposes. The California Building Standards Code (Title 24) establishes uniform noise insulation standards. The Title 24 acoustical requirement for residential structures is incorporated into section 1207 of the San Francisco Building Code and requires these structures be designed to prevent the intrusion of

---

<sup>28</sup> San Francisco General Plan, Environmental Protection Element, Map 1, Background Noise Levels – 2009, [http://generalplan.sfplanning.org/images/16.environmental/ENV\\_Map1\\_Background\\_Noise%20Levels.pdf](http://generalplan.sfplanning.org/images/16.environmental/ENV_Map1_Background_Noise%20Levels.pdf), accessed on April 10, 2018.

<sup>29</sup> The dBA, or A-weighted decibel, refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies. On this scale, the normal range of human hearing extends from about 0 dBA to about 140 dBA. A 10-dBA increase in the level of a continuous noise represents a perceived doubling of loudness.

<sup>30</sup> The DNL or Ldn is the Leq, or Energy Equivalent Level, of the A-weighted noise level over a 24-hour period with a 10 dB penalty applied to noise levels between 10:00 p.m. to 7:00 a.m. Leq is the level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time period of interest.

<sup>31</sup> California Building Industry Association v. Bay Area Air Quality Management District, 62 Cal.4th 369. Opinion Filed December 17, 2015. Case No. S213478. Available at: <http://www.courts.ca.gov/33098.htm>. Accessed July 5, 2018.

<sup>32</sup> San Francisco General Plan, Environmental Protection Element, Policy 11.1, [http://generalplan.sfplanning.org/16\\_Environmental\\_Protection.htm#ENV\\_TRA\\_11\\_1](http://generalplan.sfplanning.org/16_Environmental_Protection.htm#ENV_TRA_11_1), accessed December 20, 2017.

exterior noise so that the noise level with windows closed, attributable to exterior sources, shall not exceed 45 dBA in any habitable room. Therefore, the proposed residential use, which is already a common use in the vicinity, would be compatible with existing noise guidelines.

In addition, the proposed residential use would not generate groundborne vibration or noise that could result in a substantial permanent, temporary or periodic increase in ambient noise levels. 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 increase in the ambient noise level in the project vicinity.<sup>33</sup> The proposed project would generate approximately 21 daily vehicle trips, four of which would occur during the p.m. peak hour. The most recent traffic counts taken at Silver Avenue and Bayshore Boulevard (the closest intersection to the project site for which traffic counts have been collected) totaled 5,291 westbound and 10,451 eastbound vehicles per day. Of these, 440 westbound and 830 eastbound trips, occurred during the p.m. peak hour.<sup>34</sup> Therefore, project-generated daily vehicle trips would not cause 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.

Mechanical building equipment, such as heating, ventilation and air conditioning (HVAC) systems, as well as music- or other noise-producing devices associated with the residential uses would also create operational noise. However, these noise sources would be subject to the San Francisco Noise Ordinance (Article 29 of the Police Code). Specifically, section 2909(a) prohibits any person from producing or allowing to be produced, on residential property, a noise level in excess of five dBA above ambient noise levels at any point outside the property line. In addition, section 2909(d) establishes maximum noise levels for fixed noise sources (e.g., mechanical equipment) of 55 dBA (from 7:00 a.m. to 10:00 p.m.) and 45 dBA (from 10:00 p.m. to 7:00 a.m.) inside any sleeping or living room in any dwelling unit located on residential property to prevent sleep disturbance. The proposed project's HVAC systems as well as any noise-generating devices that may be associated with the residential uses would be required to meet these noise standards.

Given that the proposed project's vehicle trips would not cause a doubling of traffic volumes on nearby streets and that proposed mechanical equipment and other noise-generating devices would be required to comply with the Noise Ordinance, operational noise from the proposed project would not result in a noticeable increase in ambient noise levels. Therefore, the proposed project would not result in exposure of any existing noise sensitive uses (e.g., nearby residential uses, schools, etc.) to noise levels in excess of established standards or result in a substantial permanent increase in ambient noise levels.

---

<sup>33</sup> United States Department of Transportation, Federal Highway Administration, *Highway Traffic Noise: Analysis and Abatement Guidance*, December 2011, p. 9. Available online at [http://www.fhwa.dot.gov/environment/noise/regulations\\_and\\_guidance/analysis\\_and\\_abatement\\_guidance/revguidance.pdf](http://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf), accessed April 10, 2018.

<sup>34</sup> San Francisco Municipal Transportation Agency, SFMTA Traffic Count Data 1995-2015, <https://www.sfmta.com/reports/sfmta-traffic-count-data-1995-2015>, accessed April 10, 2018.

**Impact NO-2: The proposed project would not result in construction activities that could expose persons to temporary increases in noise or vibration levels substantially in excess of ambient levels. (Less than Significant)**

The construction period for the proposed project would last approximately 18 months. Construction equipment and activities would generate noise and possibly vibrations that could be considered an annoyance by occupants of nearby properties. Construction noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between noise source and affected receptor, and the presence (or absence) of barriers. Impacts would generally be limited to periods during which excavation occurs, new foundations are installed and exterior structural and facade elements are altered. Interior construction noise would be substantially reduced by exterior walls.

Construction noise is regulated by the San Francisco Noise Ordinance (Article 29 of the Police Code). The ordinance requires that noise levels from individual pieces of construction equipment, other than impact tools, not exceed 80 dBA at a distance of 100 feet from the source. For reference, Table 5 provides typical noise levels produced by various types of construction equipment that the proposed project would employ. Impact tools (e.g., jackhammers, hoe rams, impact wrenches), which typically exceed the noise ordinance limit, are not currently proposed for construction of the proposed project. However, if impact tools were to be used, they would be required to include manufacturer-recommended and City-approved mufflers for both intake and exhaust. Section 2908 of the Noise Ordinance prohibits construction work between 8:00 p.m. and 7:00 a.m., if noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special permit is authorized by the Director of the Department of Public Works or the Director of Building Inspection. The project would be required to comply with regulations set forth in the Noise Ordinance.

**Table 5: Typical Noise Levels from Proposed Project Construction Equipment**

Construction Equipment/Noise Ordinance Limit	Noise Level (dBA, Leq at 50 feet)	Noise Level (dBA, Leq at 100 feet)
San Francisco Noise Ordinance Limit	86	80
Loader	79	73
Dozer	82	76
Excavator	81	75
Grader	85	79
Dump Truck	76	70
Flatbed Truck	74	68
Concrete Truck	81	75
Forklift (gas-powered)	83	77
Generator	81	75

Compressor	78	72
Paver	77	71
Notes: The above Leq noise levels are calculated assuming a 100 percent usage factor at full load (i.e., Lmax noise level 100 percent) for the 1-hour measurement period.		

Construction of the proposed project would require excavation and removal of approximately 705 cubic yards of soil, as well as removal of the remnant foundation structures. According to a geotechnical investigation report prepared for the proposed project, the proposed new buildings would be supported by either a continuous perimeter footing or a concrete mat slab with a continuous perimeter footing; the continuous perimeter footing would extend to a depth of at least 2 feet below the lowest grade. Therefore, there would be no noise or vibration impacts associated with pile driving or other impact equipment during construction and noise impacts would be less than significant.

The nearest sensitive uses to the project site include the adjacent residences directly south and east of the site, Thurgood Marshall High School (45 Conkling Street), located approximately 500 feet northeast of the site, and Willie L. Brown Jr. Middle School (2055 Silver Avenue), located about 900 feet northeast of the project site. The adjacent residences would likely experience temporary and intermittent noise associated with construction activities as well as the passage of construction trucks to and from the project site. The schools would not likely experience any construction-related noise disturbances, given their further distance from the project site.

Older buildings, particularly masonry buildings, can be damaged by excessive vibration associated with construction activities. Construction of the proposed project would not generate excessive vibration that could damage any potential masonry buildings in the vicinity because (1) the project construction would not use impact equipment and (2) the nearest buildings to the site (the adjacent residences directly east and south of the project site)<sup>35</sup> are of either wood frame or steel frame construction.<sup>36</sup> In addition, the Department of Building Inspection is responsible for reviewing the building permit application to ensure that proposed construction activities, including shoring and underpinning, comply with all applicable procedures and requirements and would not materially impair adjacent or nearby buildings.

Therefore, project-related construction activities would not expose individuals to temporary increases in noise or vibration levels substantially greater than ambient levels.

---

<sup>35</sup> The adjacent residence to the south is approximately 0 feet from the project site; the adjacent residences to the east of the site are between 25 feet to 40 feet from the project site (i.e., their rear yards provide separation between them and the project site).

<sup>36</sup> San Francisco Planning Department, Property Information Map, Property: Assessor's Report, <http://sfplanninggis.org/pim/>, accessed November 27, 2018.

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

As described above, project-generated operational and construction noise would not substantially increase ambient noise levels within the project vicinity. Of the eight cumulative development projects described in Table 2, section B, Project Setting, the closest developments to the project site are located at 707 Bayshore Boulevard (475 feet northwest) and 50 Conkling Street (550 feet east). However, these projects involve a change of use (from a vacant warehouse to formula retail) and a rear horizontal addition to a single-family residence, respectively, and therefore, would contribute only marginally to ambient noise levels in the area, both during construction and operation. The remaining six cumulative projects are dispersed throughout the project area and are either too limited in scope and/or too distant from the project site to substantially increase ambient noise levels in the project vicinity.

In addition, the proposed project, in combination with the cumulative projects, would not result in a doubling of existing traffic volumes in the vicinity. The proposed project would add approximately 21 daily vehicle trips (four trips during the p.m. peak period). The eight cumulative development projects in the vicinity would also increase the daily number of vehicle trips, to varying degrees. However, these additional vehicle trips would be distributed along the local street network and would not combine with the 21 vehicle trips added by the proposed project to double existing traffic volumes in the vicinity. Therefore, in combination with reasonably foreseeable cumulative projects, the proposed project would not result in significant cumulative traffic noise impacts.

Moreover, the proposed project's mechanical equipment and mechanical equipment from reasonably foreseeable cumulative projects would be required to comply with the Noise Ordinance. Construction noise associated with the proposed project and cumulative development projects in the vicinity would also be subject to the Noise Ordinance and would be temporary in duration. Therefore, cumulative construction-related noise impacts would be less than significant.

For these reasons, the proposed project in combination with reasonably foreseeable projects would result in less-than-significant cumulative impacts related to noise.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
<b>6. AIR QUALITY.—Would the project:</b>					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Bay Area Air Quality Management District (air district) is the regional agency with jurisdiction over the nine-county San Francisco Bay Area Air Basin (air basin), which includes San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa counties and portions of Sonoma and Solano counties. The air district is responsible for attaining and maintaining federal and state air quality standards in the air basin, 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. On April 19, 2017, the air district adopted the 2017 Clean Air Plan, its most recent air quality plan.<sup>37</sup> 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 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

---

<sup>37</sup> Bay Area Air Quality Management District, 2017 Clean Air Plan: Spare the Air, Cool the Climate, April 2017, <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/plans-under-development>, accessed December 11, 2017.

- 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 is 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 an air quality plan.

**Criteria Air Pollutants**

In accordance with the state and federal clean air acts, air pollutant standards are identified for the following six *criteria air pollutants*: ozone, carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead. These air pollutants are termed criteria air pollutants because they are regulated by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. In general, the air basin experiences low concentrations of most pollutants when compared with federal or state standards. Specifically, the air basin is designated as either in attainment<sup>38</sup> or unclassified for most criteria air pollutants with the exception of ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>, for which it is in non-attainment with respect to either 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 would be considerable, then the project’s impact on air quality would be considered significant.<sup>39</sup> Land use projects may contribute to regional criteria air pollutants during the construction and operational phases of a project. Table 6 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.

**Table 6: Criteria Air Pollutant Significance Thresholds<sup>40</sup>**

Pollutant	Construction Thresholds		Operational Thresholds	
	Average Daily Emissions (lbs/day)		Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54		54	10
NO <sub>x</sub>	54		54	10

<sup>38</sup> “Attainment” status refers to those regions that are meeting federal and/or state standards for a specified criteria pollutant. “Non-attainment” refers to regions that do not meet federal and/or state standards for a specified criteria pollutant. “Unclassified” refers to regions where there is not enough data to determine the region’s attainment status for a specified criteria air pollutant.

<sup>39</sup> Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2017, page 2-2.

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

PM <sub>10</sub>	82 (exhaust)	82	15
PM <sub>2.5</sub>	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	

**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 nitrogen oxides (NO<sub>x</sub>). 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<sub>x</sub>, the offset emissions level is an annual average of 10 tons per year (or 54 pounds per day).<sup>41</sup> 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<sub>x</sub> emissions as a result of increases in vehicle trips, architectural coatings, 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<sub>x</sub> emissions. Due to the temporary nature of construction activities, only the average daily thresholds are applicable to construction phase emissions.

**Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>).**<sup>42</sup> The air district has not established an offset limit for PM<sub>2.5</sub>. However, the emissions limit established in the federal New Source Review<sup>43</sup> for stationary sources in nonattainment areas is an appropriate significance threshold. For PM<sub>10</sub> and PM<sub>2.5</sub>, the New Source Review emissions limits are 15 tons per year (82 pounds per day) and 10 tons per year (54 pounds per day), respectively. These emissions limits represent levels below which a source is not expected to have an impact on air quality.<sup>44</sup> Similar to the ozone precursor thresholds identified above, land use development projects typically result in particulate matter

<sup>41</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, page 17.

<sup>42</sup> PM<sub>10</sub> is often termed “coarse” particulate matter and is made of particulates that are 10 microns in diameter or smaller. PM<sub>2.5</sub>, termed “fine” particulate matter, is composed of particles that are 2.5 microns or less in diameter.

<sup>43</sup> Code of Federal Regulations (CFR), PSD (40 CFR 52.21, 40 CFR 51.166, 40 CFR 51.165 (b)) and Non-attainment NSR (40 CFR 52.24, 40 CFR 51.165, 40 CFR part 51, Appendix S)

<sup>44</sup> BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, page 16.

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;<sup>45</sup> individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.<sup>46</sup> The air district has identified a number of best management practices to control fugitive dust emissions from construction activities.<sup>47</sup> The City's Construction Dust Control Ordinance (ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust. Best management practices employed in compliance with the 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<sub>2</sub> concentrations have never exceeded the standards. The primary source of CO emissions from development projects is vehicle traffic. Construction-related SO<sub>2</sub> 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<sub>2</sub>. Furthermore, the air district has demonstrated, based on modeling, that to exceed the California ambient air quality standard of 9.0 parts per million (8-hour average) or 20.0 parts per million (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<sub>2</sub> emissions that could result from development projects in the project vicinity, the development projects would not result in a cumulatively considerable net increase in CO or SO<sub>2</sub> 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 to human health, including carcinogenic effects. Human health effects of TACs include birth defects, neurological damage, cancer, and mortality. There are hundreds of different types of TACs with varying

---

<sup>45</sup> Western Regional Air Partnership. 2006. *WRAP Fugitive Dust Handbook*. September 7, 2006. This document is available online at [http://www.wrapair.org/forums/dejff/dh/content/FDHandbook\\_Rev\\_06.pdf](http://www.wrapair.org/forums/dejff/dh/content/FDHandbook_Rev_06.pdf), accessed December 18, 2017.

<sup>46</sup> Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2017, page D-47.

<sup>47</sup> *Ibid.*

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.<sup>48</sup>

Air pollution does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Land uses such as residences, schools, children's day care centers, hospitals, and nursing and convalescent homes are considered to be the most sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress or, as in the case of residential receptors, their exposure time is greater than that for other land uses. Therefore, these groups are referred to as sensitive receptors. Exposure assessment guidance typically assumes that residences would be exposed to air pollution 24 hours per day, seven days a week, for 30 years.<sup>49</sup> 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<sub>2.5</sub>) are strongly associated with mortality, respiratory diseases, and lung development impacts in children, and other endpoints such as hospitalization for cardiopulmonary disease.<sup>50</sup> In addition to PM<sub>2.5</sub>, diesel particulate matter (DPM) is also of concern. The California Air Resources Board (California air board) identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans.<sup>51</sup> 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" (APEZ), were identified based on health-protective criteria that consider estimated cancer

---

<sup>48</sup> In general, a health risk assessment is required if the air district concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. In such a case, the project sponsor would be subject to a health risk assessment for the source in question. Generally, the assessment would evaluate chronic, long-term effects by estimating the increased risk of cancer as a result of exposure to one or more TACs.

<sup>49</sup> California Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Risk Assessment Guidelines, February 2015, 4-44 and 8-6, <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>, accessed March 8, 2018.

<sup>50</sup> San Francisco Department of Public Health, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008.

<sup>51</sup> California Air Resources Board (ARB), *Fact Sheet: The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines*, October 1998.

risk, exposure to fine particulate matter, proximity to freeways, and locations with particularly vulnerable populations. The project site is located within APEZ. Each of the APEZ criteria is discussed below.

**Excess Cancer Risk.** The Air Pollutant Exposure Zone includes areas where modeled cancer risk exceeds 100 incidents per million persons exposed. This criterion is based on United States Environmental Protection Agency (EPA) guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.<sup>52</sup> As described by the air district, the EPA considers a cancer risk of 100 per million to be within the “acceptable” range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants rulemaking,<sup>53</sup> 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.<sup>54</sup>

**Fine Particulate Matter.** EPA staff’s 2011 review of the federal PM<sub>2.5</sub> standard concluded that the then current federal annual PM<sub>2.5</sub> standard of 15 µg/m<sup>3</sup> (micrograms per cubic meter) should be revised to a level within the range of 13 to 11 µg/m<sup>3</sup>, with evidence strongly supporting a standard within the range of 12 to 11 µg/m<sup>3</sup>.<sup>55</sup> The Air Pollutant Exposure Zone for San Francisco is based on the health protective PM<sub>2.5</sub> standard of 11 µg/m<sup>3</sup>, as supported by the EPA’s assessment, although lowered to 10 µg/m<sup>3</sup> to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

**Proximity to Freeways.** According to the 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

---

<sup>52</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, 67.

<sup>53</sup> 54 Federal Register 38044, September 14, 1989.

<sup>54</sup> Bay Area Air Quality Management District, 2017 Clean Air Plan: Spare the Air, Cool the Climate, April 2017, <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/plans-under-development>, accessed December 11, 2017.

<sup>55</sup> U.S. EPA, Policy Assessment for the Review of the Particulate Matter National Ambient Air Quality Standards, April 2011, <https://www3.epa.gov/ttn/naaqs/standards/pm/data/20110419pmpafinal.pdf>, accessed December 11, 2017.

freeway are at an increased health risk from air pollution,<sup>56</sup> 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<sub>2.5</sub> concentrations in excess of 9 µg/m<sup>3</sup>.<sup>57</sup>

The above citywide health risk modeling was also used as the basis for approving amendments to the San Francisco Building and Health codes, referred to as the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments, or Health Code, article 38 (ordinance 224-14, effective December 8, 2014). 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 within two categories: short-term impacts from construction activities and long-term impacts from project operation. The following addresses potential construction-related air quality impacts resulting from the proposed project.

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

Construction activities (short-term) typically result in emissions of ozone precursors and PM in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and PM result primarily from the combustion of fuel from on-road and off-road vehicles. However, ROG's are also emitted as a result of activities involving painting, application of other types of architectural coatings, or asphalt paving. The proposed project would construct four new single-family residences on two vacant lots. During the project's approximately 18-

---

<sup>56</sup> California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005, <http://www.arb.ca.gov/ch/landuse.htm>, accessed December 11, 2017.

<sup>57</sup> 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.

month construction period, construction activities would have the potential to result in emissions of ozone precursors and PM, as discussed below.

### **Fugitive Dust**

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. Although there are federal standards for air pollutants and implementation of state and regional air quality control plans, air pollutants continue to have impacts on human health throughout the country. California has found that particulate matter exposure can cause health effects at lower levels than national standards. The current health burden of particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. According to the California Air Resources Board, reducing PM<sub>2.5</sub> concentrations to state and federal standards of 12 µg/m<sup>3</sup> in the San Francisco Bay Area would prevent between 200 and 1,300 premature deaths.<sup>58</sup>

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

In response, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes generally referred to as the Construction Dust Control Ordinance (Ordinance No. 176-08, effective August 29, 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 on-site workers, minimize public nuisance complaints, and avoid orders to stop work by the Department of Building Inspection (DBI).

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

In compliance with the Construction Dust Control Ordinance, the project sponsor and the contractor responsible for project site construction activities would be required to use the following practices to control construction dust at the site (or other practices deemed acceptable by the DBI director that would result in equivalent dust control). All active construction areas

---

<sup>58</sup> California Air Resources Board, *Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California*, Staff Report, Table 4c, October 24, 2008.

shall be watered sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress, at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 square feet of excavated material, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10-millimeter (0.01-inch) polyethylene plastic (or equivalent) tarp, braced down, or contained using other equivalent soil stabilization techniques. San Francisco ordinance 175-91 restricts the use of potable water for soil compaction and dust control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of San Francisco, unless permission is obtained from the San Francisco Public Utilities Commission. Non-potable water must be used for soil compaction and dust control activities during project construction and demolition. The San Francisco Public Utilities Commission 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 the proposed project's 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. The air district has developed screening criteria to assist lead agencies in determining whether short-term construction-related air pollutant emissions require further analysis to assess whether the project may exceed the criteria air pollutant significance thresholds shown in Table 6.<sup>59,60</sup> If a proposed project meets the screening criteria, then construction of the project would result in less-than-significant criteria air pollutant impacts. A project that exceeds the screening criteria may require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds.

The proposed project would construct four new single-family homes, which is well below the construction screening criteria (114 dwelling units) for a single-family land use. In addition, the proposed project would excavate and remove less than 10,000 cubic yards of soil and therefore

---

<sup>59</sup> Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2017, page 3-2.

<sup>60</sup> The screening criteria are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration; a greenfield site refers to agricultural or forest land or an undeveloped site earmarked for commercial, residential, or industrial projects. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could result in lower emissions.

would not require extensive material transport via haul truck.<sup>61</sup> Thus, quantification of construction-related criteria air pollutant emissions is not required, and the proposed project's construction activities would result in a less-than-significant criteria air pollutant impact.

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

As described above, the project site is located within the Air Pollutant Exposure Zone. Existing sensitive land uses in the project vicinity include residential and school uses. The project site is surrounded by adjacent residential uses to the east and south. The closest schools, Thurgood Marshall High School and Willie L. Brown Jr. Middle School, are located approximately 500 feet and 900 feet northeast of the project site, respectively.

Off-road equipment (which includes construction-related equipment) is a large contributor to diesel particulate matter emissions in California, although since 2007, the California air board has found the emissions to be substantially lower than previously expected.<sup>62</sup> 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 diesel particulate matter emissions in California.<sup>63</sup> For example, revised PM emission estimates for the year 2010, of which DPM is a major component of total PM, have decreased by 83 percent from previous 2010 emissions estimates for the air basin.<sup>64</sup> Approximately half of the reduction in emissions can be attributed to the economic recession and half to updated methodologies used to better assess construction emissions.<sup>65</sup>

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

---

<sup>61</sup> Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2017, page 3-5.

<sup>62</sup> Air Resources Board (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*, pages 1 and 13 (Figure 4), October 2010.

<sup>63</sup> 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.

<sup>64</sup> ARB, In-Use Off-Road Equipment, 2011 Inventory Model, [http://www.arb.ca.gov/msei/categories.htm#inuse\\_or\\_category](http://www.arb.ca.gov/msei/categories.htm#inuse_or_category), accessed April 18, 2018.

<sup>65</sup> 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.

implementing the federal Tier 4 standards, NO<sub>x</sub> and PM emissions will be reduced by more than 90 percent.<sup>66</sup>

In addition, construction activities do not lend themselves to analysis of long-term health risks because of their temporary and variable nature. As explained in the air district's CEQA 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."<sup>67</sup>

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

The proposed project would require construction activities during the approximate 18-month construction period that would result in short-term emissions of DPM and other TACs. The project site is located in an area that already experiences poor air quality; therefore, project construction activities would generate additional air pollution that would affect nearby sensitive receptors and result in a significant impact. Implementation of Mitigation Measure M-AQ-2, Construction Air Quality, would reduce the magnitude of this impact to a less-than-significant level. While emission reductions from limiting idling, educating workers and the public and properly maintaining equipment are difficult to quantify, other measures, specifically the requirement for equipment with Tier 2 engines and Level 3 Verified Diesel Emission Control Strategy (VDECS) can reduce construction emissions by 89 to 94 percent compared to equipment with engines meeting no emission standards and without a VDECS.<sup>68</sup> Emissions reductions from

---

<sup>66</sup> USEPA, *Clean Air Nonroad Diesel Rule: Fact Sheet*, May 2004.

<sup>67</sup> Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2017, page 8-7.

<sup>68</sup> PM emissions benefits are estimated by comparing off-road PM emission standards for Tier 2 with Tier 1 and 0. Tier 0 off-road engines do not have PM emission standards, but the United States Environmental Protection Agency's *Exhaust and Crankcase Emissions Factors for Nonroad Engine Modeling – Compression Ignition* has estimated Tier 0 engines between 50 hp and 100 hp to have a PM emission factor of 0.72 g/hp-hr and greater than 100 hp to have a PM emission factor of 0.40 g/hp-hr. Therefore, requiring off-road equipment to have at least a Tier 2 engine would result in between a 25 percent and 63 percent reduction in PM emissions, as compared to off-road equipment with Tier 0 or

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 the project sponsor's Contractor shall comply with the following:

A. *Engine Requirements.*

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

B. *Waivers.*

1. The Planning Department's Environmental Review Officer or designee (ERO) may waive the alternative source of power requirement of Subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit documentation that the equipment used for onsite power generation meets the requirements of Subsection (A)(1).

---

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).

---

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**

<b>Compliance Alternative</b>	<b>Engine Emission Standard</b>	<b>Emissions Control</b>
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 project sponsor shall ensure that all applicable requirements of the Plan have been incorporated into the contract specifications. The Plan shall include a certification statement that the Contractor agrees to comply fully with the Plan.
  3. The Contractor shall make the Plan available to the public for review on-site during working hours. The Contractor shall post at the construction site a legible and

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

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

### ***Operational Air Quality Impacts***

Land use projects result in the emission of criteria air pollutants and TACs, primarily from an increase in motor vehicle trips, but also from the combustion of natural gas, landscape maintenance activities and the use of consumer products and architectural coatings. The following discussion 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 has developed screening criteria to determine whether a project requires an analysis of project-generated criteria air pollutants.<sup>69</sup> If all of the screening criteria are met by a proposed project, then the lead agency or applicant is not required to perform a detailed air quality assessment.

The proposed project would construct four new single-family dwellings, which together would generate approximately 21 daily vehicle trips. The proposed project would fall below the operational criteria air pollutant screening size for single-family land uses (325 dwelling units) identified in the air district's *CEQA Air Quality Guidelines*. Thus, quantification of project-generated criteria air pollutant emissions is not required, and the proposed project would not exceed any of the significance thresholds for criteria air pollutants, and would result in less than significant impact with respect to criteria air pollutants.

---

<sup>69</sup> Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2017, page 3-2.

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

As discussed above, the project site is located within an Air Pollutant Exposure Zone and surrounded by adjacent residential uses to the east and south. The closest schools, Thurgood Marshall High School and Willie L. Brown Jr. Middle School, are located approximately 500 feet and 900 feet northeast of the project site, respectively.

**Sources of Toxic Air Contaminants**

The proposed four new single-family residences would not require the use of back-up diesel generators or generate substantial on-site quantities of TACs from other sources. However, the proposed project would increase the number of daily vehicle trips in the project vicinity, which would increase TAC emissions in the area. However, the air district considers roads with less than 10,000 vehicles per day “minor, low-impact” sources that do not pose a significant health impact, even in combination with other nearby sources, and recommends that these sources be excluded from the environmental analysis.

As stated previously, the most recent traffic counts taken at Silver Avenue and Bayshore Boulevard (the closest intersection to the project site for which traffic counts have been collected) totaled 5,291 westbound and 10,451 eastbound vehicles per day, which exceeds the 10,000 vehicle per day threshold described above. However, the 21 additional project-related vehicle trips would be distributed among the local roadway network, not concentrated at the Silver Avenue/Bayshore Boulevard intersection. In addition, the 21 new vehicle trips would be insufficiently small, relative to existing traffic volumes in the vicinity, to contribute a substantial amount of toxic air contaminant emissions that could affect nearby sensitive receptors. Therefore an assessment of project-generated toxic air contaminants resulting from vehicle trips is not required.

**Siting Sensitive Land Uses**

The proposed project would site residential uses, which are considered sensitive land uses for the purpose of air quality evaluation, in an Air Pollutant Exposure Zone. Therefore, the proposed project would be subject to article 38 (Enhanced Ventilation Required for Urban Infill Sensitive Use Developments) of the San Francisco Health Code. Article 38 requires that the project sponsor submit an Enhanced Ventilation Proposal for approval by the Department of Public Health that achieves protection from PM<sub>2.5</sub> (fine particulate matter) equivalent to that associated with a Minimum Efficiency Reporting Value (MERV) 13 filtration. The Department of Building Inspection will not issue a building permit without written notification from the Director of Public Health that the applicant has an approved Enhanced Ventilation Proposal.

In compliance with article 38, the project sponsor has submitted an initial application to the Department of Public Health.<sup>70</sup> The regulations and procedures set forth by article 38 would reduce exposure of sensitive receptors to substantial pollutant concentrations.

**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, 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 plan, this analysis considers whether the project would: (1) support the primary goals of the plan, (2) include applicable control measures from the plan, and (3) avoid disrupting or hindering implementation of control measures identified in the plan.

The primary goals of the plan are to: (1) Protect air quality and health at the regional and local scale; (2) eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and (3) protect the climate by reducing greenhouse gas emissions. To meet the primary goals, the plan recommends 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 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 plan includes 85 control measures aimed at reducing air pollution in the air basin.

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

The compact development of the proposed project and high availability of viable transportation options ensure that visitors can bicycle, walk, and ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the project would avoid substantial growth in automobile trips and vehicle miles traveled. The proposed project's anticipated 21 net new 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. Transportation control measures that are identified in the 2017 Clean Air

---

<sup>70</sup> San Francisco Department of Public Health, *Application for Article 38 Compliance Assessment: 159-161 Charter Oak Avenue*, August 26, 2016.

Plan are implemented by the San Francisco General Plan and the San Francisco 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 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 the 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 four residential units, four off-street vehicle parking spaces (the minimum Planning Code requirement for an RH-1 zoning district) and four class 1 bicycle parking spaces to a dense, walkable urban area near a concentration of regional and local transit service. Furthermore, the proposed project 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 conflict with or obstruct implementation of the 2017 Clean Air Plan, and therefore, would have a less than significant impact.

**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. A field observation indicates that the project site is not substantially affected by sources of odors.<sup>71</sup> Additionally, the proposed project includes residential uses, which would not create substantial sources of new, objectionable odors. Therefore, odor impacts would be less than significant.

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

As discussed above, regional air pollution is by its nature largely a cumulative impact. The San Francisco Bay Area air basin, as governed by the air district, composes the geographic context for an evaluation of cumulative air quality impacts. Emissions from past, present, and future projects

---

<sup>71</sup> Field observation on January 17, 2018, between 8:15 a.m. and 9:15 a.m.

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.<sup>72</sup> The project-level thresholds for criteria air pollutants are based on levels below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project’s construction and operational emissions (Impacts AQ-1 and AQ-3, respectively) would not exceed the project-level thresholds for criteria air pollutants, the proposed project would not 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 proposed project would add new sources of TACs (e.g., construction-related new vehicle trips) to an area already adversely affected by air quality, resulting in a considerable contribution to cumulative health risk impacts on nearby sensitive receptors. This would constitute a significant cumulative impact. However, the proposed project would be required to implement **Mitigation Measure M-AQ-2, Construction Air Quality**, which could reduce construction period emissions by as much as 94 percent and would thereby reduce the project’s contribution to cumulative air quality impacts to a less-than-significant level. Furthermore, compliance with article 38 of the San Francisco Health Code would ensure that new sensitive receptors are not substantially affected by existing or proposed sources of toxic air contaminants.

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

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

<sup>72</sup> Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2017.

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 (BAAQMD) has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines sections 15064.4 and 15183.5, which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA Guidelines section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. Accordingly, San Francisco has prepared *Strategies to Address Greenhouse Gas Emissions*,<sup>73</sup> which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's qualified GHG reduction strategy in compliance with the CEQA guidelines. These GHG reduction actions have resulted in a 23.3 percent reduction in GHG emissions in 2012 compared to 1990 levels,<sup>74</sup> exceeding the year 2020 reduction goals outlined in the BAAQMD's *Bay Area 2010 Clean Air Plan*, Executive Order (EO) S-3-05, and Assembly Bill (AB) 32 (also known as the Global Warming Solutions Act).<sup>75</sup>

Given that the City' has met the State and region's 2020 GHG reduction targets and San Francisco's GHG reduction goals are consistent with, or more aggressive than, the long-term goals established under EO S-3-05,<sup>76</sup> EO B-30-15,<sup>77,78</sup> and Senate Bill (SB) 32<sup>79,80</sup> the City's GHG

---

<sup>73</sup> San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, 2010, <http://sf-planning.org/greenhouse-gas-reduction-strategies>, accessed March 12, 2018.

<sup>74</sup> ICF International, *Technical Review of the 2012 Community-wide GHG Inventory for the City and County of San Francisco*, January 21, 2015, [http://sfenvironment.org/sites/default/files/fliers/files/icf\\_verificationmemo\\_2012sfcommunityinventory\\_2015-01-21.pdf](http://sfenvironment.org/sites/default/files/fliers/files/icf_verificationmemo_2012sfcommunityinventory_2015-01-21.pdf), accessed March 12, 2018.

<sup>75</sup> Executive Order S-3-05, Assembly Bill 32, and the *Bay Area 2010 Clean Air Plan* set a target of reducing GHG emissions to below 1990 levels by year 2020.

<sup>76</sup> Office of the Governor, Executive Order S-3-05, June 1, 2005, <http://www.pcl.org/projects/2008symposium/proceedings/Coatsworth12.pdf>, accessed March 12, 2018. Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million metric tons of carbon dioxide equivalents (MTCO<sub>2</sub>E)); by 2020, reduce emissions to 1990 levels (approximately 427 million MTCO<sub>2</sub>E); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million MTCO<sub>2</sub>E). Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

<sup>77</sup> Office of the Governor, *Executive Order B-30-15*, April 29, 2015, <https://www.gov.ca.gov/news.php?id=18938>, accessed March 12, 2018. Executive Order B-30-15, issued on April 29, 2015, sets forth a target of reducing GHG emissions to 40 percent below 1990 levels by 2030 (estimated at 2.9 million MTCO<sub>2</sub>E).

<sup>78</sup> San Francisco's GHG reduction goals are codified in Section 902 of the Environment Code and include: (i) by 2008, determine City GHG emissions for year 1990; (ii) by 2017, reduce GHG emissions by 25 percent below 1990 levels; (iii) by 2025, reduce GHG emissions by 40 percent below 1990 levels; and by 2050, reduce GHG emissions by 80 percent below 1990 levels.

<sup>79</sup> Senate Bill 32 amends California Health and Safety Code Division 25.5 (also known as the California Global Warming Solutions Act of 2006) by adding Section 38566, which directs that statewide greenhouse gas emissions to be reduced by 40 percent below 1990 levels by 2030.

reduction goals are consistent with EO S-3-05, EO B-30-15, AB 32, SB 32 and the *Bay Area 2010 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 the analysis is in a cumulative context, this section does not include an individual project-specific impact statement.

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

Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during construction and operational phases. Direct 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 site activity by introducing four new single-family residences to the project site. Therefore, the proposed project would contribute to annual long-term increases in GHGs related to increased vehicle trips (mobile sources) and residential operations (increases in energy use, water use, wastewater treatment, and solid waste disposal). Construction activities would also result in temporary increases in GHG emissions.

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

Compliance with the City's 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.

---

<sup>80</sup> Senate Bill 32 was paired with Assembly Bill 197, which would modify the structure of the State Air Resources Board; institute requirements for the disclosure of greenhouse gas emissions criteria pollutants, and toxic air contaminants; and establish requirements for the review and adoption of rules, regulations, and measures for the reduction of greenhouse gas emissions.

---

The proposed project would be required to comply with the energy efficiency requirements of the City's Green Building Code, Building Code, Stormwater Management Ordinance, Water Conservation and Irrigation ordinances and Environment Code, which would promote energy and water efficiency, thereby reducing the proposed project's energy-related GHG emissions.<sup>81</sup>

The proposed project's waste-related emissions would be reduced through compliance with the City's Recycling and Composting Ordinance, Construction and Demolition Debris Recovery Ordinance and Construction Site Runoff Pollution Prevention for New Construction Ordinance. These regulations reduce the amount of materials sent to a landfill, thus reducing GHGs emitted by landfill operations. These regulations also promote reuse of materials, conserving their embodied energy<sup>82</sup> and reducing the energy required to produce new materials.

Compliance with other regulations, including those requiring low-emitting finishes, would reduce volatile organic compounds (VOCs).<sup>83</sup> Thus, the proposed project has been determined to be consistent with San Francisco's GHG reduction strategy.<sup>84</sup>

The project sponsor is required to comply with these regulations, which have proven effective as San Francisco's GHG emissions have measurably decreased when compared to 1990 emissions levels, demonstrating that the City has met and exceeded EO S-3-05, AB 32, and the *Bay Area 2010 Clean Air Plan* GHG reduction goals for the year 2020. Other existing regulations, such as those implemented through AB 32, will continue to reduce a proposed project's contribution to climate change. In addition, San Francisco's local GHG reduction targets are consistent with the long-term GHG reduction goals of EO S-3-05, EO B-30-15, AB 32, SB 32 and the *Bay Area 2010 Clean Air Plan*. Therefore, because the proposed projects is consistent with the City's GHG reduction strategy, it is also consistent with the GHG reduction goals of EO S-3-05, EO B-30-15, AB 32, SB 32 and the *Bay Area 2010 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.

---

<sup>81</sup> Compliance with water conservation measures reduce the energy (and GHG emissions) required to convey, pump and treat water required for the project.

<sup>82</sup> Embodied energy is the total energy required for the extraction, processing, manufacture and delivery of building materials to the building site.

<sup>83</sup> While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

<sup>84</sup> San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist: 155, 157, 159 & 161 Charter Oak Avenue*, April 10, 2018.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>8. WIND AND SHADOW.—Would the project:</b>					
a) Alter wind in a manner that substantially affects public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Wind impacts are directly related to the height, orientation, design, location, and surrounding development context of a proposed project. 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 four proposed three-story, 34-foot-tall residential buildings would be approximately one story taller than the adjacent residential buildings to the east and south of the project site. Existing development in the project vicinity consists predominately of 2-story (typically, one-story-over-garage) single-family residential buildings. Therefore, the proposed 34-foot-tall buildings would have little potential to cause substantial changes to ground-level wind conditions adjacent to and near the project site. For these reasons, the proposed project would not alter wind in a manner that substantially affects public areas, and this impact would be less than significant.

**Impact WS-2: The proposed project would not create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas. (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.

The proposed project would construct four new 34-foot-tall residential buildings. Therefore section 295 does not apply to the project and any project-related shadowing of non-section-295 public and private open spaces would be considered less than significant. In addition, 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. However, 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, and this impact would be less than significant.

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

As discussed above, buildings shorter than 85 feet have little potential to cause substantial changes to ground-level wind conditions. Given that the height limits in the project vicinity are 40 feet in the immediate area surrounding the project site and 65 feet in the industrial area north (and down gradient) of the project site, none of the nearby cumulative development projects and foreseeable future developments would be tall enough to alter wind in a manner that substantially affects public areas. 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 wind impact.

In addition, the proposed project would not shadow any nearby parks or open spaces. Therefore, the proposed project would not contribute to any potential cumulative shadow impact on parks and open spaces. The sidewalks in the project vicinity are already shaded for periods of the day by the densely developed, multi-story buildings. Although implementation of the proposed project and nearby cumulative development projects would add net new shadow to the sidewalks in the project vicinity, these shadows would be transitory in nature, would not substantially affect the use of the sidewalks, and would not increase shadows above levels that are common and generally expected in a densely developed urban environment. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative shadow impact.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
<b>9. RECREATION.</b>					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact RE-1: The proposed project would not result in a substantial increase in the use of existing parks and recreational facilities, the deterioration of such facilities, include recreation facilities, or require the expansion of recreational facilities. (Less than Significant)**

There are numerous parks, open spaces and recreational facilities within one mile of the project site. These include Silver Terrace Playground (0.1 miles south), Selby and Palou Mini Park (0.3 miles northwest), Palega Recreation Center (0.4 miles southwest), Palou and Phelps Park (0.5 miles southeast) and John McLaren Park (0.9 miles southwest).

As previously stated, the proposed project would add approximately ten new residents to the project site. This increase would not be large enough to substantially increase demand for, or use of, nearby parks, open spaces or recreational facilities such that substantial physical deterioration would be expected. Nor would it require the construction of new recreational facilities or the expansion of existing facilities. In addition, project-related construction activities would occur within the boundaries of the project site, which does not include any existing recreational resources.

For these reasons, the proposed project would have a less-than-significant impact on recreational facilities and resources.

**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)**

Cumulative development in the project vicinity would result in an intensification of land uses and a cumulative increase in the 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.<sup>85</sup> 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 numerous parks and open spaces located within one mile of the project site. It is expected that these existing recreational facilities 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.

<b>Topics:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>	<b>Not Applicable</b>
<b>10. UTILITIES AND SERVICE SYSTEMS.</b>					
<b>Would the project:</b>					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or are new expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>85</sup> San Francisco Planning Department, *San Francisco General Plan, Recreation and Open Space Element*, April 2014, pp. 20-36. Available online at [http://www.sf-planning.org/ftp/General\\_Plan/Recreation\\_OpenSpace\\_Element\\_ADOPTED.pdf](http://www.sf-planning.org/ftp/General_Plan/Recreation_OpenSpace_Element_ADOPTED.pdf), accessed April 18, 2018.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is within an urban area that is served by utility service systems, including water, wastewater and storm water collection and treatment, and solid waste collection and disposal. The proposed project would add about ten new residents to the site, which would increase the demand for utilities and service systems on the site. In order to provide access to the city's utility service systems, the proposed project would extend existing sewer, water and gas lines by about 75 to 80 feet to service the project site. However, as discussed under section E.2, Population and Housing, the growth associated with the proposed project would not be in excess of growth planned for the city and the extension of the utility lines would not constitute an expansion of existing utility service systems. Rather, the extension would restore the site to its previous condition, when it contained single-family homes. Therefore, the increased demand generated by the proposed project would be accommodated by existing utility service system capacity.

**Impact UT-1: Implementation of the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, would not exceed the capacity of the wastewater treatment provider that would serve the project, and would not require the construction of new, or expansion of existing, wastewater treatment or stormwater drainage facilities. (Less than Significant)**

The project site is served by San Francisco's combined sewer system, which handles both sewage and stormwater runoff. The Southeast Water Pollution Control Plant (SEWPCP) provides wastewater and stormwater treatment and management for the east side of the city, including the project site. The proposed project would be required to extend the existing public sewer line by about 80 feet to provide the project site with access to the SEWPCP treatment and management systems. However, this extension would not constitute an expansion of existing wastewater treatment or stormwater facilities since the project site was previously occupied by seven single-family homes that were connected to the City's combined sewer system until the 1960s when they were demolished to make way for construction of the I-280 highway. Moreover, although the proposed project would add new residents to the project site, this additional population is not beyond the growth projections included in long range plans for the city's wastewater system.

Therefore, the incremental increase in the demand for wastewater management would not require construction of new wastewater treatment facilities or expansion of existing facilities.

In addition, the proposed project would incorporate water-efficient fixtures, as required by Title 24 of the California Code of Regulations, the San Francisco Building Code and the San Francisco Green Building Ordinance. Compliance with these regulations would reduce wastewater flows and the amount of potable water used for building functions. The incorporation of water-efficient fixtures into new development is also accounted for by the San Francisco Public Utilities Commission (SFPUC) in their projections of water demand (i.e., 2015 Urban Water Management Plan), because widespread adoption can lead to more efficient use of existing capacity. The proposed project would also meet the wastewater pre-treatment requirements of the SFPUC, as required by the San Francisco Industrial Waste Ordinance, in order to meet Regional Water Quality Control Board requirements.<sup>86</sup>

The approximately 8,928-square-foot project site is currently a vacant lot overgrown with weeds and bushes. The proposed project would add more than 5,000 square feet of impervious surfaces to the site, which would increase the amount of stormwater runoff entering the combined sewer system. However, the proposed project would be required to comply with the City's Stormwater Management Ordinance (adopted in 2010 and amended in 2016) and the 2016 Stormwater Management Requirements and Design Guidelines. These regulations and guidelines would require the proposed project to maintain a stormwater runoff rate and volume at or below pre-development conditions for the 1- and 2-year, 24-hour design storms.<sup>87</sup> The Stormwater Management Requirements set forth a hierarchy of best management practices to meet the stormwater runoff requirements. First priority best management practices involve reduction in stormwater runoff through approaches such as rainwater harvesting and reuse (e.g., for toilets and urinals and/or irrigation); infiltration through a rain garden, swale, trench, or basin; or through the use of permeable pavement or a green roof. Second priority best management practices include biotreatment approaches such as the use of flow-through planters or, for large sites, constructed wetlands. Third priority best management practices, only permitted under special circumstances, involve use of a filter to treat stormwater. The proposed project includes a common driveway composed of permeable paving and planters for each of the four new dwelling units.

To achieve compliance with the Stormwater Management Requirements, the proposed project would prepare a Stormwater Control Plan for review and approval by the SFPUC. The Stormwater Control Plan would also include a maintenance agreement that must be signed by the project sponsor to ensure proper care of the necessary stormwater controls. Therefore, the

---

<sup>86</sup> City and County of San Francisco, Ordinance No. 19-92, *San Francisco Municipal Code* (Public Works), Part II, Chapter X, Article 4.1 (amended), January 13, 1992.

<sup>87</sup> San Francisco Public Utilities Commission, San Francisco Stormwater Management and Design Guidelines, <http://www.sfwater.org/Modules/ShowDocument.aspx?documentID=9026>, accessed April 18, 2018.

proposed project would not substantially increase the amount of stormwater runoff to the extent that existing facilities would need to be expanded or new facilities would need to be constructed; as such, the impact to the stormwater system would be less than significant.

Overall, while the proposed project would add ten new residents to the project site and extend the existing public sewer line, thereby increasing sewage flows in the area, it would not cause collection treatment capacity of the sewer system in the city to be exceeded or necessitate the construction of new wastewater/stormwater treatment facilities or the expansion of existing facilities. Furthermore, the proposed project would not exceed the wastewater treatment requirements of the regional board and would be required to comply with the City's Stormwater Management Ordinance. For these reasons, the proposed project would not result in a significant impact related to wastewater treatment and stormwater management requirements and capacity.

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

As previously discussed, the proposed four dwelling units would add approximately ten new residents to the project site, which would increase water demand, but not in excess of amounts provided and planned for in the project area. The SFPUC provides water to both retail and wholesale customers. Approximately two-thirds of the SFPUC's water supply is delivered to wholesale customers; the remaining one-third is delivered to retail customers. Retail customers include the residents, businesses, and industries located within city limits, referred to as the in-city retail service area. Wholesale customers include other municipalities in California.

On June 14, 2016, the SFPUC adopted the 2015 Urban Water Management Plan (UWMP) for the City and County of San Francisco.<sup>88</sup> The 2015 UWMP presents water demand and supply projections through 2040, water supplies available to meet existing and future demands under a range of conditions, water shortage contingency plans, and demand management measures to reduce long-term water demand.

The 2015 UWMP estimates that current and projected water supplies will be sufficient to meet future retail demand through 2035 under normal year, single dry year and multiple dry years conditions; however, if a multiple dry year event occurs, the SFPUC would experience a shortfall of 1.1 million gallons per day (mgd) of water (1.2 per cent of demand) in 2040 for the City and County of San Francisco during the second and third year of a multiple dry year. Under a shortfall scenario, the SFPUC would respond by implementing water use and supply reductions via a drought response plan and a corresponding retail water shortage allocation plan.

---

<sup>88</sup> San Francisco Public Utilities Commission, 2015 Urban Water Management Plan for the City and County of San Francisco, June 2016, <https://sfwater.org/modules/showdocument.aspx?documentid=9300>, accessed March 14, 2018.

Retail demand projections presented in the 2015 UWMP are based on demographic data and growth forecasts prepared by the California Department of Finance, the Association of Bay Area Governments (ABAG), and the San Francisco Planning Department for the in-City retail service area. Through these projections, the 2015 UWMP has accounted for the increase in water demand that would be generated by the proposed project. 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. Furthermore, the proposed project would be required to comply with Article 21 (Restriction of Use of Potable Water for Soil Compaction and Dust Control Activities) of the San Francisco Public Works Code, which restricts the use of potable water during demolition and construction activities.

Since the additional project-generated water demand could be accommodated by existing and planned water supplies anticipated under the 2015 UWMP, the proposed project would not result in a substantial increase in water use, would be served from existing water supply entitlements and resources and would not require the expansion or construction of new water supply or treatment facilities. Therefore, this impact would be less than significant.

**Impact UT-3: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and would follow all applicable statutes and regulations related to solid waste. (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 set a goal of 75 percent solid waste diversion by 2010, which it exceeded at 80 percent diversion, and currently has a goal of 100 percent solid waste diversion or "zero waste" to landfill or incineration by 2020. San Francisco Ordinance No. 27-06 requires mixed construction and demolition debris to be transported by a Registered Transporter and taken 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. San Francisco's Mandatory Recycling and Composting Ordinance No. 100-09 requires all properties and persons in the City to separate their recyclables, compostables, and landfill trash.

The proposed project would incrementally increase total City waste generation; however, the proposed project would be required to comply with San Francisco Ordinance Nos. 27-06 and 100-09. Due to the existing and anticipated increase of solid waste recycling in the City and the agreement with Recology for diversion of solid waste to the Hay Road Landfill, any increase in solid waste resulting from the proposed project would be accommodated by the existing landfill. Thus, the proposed project would have less-than-significant impacts related to solid waste.

**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)**

The proposed project would not substantially impact utility supply or service. In addition, nearby development, such as the projects listed in Table 2 and depicted in Figure 2, would not contribute to a cumulatively substantial effect on the utility infrastructure of the Bayview neighborhood. Furthermore, existing service management plans address anticipated growth in the surrounding area and the region. Therefore, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, have been accounted for in these plans and would not result in a cumulative utilities and service systems impact.

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

For a discussion of impacts on parks, refer to section E.9, Recreation.

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

The project site receives fire protection and emergency medical services from the San Francisco Fire Department’s Fire Station No. 42 at 2430 San Bruno Avenue, approximately one quarter-mile southwest of the project site.<sup>89</sup> The project site receives police protection services from the San Francisco Police Department’s Bayview Station at 201 Williams Avenue, approximately one

<sup>89</sup> San Francisco Fire Department, Fire Station Locations, <http://sf-fire.org/FIRE-STATION-LOCATIONS#divisions>, accessed March 13, 2018.

half-mile southeast of the project site.<sup>90</sup> Implementation of the proposed project would add about ten new residents to the project site, which would increase the demand for fire protection, emergency medical, and police protection services. However, this increase in demand would not be substantial 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. Moreover, the proximity of the project site to Fire Station No. 42 and the Bayview Police Station would help minimize Fire Department and Police Department response times should incidents occur at the project site.

Access to the proposed new residential buildings would be provided via a new 10-foot-wide curb cut on Charter Oak Avenue leading to a 20-foot-wide common driveway. As previously noted, the San Francisco Fire Department conducted a preliminary review of the proposed project and determined that the proposed driveway easement would provide acceptable fire access so long as the access easement is recorded with the City of San Francisco as a third party and conveyed in perpetuity and the proposed project complies with section 503 (Fire Apparatus Access Roads) of the San Francisco Fire Code and Administrative Bulletin 5.01.<sup>91</sup> In particular, the proposed project must ensure that the fire apparatus access road (i.e., Charter Oak Avenue) shall extend to within 150 feet of all portions of the proposed development and all portions of the exterior walls of the first story of each of the four new buildings as measured by an approved route around the exterior of each building. The proposed project would generally comply with these requirements. As previously discussed, the proposed project would also install a new fire hydrant in the Charter Oak Avenue right of way adjacent to the Caltrans property and extend the existing public water lines to the hydrant.

The proposed project would also incrementally increase the demand for other governmental services and facilities, such as libraries. The San Francisco Public Library operates 27 branches throughout San Francisco;<sup>92</sup> the Portola, Bayview/Linda Brooks-Burton and Bernal Heights branches, located within 0.75 miles of the project site, would accommodate the minor increase in demand for library services generated by the proposed project. Therefore, impacts on police, fire, and other governmental services would be less than significant.

**Impact PS-2: The proposed project would not substantially increase the population of school-aged children and would not require new or physically altered school facilities. (Less than Significant)**

---

<sup>90</sup> San Francisco Police Department, Police District Maps, <http://sanfranciscopolice.org/police-district-maps?page=796>, accessed March 13, 2018.

<sup>91</sup> Jeremy Schaub, Principal Architect, Schaub Ly Architects, Inc., letter correspondence with Lt. Janice Hayes, San Francisco Fire Department (SFFD), February 28, 2017 (signed by above noted SFFD representative on March 23, 2017).

<sup>92</sup> San Francisco Public Library, Libraries, <https://sfpl.org/index.php?pg=000000501>, accessed March 13, 2018.

Implementation of the proposed project would result in the construction of four new four-bedroom dwelling units, which would increase the local population by about ten residents, some of which may be children. This minor amount would not substantially increase the population of school-aged children in the project vicinity. In addition, there are eleven public schools (preschool, elementary, middle school and high school) located within one mile of the project site; therefore, construction of new, or alteration of existing, school facilities would not be required to accommodate this level of increase. For these reasons, the impact would be less than significant.

**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)**

Cumulative development in the project vicinity would result in an intensification of land uses and a cumulative increase in the demand for fire protection, police protection, school services, and other public services. The Fire Department, the Police Department, the San Francisco Unified School District, and other City agencies have accounted for such growth in providing public services to the residents of San Francisco. In addition, some of the nearby cumulative development projects would be subject to development impact fees, which serve to offset the effects of new development on public services, infrastructure and facilities. 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 public services.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>12. BIOLOGICAL RESOURCES:—</b>					
<b>Would the project:</b>					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located within an adopted Habitat Conservation Plan, a Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plans. The project site is not located within a federally protected wetland, as defined by section 404 of the Clean Water Act, and does not contain riparian habitat or other sensitive natural communities. Therefore, topics 12b, 12c, and 12f 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 special-status species. (Less than Significant)**

The project site and surrounding area are in an urban environment with high levels of human activity. The project site and adjacent Caltrans right of way, though currently vacant, previously contained seven single-family homes. Adjacent sites to the northeast, east and south are currently developed with residential units. The I-280 and I-101 highways are located approximately 50 feet northwest and 450 feet west of the project site, respectively. Therefore, any pre-existing special-status species have been previously extirpated from the area and only common bird species are likely to nest in the vicinity. In addition, due to the aforementioned urban characteristics of the location, the project site does not provide habitat for any rare or endangered plant or wildlife species. Therefore, the proposed project would have a less-than-significant impact on special-status species.

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

San Francisco is within the Pacific Flyway, a major north-south route of travel for migratory birds along the western portion of the Americas. Nesting birds, their nests, and eggs are fully protected by the California Fish and Game Code (sections 3503, 3503.5) and the federal Migratory Bird Treaty Act (MBTA). For the purposes of CEQA, a project that has the potential to substantially reduce the habitat, restrict the range, or cause a population of a native bird species to drop below self-sustaining levels could be considered a potentially significant biological resource impact requiring mitigation.<sup>93</sup> The proposed project would remove the weeds and shrubs that currently occupy the site and remove or trim three Monterey Pine trees from the adjacent Caltrans right of way landscape area. Since the existing trees are few (i.e., insufficient in number to provide a habitat for native bird species) and located in an inhospitable environment (within 90 feet of the I-280 highway on-ramp), the impact of the proposed project on nesting birds would be less than significant.

The location, height, and material of buildings, particularly transparent or reflective glass, may present risks for birds as they travel along their migratory paths. The City has adopted guidelines to address this issue and provided regulations for bird-safe design within San Francisco. Planning Code, section 139, Standards for Bird-Safe Buildings, establishes building design standards to reduce avian mortality rates associated with bird strikes.<sup>94</sup> The project site is not located in an Urban Bird Refuge, so the standards concerning location-related hazards are not applicable to the proposed project.<sup>95</sup> The proposed project would comply, as necessary, with the building feature-related hazard standards of section 139 by using bird-safe glazing treatment on 100 percent of any building feature-related hazard.

Overall, the proposed project would be subject to and would be required comply with City-adopted regulations for bird-safe buildings and federal and State migratory bird regulations. For these reasons, the proposed project would not interfere with the movement of any native resident or wildlife species or with established native resident or migratory wildlife corridors. Therefore, the proposed project would result in a less-than-significant impact on migratory species movement.

**Impact BI-3: The proposed project would not conflict with the City's local tree ordinance. (Less than Significant)**

---

<sup>93</sup> California Fish and Game Code Section 3503; Section 681, Title 14, California Code of Regulations.

<sup>94</sup> San Francisco Planning Department, *Standards for Bird-Safe Buildings*, July 14, 2001.

<sup>95</sup> San Francisco Planning Department, Urban Bird Refuge Map, [http://maps.sfplanning.org/Urban\\_Bird\\_Refuge\\_Poster.pdf](http://maps.sfplanning.org/Urban_Bird_Refuge_Poster.pdf), accessed March 13, 2018.

The City's Urban Forestry Ordinance, Public Works Code, sections 801 *et seq.*, requires a permit from Public Works to remove any protected trees. Protected trees include landmark trees, significant trees, or street trees located on private or public property anywhere within the territorial limits of the City and County of San Francisco.

The proposed project would remove weeds and shrubs from the project site and may remove three Monterey Pine trees from the adjacent Caltrans right of way landscape area. Removal of the three trees would require approval of an encroachment permit from Caltrans. Therefore, the proposed project would not conflict with the City's local tree ordinance and impacts would be less than significant.

**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)**

The project vicinity does not currently support any candidate, sensitive, or special-status species, any riparian habitat, or any other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. As with the proposed project, nearby cumulative development projects would also be subject to the Migratory Bird Treaty Act, which protects special-status bird species; the California Fish and Game Code; and the bird-safe building and urban forestry ordinances. As with the proposed project, compliance with these ordinances would reduce the effects of development projects to less-than-significant levels.

The proposed project would not modify any natural habitat and would have no impact on any candidate, sensitive, or special-status species, any riparian habitat, or other sensitive natural community; and/or would not conflict with any local policy or ordinance protecting biological resources or an approved conservation plan. For these reasons, the proposed project would not have the potential to combine with past, present, and reasonably foreseeable future projects in the project vicinity to result in a significant cumulative impact related to biological resources. Therefore, cumulative impacts to biological resources would be less than significant.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
<b>13. GEOLOGY AND SOILS.—</b>					
<b>Would the project:</b>					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Change substantially the topography or any unique geologic or physical features of the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project would connect to the combined sewer system, which is the wastewater conveyance system for San Francisco, and would not use septic tanks or other on-site land

disposal systems for sanitary sewage. Therefore, topic 13e is not applicable to the proposed project.

CEQA does not require lead agencies to consider how existing hazards or conditions might impact a project's users or residents, except for specified projects or where the project would significantly exacerbate an existing environmental hazard.<sup>96</sup> Accordingly, hazards resulting from a project that places development in an existing or future seismic hazard area or an area with unstable soils are not considered impacts under CEQA unless the project would significantly exacerbate the seismic hazard or unstable soil conditions. Thus, the analysis below evaluates whether the proposed project would exacerbate future seismic hazards or unstable soils at the project site and result in a substantial risk of loss, injury, or death. The impact is considered significant if the proposed project would exacerbate existing or future seismic hazards or unstable soils by increasing the severity of these hazards that would occur or be present without the project.

This section describes the geology, soils, and seismicity characteristics of the project area as they relate to the proposed project. Responses in this section rely on the information and findings provided in a geotechnical investigation that was conducted for the project site and proposed project.<sup>97</sup> The geotechnical investigation included a surface site reconnaissance; drilling, inspection and logging of four exploratory borings (extended to a maximum depth of 7.5 feet due to refusal); recovery of selected soil samples from the borings for laboratory testing; soil engineering analysis of the data gathered during the investigation; and preparation of a report summarizing findings and providing conclusions and recommendations. The findings and recommendations presented in the geotechnical report are discussed below.

The test boring results indicate that the site is underlain by brown sandy clay with some sandstone rock fragment to a depth of at least 7.5 feet below ground surface (the depth of refusal of all four test borings). The sandy clay/sandstone fragment soil was determined to be generally moist hard and of low plasticity (i.e., a plasticity index of 11.1 percent). Ground water was not encountered in any of the test borings (i.e., not above a depth of 7.5 feet below grade), but fluctuate seasonally and annually; however, groundwater is not anticipated to reach a depth below ground surface that would create a concern for foundation design or performance.

Given the soil conditions at the project site, the report recommends that each of the proposed new buildings be supported by a continuous perimeter footing that extends to a minimum depth of 24 inches below the lowest grade and is at least 18 inches in width with interior footings. The footing must be reinforced with a minimum of four #4 reinforcing bars, two near the top and two

---

<sup>96</sup> *California Building Industry Association v. Bay Area Air Quality Management District*, December 17, 2015, Case No. S213478, <http://www.courts.ca.gov>, accessed March 19, 2018.

<sup>97</sup> Frank Lee and Associates, *Soil and Foundation Investigation: Proposed four Three-Story Residential Buildings, 155, 157, 159 & 161 Charter Oak Avenue*, January 8, 2018.

near the bottom of the footing. Alternately, a concrete mat slab with a perimeter continuous footing (to control moisture migration) could be used to support each building.

**Impact GE-1: The proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides, and would not be located on unstable soil that could result in lateral spreading, subsidence, liquefaction, or collapse. (Less than Significant)**

### **Fault Rupture**

There are no known active faults intersecting the project site and the site is not within an Earthquake Fault Special Zone. Therefore, the potential of surface rupture occurring at the site is very low. As such, the proposed project would not exacerbate the potential for surface rupture and therefore, would have no impact on fault ruptures.

### **Strong Seismic Ground Shaking**

The project site is located approximately 6.9 miles northeast of the San Andreas Fault. According to the U.S. Geological Survey, the overall probability of a magnitude 6.7 or greater earthquake to occur in the San Francisco Bay Region during the next thirty years is 63 percent. Therefore, it is possible that a strong to very strong earthquake would affect the proposed project during its lifetime. The severity of the event would depend on a number of conditions including distance to the epicenter, depth of movement, length of shaking, and the properties of underlying materials. However, the proposed project would be required to comply with the California Building Code (state building code, California Code of Regulations, Title 24) and the San Francisco Building Code, which ensure the safety of all new construction in the State and City, respectively. Therefore, the proposed project would not have the potential to exacerbate seismic related ground shaking, and as a result, would have no impact on strong seismic ground shaking.

### **Liquefaction and Lateral Spreading**

Liquefaction and lateral spreading of soils can occur when ground shaking causes saturated soils to lose strength due to an increase in pore pressure. According to the California Geological Survey (CGS), the project site is not within a designated liquefaction hazard zone.<sup>98</sup> Nonetheless, the proposed project is required to conform to the San Francisco Building Code, which ensures the safety of all new construction in the City.

In particular, Chapter 18 of state building code, Soils and Foundations, provides the parameters for geotechnical investigations and structural considerations in the selection, design and

---

<sup>98</sup> California Geological Survey, *State of California Seismic Hazard Zones, City and County of San Francisco, (map scale 1:24,000)*, November 17, 2000.

installation of foundation systems to support the loads from the structure above. Section 1803 sets forth the basis and scope of geotechnical investigations conducted. Section 1804 specifies considerations for excavation, grading and fill to protect adjacent structures and prevent destabilization of slopes due to erosion and/or drainage. In particular, section 1804.1, Excavation near foundations, requires that adjacent foundations be protected against a reduction in lateral support as a result of project excavation. This is typically accomplished by underpinning or protecting said adjacent foundations from detrimental lateral or vertical movement, or both. Section 1807 specifies requirements for foundation walls, retaining walls, and embedded posts and poles to ensure stability against overturning, sliding, and excessive pressure, and water lift including seismic considerations. Sections 1808 (foundations) and 1809 (shallow foundations) specify requirements for foundation systems such that the allowable bearing capacity of the soil is not exceeded and differential settlement is minimized based on the most unfavorable loads specified in Chapter 16, Structural, for the structure's seismic design category and soil classification at the project site.

The Department of Building Inspection (DBI) will review the project-specific geotechnical report during its review of the building permit for the project. In addition, DBI may require additional site specific soils report(s) through the building permit application process, as needed. The DBI requirement for a geotechnical report and review of the building permit application pursuant to DBI's implementation of the Building Code, local implementing procedures, and state laws, regulations and guidelines would ensure that the proposed project would not exacerbate the potential for seismic-related ground failure. Therefore, impacts would be less than significant.

### **Landslides**

According to the California Geological Survey, the project site is not within a designated earthquake-induced landslide hazard zone.<sup>99</sup> Nonetheless, the proposed project would be required to comply with the California Building Code and the San Francisco Building Code, which would ensure that the proposed project would not exacerbate the potential for landslide hazards. Therefore, impacts would be less than significant.

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

The project site was previously terraced to accommodate the seven residential buildings that formerly occupied the site. Therefore, its topography is relatively flat with an average front-to-rear slope of about 6 percent. However, the northern limit (the apex of the triangular-shaped site) slopes steeply downward to the north by about 20 percent. The proposed project would require excavation of an 8,470-square-foot area to a maximum depth of 6 feet below ground surface and

---

<sup>99</sup> *Ibid.*

the removal of approximately 705 cubic yards of soil. Therefore, the site could be affected by windborne and waterborne soil erosion.

However, the proposed project would be required to comply with the Construction Site Runoff Ordinance, which was adopted by the City in 2013. The San Francisco Public Utilities Commission (SFPUC) currently manages the Construction Site Runoff Control Program, which ensures that all construction sites implement Best Management Practices (BMPs) to control construction site runoff.<sup>100</sup> The program also requires that projects disturbing 5,000 square feet or more of ground surface submit an Erosion and Sediment Control Plan (ESCP) prior to commencing construction related activities. In addition, the proposed project includes construction of a three-foot-tall curb (with a four-foot-tall fence) along the proposed new walkway in order to prevent runoff from entering the adjacent Caltrans right of way landscape area.

For these reasons, the impacts of the proposed project, as they relate to substantial soil erosion and the loss of topsoil would be less than significant.

**Impact GE-3: The proposed project site would not be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project. (Less than Significant)**

As discussed above, the topography of the project site is relatively flat (terraced) except for the northern limit (the apex of the triangular-shaped site), which slopes steeply downward to the north by about 20 per cent. Immediately east of the project site (a developed residential neighborhood) the terrain is generally flat, whereas north, west and southwest of the site (below the I-280 highway), the terrain drops steeply downward (by approximately 85 percent near the western edge of the adjacent Caltrans parcel).

As discussed above, the project site is not within a designated earthquake-induced landslide hazard zone. However, the proposed project would be required to comply with the California Building Code and San Francisco Building Code. Adherence to these requirements would ensure that the project sponsor adequately addresses any potential impacts related to unstable soils as part of the design-level geotechnical investigation prepared for the proposed project. Therefore, any potential impacts related to unstable soils would be less than significant.

**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. As previously noted, the expansion potential of the project site soil, as measured by its plasticity

---

<sup>100</sup> San Francisco Public Utilities Commission, 2017, Construction Site Runoff Control Program, <http://sfwater.org/index.aspx?page=235>, accessed March 19, 2018.

index, is low (11.1 percent). Nonetheless, the San Francisco Building Code would require an analysis of the project site's potential for soil expansion impacts and, if applicable, implementation of measures to address them as part of the design-level geotechnical investigation prepared for the proposed project. Therefore, potential impacts related to expansive soils would be less than significant.

**Impact GE-5: The proposed project would not substantially change the topography or any unique geologic or physical features of the site. (Less than Significant)**

The project site is relatively flat (terraced) and previously contained seven single-family homes. In addition, there are no unique geologic or physical features at the project site. Therefore, the proposed construction of four new single-family homes would have a less-than-significant impact on the general topography or any unique geologic or physical features of the site.

**Impact GE-6: The proposed project would not directly or indirectly destroy a unique paleontological resource or site. (Less than Significant)**

Paleontological resources include fossilized remains or traces of mammals, plants, and invertebrates, as well as their imprints. 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 proposed project would require excavation of an 8,470-square-foot area to a maximum depth of 6 feet below ground surface and the removal of approximately 705 cubic yards of soil. The proposed new buildings would be supported by either a continuous perimeter footing extending at least 24 inches below the lowest grade or a concrete mat slab with a continuous perimeter footing. Therefore, ground disturbing activities would be confined to the sandy clay/sandstone rock fragment soil underlying the site. Sandy clay/sandstone rock is considered to have low potential to contain significant fossils or paleontological resources.<sup>101</sup> Accordingly impacts to paleontological resources during ground-disturbing activities would be less than significant.

**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)**

Geology and soils impacts are generally site-specific and localized. Past, present, and foreseeable cumulative projects could require various levels of excavation or cut-and-fill, which could affect local geologic conditions. As noted above, the San Francisco Building Code regulates

---

<sup>101</sup> California Academy of Sciences Invertebrate, Zoology, and Geology Fossil Collection Database, <http://researcharchive.calacademy.org/research/izgfossil/index.asp?xAction=ShowForm&PageStyle=Single&PageSize=0&OrderBy=AccessionNo&County=san+francisco&RecStyle=Full> , accessed June 6, 2018.

construction in the City and County of San Francisco, and all development projects would be required to comply with its requirements to ensure maximum feasible seismic safety and minimize geologic impacts. Site-specific mitigation measures would also be implemented, as site conditions warrant, to reduce any potential impacts from unstable soils, ground shaking, liquefaction, or lateral spreading. The cumulative development projects located within an approximate quarter-mile radius of the project site (refer to Table 2 and Figure 2, section B, Project Setting) would be subject to the same seismic safety standards and design review procedures applicable to the proposed project. Compliance with the seismic safety standards and design review procedures would ensure that the effects from nearby cumulative projects would not be significant. Therefore, the proposed project would not combine with cumulative development projects to create or contribute to a cumulative impact related to geology and soils and cumulative impacts would be less than significant.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>14. HYDROLOGY AND WATER QUALITY.—</b>					
<b>Would the project:</b>					
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located within a 100-year Flood Hazard Zone,<sup>102</sup> a dam failure area,<sup>103</sup> or a tsunami hazard area.<sup>104</sup> No mudslide hazards exist on the proposed project site because it is not located close enough to any landslide-prone areas.<sup>105</sup> A seiche is an oscillation of a waterbody, such as a bay, that may cause local flooding. A seiche could occur in the San Francisco Bay due to seismic or atmospheric activity. However, the proposed project site is more than 1.5 miles from San Francisco Bay, and thus, would not be subject to a seiche. Therefore, topics 14g, 14h, 14i, and 14j are not applicable to the proposed project.

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

<sup>102</sup> San Francisco Public Utilities Commission, 100-Year Storm Flood Risk Map, <https://sfgov.maps.arcgis.com/apps/webappviewer/index.html?id=eb10e6e5e05e4bce983be68cf81e5e5a>, accessed on November 27, 2018.

<sup>103</sup> San Francisco Planning Department, San Francisco General Plan, Community Safety Element, Map 6, [http://generalplan.sfplanning.org/Community\\_Safety\\_Element\\_2012.pdf](http://generalplan.sfplanning.org/Community_Safety_Element_2012.pdf), accessed November 20, 2018.

<sup>104</sup> *Ibid*, Map 5.

<sup>105</sup> *Ibid*, Map 4.

The project site is located within an area of the city served by a combined stormwater and sewer system. Stormwater and wastewater from the site would continue to be discharged to an underground piping network, which conveys the waters to the Southeast Water Pollution Control Plant (SEWPCP) for treatment. The City currently holds a National Pollutant Discharge Elimination System (NPDES) Permit (regional board Order No. R2-2013-0029) that covers the SEWPCP, the North Point Wet Weather Facility, and all of the Bayside wet-weather facilities, including combined sewer discharge (CSD) structures located along the bayside waterfront from Marina Green to Candlestick Park. Captured wastewater and stormwater flows in the combined sewer system are directed first to the SEWPCP and North Point Wet Weather Facility for primary or secondary treatment and disinfection. Flows exceeding the capacity of these facilities are diverted to CSDs constructed throughout the city and receive the equivalent of primary treatment prior to discharge into San Francisco Bay.

The proposed project would be required to comply with Article 4.2 of the San Francisco Public Works Code, sections 146 (Construction Site Runoff Control) and 147 (Stormwater Management). The purpose of the City's construction site runoff control program is to protect water quality by controlling the discharge of sediment or other pollutants from construction sites and preventing erosion and sedimentation due to construction activities. 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.

As described in section E.13, Geology and Soils, the proposed project would be required to implement Best Management Practices (BMPs) to control construction site runoff. As detailed in section E.10, Utilities and Service Systems, the proposed project would be required to maintain a stormwater runoff rate and volume at or below pre-development conditions for the 1- and 2-year, 24-hour design storms. In addition, the proposed project would be required to comply with the Maher Ordinance (Article 22A of the San Francisco Health Code), which requires further site management and reporting requirements for potential hazardous soils (see impact HZ-2 for a discussion of the Maher Ordinance). Therefore, the proposed project would not substantially degrade water quality and water quality standards or waste discharge requirements would not be violated. Thus, the proposed project would have a less than significant impact on water quality.

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

The project site is located within the boundaries of the South San Francisco Groundwater Basin.<sup>106</sup> This groundwater basin is not currently used as a water supply, nor are there plans for it to be used as a future water supply.<sup>107</sup>

As discussed in section E.13, Geology and Soils, test borings extended to depths of 7.5 feet below ground surface did not encounter any groundwater. Although groundwater levels fluctuate annually and seasonally, the proposed project would not likely require construction dewatering since it would employ a shallow foundation and excavate to a maximum depth of 6 feet below grade. However, in the unlikely scenario that construction dewatering is required, the shallow groundwater aquifer could experience a temporary impact. If construction dewatering is required, the proposed project would be required to obtain a Batch Wastewater Discharge Permit (BWDP) from the SFPUC prior to any dewatering activities. In addition, as previously noted, the proposed project would be subject to the Maher Ordinance, which would ensure that extracted water during construction dewatering meets the water quality standards for discharge to the combined sewer system. The BWDP would contain appropriate discharge standards and may also require the installation of meters to measure the volume of discharge. These measures would ensure protection of water quality during construction of the proposed project. Furthermore, as previously stated, the underlying South San Francisco Groundwater Basin is not used for potable water supply. Moreover, as described under Topic 10, Utilities and Service Systems, the 2015 Urban Water Management Plan indicates that there will be sufficient water to meet the demand of existing and future customers during normal, single-dry, and multiple-dry years through the year 2040.

The formerly developed project site is currently overgrown with weeds and shrubs. Therefore, the proposed project would increase the amount of impervious surface at the site. However, as detailed in section E.10, Utilities and Service Systems, the proposed project would be required to implement a set of best management practices (including design features) to maintain a stormwater runoff rate and volume at or below pre-development conditions for the 1- and 2-year, 24-hour design storms. These features would facilitate the infiltration of surface water into the ground. Therefore, the proposed project would not cause a substantial deficit in aquifer volume or a substantial lowering of the groundwater table.

For these reasons, the proposed project would not substantially deplete groundwater resources or substantially interfere with groundwater recharge. Thus, the impacts to groundwater from development of the proposed project would be less than significant.

---

<sup>106</sup> State of California Department of Water Resources, DWR Mapping Tool, <https://sgma.water.ca.gov/webgis/index.jsp?appid=gasmaster&rz=true>, accessed October 15, 2018.

<sup>107</sup> Torrey, Irina P., Bureau Manager, Bureau of Environmental Management, San Francisco Public Utilities Commission (SFPUC), letter correspondence with Jennifer McKellar, Environmental Planner, San Francisco Planning Department, August 24, 2018.

**Impact HY-3: The proposed project would not result in alterations to the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on-site or off-site, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site. (Less than Significant)**

The project site does not contain any streams or water courses. Therefore, the proposed project would not alter the course of a stream or river. The proposed project would increase the amount of impervious surface at the site; however, as previously described (section E.10, Utilities and Service Systems), the proposed project would be required to implement a set of best management practices (including design features) in order to maintain a stormwater runoff rate and volume at or below pre-development conditions for the 1- and 2-year, 24-hour design storms. The proposed project already includes design features that facilitate drainage and prevent surface runoff: a driveway with permeable paving; a three-foot-tall curb along the proposed walkway to prevent runoff from entering the Caltrans right of way; a six-inch-tall curb with channel drain along the southern edge of the proposed driveway to prevent runoff from entering the residential property to the south of the site; and two catch basins located on opposite sides of the driveway entrance. Construction activities would have the potential to result in erosion and transportation of soil particles off site through excavation and grading activities. However, as described in section E.13, Geology and Soils, the proposed project would be required to implement Best Management Practices (BMPs) to control construction site runoff.

Therefore, the proposed project would not alter existing drainage patterns to the extent that substantial erosion or siltation (on site or off site) would occur or the rate or amount of surface runoff would substantially increase resulting in flooding (on site or off site). As such, impacts related to alterations of existing drainage patterns would be less than significant.

**Impact HY-4: The proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (Less than Significant)**

During construction and operation of the proposed project, all wastewater and stormwater runoff from the project site would be treated at the Southeast Water Pollution Control Plant. As noted above under Impact HY-1, treatment would be provided pursuant to the effluent discharge standards contained in the City's NPDES permit for the plant. In addition, during construction and operation, the proposed project would be required to comply with all local wastewater discharge, stormwater runoff, and water quality requirements. Compliance with these requirements would ensure that the proposed project would not 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.

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

The proposed project would result in no impact with respect to 100-year flood zones, failure of dams or levees, and/or seiche, tsunami, or mudflow hazards. Therefore, the project would not have the potential to contribute to cumulative impacts related to these topics. As previously described, the proposed project would result in less-than-significant impacts related to water quality, groundwater levels, alteration of drainage patterns, and the capacity of the drainage infrastructure. Since the proposed project and all future projects within San Francisco would be required to comply with the existing water quality, dewatering and drainage control requirements described above, cumulative contributions to erosion, siltation and water pollution in the site vicinity would not be substantial and peak stormwater drainage rates and volumes resulting from design storms would gradually decrease over time with the implementation of new, conforming development projects. In addition, San Francisco’s limited current use of groundwater would preclude any significant adverse cumulative effects to groundwater levels. Furthermore, according to the 2015 Urban Water Management Plan, there will be sufficient water supplies to meet the demand of existing and future projects through the year 2040.

Therefore, the proposed project would not combine with cumulative development projects to create or contribute to a significant cumulative impact related to hydrology and water quality, and thus, cumulative impacts would be less than significant.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>15. HAZARDS AND HAZARDOUS MATERIALS.—</b>					
<b>Would the project:</b>					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Topics:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>	<b>Not Applicable</b>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

To assess potential adverse environmental effects related to past and present activities at the project site, a *phase I environmental site assessment* (phase I ESA) was prepared.<sup>108</sup> The results are summarized below, as applicable, for each topic.

**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 would merge and subdivide two vacant lots into four new lots with a shared driveway and construct four, three-story, approximately 34-foot-tall, single-family

---

<sup>108</sup> Pangea Environmental Services, Inc., *Phase I Environmental Site Assessment Report: 159-161 Charter Oak Avenue, San Francisco, California, 94124*, December 21, 2016.

residential units. Construction of the proposed project would include excavation of an 8470-square-foot area to a maximum depth of 6 feet below ground surface and the removal of about 705 cubic yards of soil.

As described under section E.13, Geology and Soils, the project site is underlain by brown sandy clay with some sandstone rock fragment to a depth of at least 7.5 feet below ground surface. In addition, the project site is located within 50 feet and 450 feet, respectively, of the I-280 and I-101 highways. As a result, the site soil may contain shallow lead and metal concentrations. Therefore, project-related excavation and foundation work could result in the generation of hazardous soil materials requiring transport off-site. However, as discussed in more detail under Impact HZ-2 below, the project sponsor and its contractor would be required to comply with the Maher Ordinance, which would ensure that proper site testing and handling and removal of any hazardous materials would be carried out in accordance with state and federal laws. In addition, the transport of hazardous materials is also regulated by the California Highway Patrol and the California Department of Transportation. Therefore, due to existing regulations requiring the proper disposal of hazardous materials, construction-related transport and disposal of hazardous materials would not result in a significant impact on the environment.

Once constructed, the proposed project would likely result in the use of common types of hazardous materials associated with residential uses, such as cleaning products, disinfectants, and solvents. These products are typically labeled to inform users of their potential risks and to instruct them in appropriate handling and disposal procedures. However, most of these materials are consumed through use, resulting in relatively little waste. For these reasons, hazardous materials used during project operation would not pose any substantial public health or safety hazards resulting from hazardous materials. In addition, transportation of hazardous materials would be regulated by the California Highway Patrol and the California Department of Transportation. Therefore, potential impacts related to the routine use, transport, and disposal of hazardous materials associated with the operation of the proposed project would be less than significant.

**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 is located in a Maher zone, which is an area that the San Francisco Health Department, as set forth in San Francisco Building Code section 106A.3.2.4, has identified as likely containing hazardous substances in the soil or groundwater. The proposed project would require excavation to a maximum depth of 6 feet below ground surface and the removal of about 705 cubic yards of soil. Therefore, before the project may obtain a building permit, it must comply with the requirements of article 22A of the San Francisco Health Code, which the San Francisco Department of Public Health (the health department) administers. Under article 22A (commonly called “the Maher program”), the project sponsor must retain the services of a qualified

professional to prepare a site history report (commonly referred to as a phase I ESA). The site assessment must determine whether hazardous substances may be present on the site at levels that exceed health risk levels or other applicable standards established by California Environmental Protection Agencies, the Regional Water Quality Control Board, and the Department of Toxic Substances Control (Cal/EPA). If so, the project sponsor is required to conduct soil and/or groundwater sampling and analysis under a work plan approved by the health department.

The sampling analysis must provide an accurate assessment of hazardous substances present at the site that may be disturbed, or may cause a public health or safety hazard, given the intended use of the site. Where such analysis reveals the presence of hazardous substances that exceed Cal/EPA public health risk levels given the intended use, the project sponsor must submit a *site mitigation plan* (SMP) to the health department. The SMP must identify the measures that the project sponsor will take to assure that the intended use will not result in public health or safety hazards in excess of the acceptable public health risk levels established by Cal/EPA or other applicable regulatory standards. The SMP must also identify any soil and/or groundwater sampling and analysis that it recommends the project sponsor conduct following completion of the measures to verify that remediation is complete. If the project sponsor chooses to mitigate public health or safety hazards from hazardous substances through land use or activity restrictions, the project sponsor must record a deed restriction specifying the land use restrictions or other controls that will assure protection of public health or safety from hazardous substances remaining on the site.

To comply with various regulatory requirements, the health department will require the SMP to contain measures to mitigate potential risks to the environment and to protect construction workers, nearby residents, workers, and/or pedestrians from potential exposure to hazardous substances and underground structures during soil excavation and grading activities. The SMP must also contain procedures for initial response to unanticipated conditions such as discovery of underground storage tanks (USTs), sumps, or pipelines during excavation activities. Specified construction procedures, at a minimum, must comply with building code section 106A.3.2.6.3 and health code article 22B related to construction dust control; and San Francisco Public Works Code section 146 *et seq.* concerning construction site runoff control. Additional measures would typically include notification, field screening, and worker health and safety measures to comply with Cal/OSHA requirements. The health department would require discovered USTs to be closed pursuant to article 21 of the health code and comply with applicable provisions of chapters 6.7 and 6.75 of the California Health and Safety Code (commencing with section 25280) and its implementing regulations. The closure of any UST must also be conducted in accordance with a permit from the San Francisco Fire Department.

If remediation is required, it would typically be achieved through one of several methods that include off-haul and disposal of contaminated soils,<sup>109</sup> on-site treatment of soil or groundwater, or a vapor barrier installation. Alternatively or in addition, restriction on uses or activities at the project site may be required along with a recorded deed restriction. Compliance with health code article 22A and the related regulations identified above would ensure that project activities that disturb or release hazardous substances that may be present at the project site would not expose users of the site to unacceptable risk levels for the intended project uses.

In compliance with health code article 22A, the project sponsor has enrolled in the Maher program and submitted to the health department a phase I environmental site assessment to assess the potential for site contamination.<sup>110,111</sup> The site assessment determined that the project site contained residential units from 1914 to at least 1956, but since 1963 the site has remained undeveloped and vacant. The site assessment found no onsite or offsite *recognized environmental conditions* (RECs),<sup>112</sup> *controlled recognized environmental conditions* (CRECs),<sup>113</sup> or *historical recognized environmental conditions* (HRECs).<sup>114</sup> However, the health department will review the phase I environmental site assessment to determine any further requirements the proposed project would be subject to under the Maher program.

Ultimately, the proposed project would be required to remediate any potential soil and/or groundwater contamination in accordance with article 22A of the health code. The health department would oversee this process, and various regulations would apply to any disturbance of contaminants in soil or groundwater that would potentially be encountered during construction to assure that no unacceptable exposures to the public would occur. Thus, the proposed project would not result in a significant hazard to the public or environment from the

---

<sup>109</sup> Off-haul and disposal of contaminated materials from the project site would be in accordance with the federal Resource Conservation and Recovery Act (RCRA) and United States Department of Transportation regulations and the California Hazardous Waste Control program (California Health and Safety Code section 21000 *et seq.*)

<sup>110</sup> San Francisco Department of Public Health, *Maher Ordinance Application: 159-161 Charter Oak Avenue, San Francisco, CA*, September 22, 2016.

<sup>111</sup> Pangea Environmental Services, Inc., *Phase I Environmental Site Assessment Report: 159-161 Charter Oak Avenue, San Francisco, California, 94124*, December 21, 2016.

<sup>112</sup> Recognized Environmental Conditions are defined by ASTM E1527-13 as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment. *De minimis* conditions are not recognized environmental conditions.”

<sup>113</sup> A Controlled Recognized Environmental Conditions is defined in ASTM E1527-13 as “a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

<sup>114</sup> A Historical Recognized Environmental Condition (HREC) is defined by ASTM Standard Practice E1527-13 as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

disturbance or release of contaminated soil and/or groundwater and the proposed project would result in a less than significant impact.

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

There are two schools within a quarter-mile of the project site: Thurgood Marshall High School, located 500 feet northeast of the site; and Willie L. Brown Jr. Middle School, located approximately 900 feet northeast of the project site. As discussed under Impact HZ-1, the proposed project would include the use of common types of hazardous materials (i.e., cleaning products, disinfectants, and solvents) in quantities too small to create a significant hazard to the public or the environment. In addition, the proposed residential uses would not produce hazardous emissions and would not involve the handling of hazardous or acutely hazardous materials, substances, or waste. Therefore, project-related impacts would be less than significant.

**Impact HZ-4: The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.**

The project site is not included on a list of identified hazardous material sites compiled pursuant to Government Code 65962.5, as determined by federal and state/tribal database searches conducted as part of the project-specific phase I ESA.<sup>115</sup> In addition, according to the State Water Resources Control Board's (SWRCB) GeoTracker online database and the Department of Toxic Substances Control's (DTSC) EnviroStor online database, the project site is not associated with any hazardous materials cleanup sites. Therefore, project-related impacts would be less than significant.

**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)**

The ten new residents added to the project site by the proposed project could contribute to congestion if an emergency evacuation of the greater surrounding areas was required. However, this contribution would not be substantial.

San Francisco ensures fire safety through provisions of the Building and Fire Codes. Construction of the proposed project would conform to the provisions of the Building Code and Fire Code. Final building plans would be reviewed by the San Francisco Fire Department and the

---

<sup>115</sup> Pangea Environmental Services, Inc., *Phase I Environmental Site Assessment Report: 159-161 Charter Oak Avenue, San Francisco, California, 94124*, December 21, 2016.

Department of Building Inspection to ensure conformance with the applicable life-safety provisions, including development of an emergency procedure manual and an exit drill plan.

As previously noted, the San Francisco Fire Department conducted a preliminary review of the proposed project and determined that the proposed driveway easement would provide acceptable fire access so long as the access easement is recorded with the City of San Francisco as a third party and conveyed in perpetuity and the proposed project complies with section 503 (Fire Apparatus Access Roads) of the San Francisco Fire Code and Administrative Bulletin 5.01.<sup>116</sup> In addition, the proposed project would install a new fire hydrant in the Charter Oak Avenue right of way opposite the site-adjacent Caltrans property and extend existing water lines to supply it it.

Therefore, the proposed project would not obstruct implementation of the City’s Emergency Response Plan, and potential emergency response and fire hazard impacts would be less than significant.

**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. Nearby cumulative development projects would be subject to the same fire safety and hazardous materials cleanup ordinances and regulations 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.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>16. MINERAL AND ENERGY RESOURCES.—</b>					
<b>Would the project:</b>					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<sup>116</sup> Jeremy Schaub, Principal Architect, Schaub Ly Architects, Inc., letter correspondence with Lt. Janice Hayes, San Francisco Fire Department (SFFD), February 28, 2017 (signed by above noted SFFD representative on March 23, 2017).

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

The project site is located within Mineral Resource Zone 4 (MRZ-4) as designated by the California Division of Mines and Geology under the Surface Mining and Reclamation Act of 1975.<sup>117</sup> This designation indicates that there is insufficient information available to assign the site to any other Mineral Resource Zone and that the site contains no significant mineral deposits. Furthermore, according to the San Francisco General Plan, no significant mineral resources exist in all of San Francisco. Therefore, topics 17a and 17b are not applicable to the proposed project.

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

The proposed project would construct four, three-story, single-family residential units. The project site is located within the Bayview neighborhood where it is surrounded by existing buildings and infrastructure; therefore, the proposed project would be served by existing utilities. As described in section E.10, Utilities and Service Systems, adequate water supplies exist to serve the proposed project. In addition, the proposed project is located within a developed urban area that is served by multiple transit systems. Use of these transit systems by residents, visitors, and employees would reduce the amount of fuel expended by private automobiles. The proposed project's energy demand would be typical for a development of this scope and nature, and would comply with current state and local codes concerning energy consumption, including Title 24 of the California Code of Regulations, enforced by the Department of Building Inspection. The proposed project would also be required to comply with the City's Green Building Ordinance. Therefore, the water and energy demand associated with the proposed project would not result in a significant impact.

**Impact C-ME-1: The proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative mineral and energy impacts. (Less than Significant)**

---

<sup>117</sup> California Division of Mines and Geology, Open File Report 96-03 and Special Report 146 Parts I and II.

As described above, the entire City of San Francisco is designated as Mineral Resource Zone 4, which indicates that no known significant mineral resources exist at the project site or within the project vicinity. Therefore, the proposed project would not result in any cumulative impacts related to mineral resources.

All land use development projects in San Francisco, including those listed in Table 2 and Figure 2 of section B, Project Setting, would be required to comply with the City’s Green Building Ordinance and Title 24 of the California Code of Regulations, both of which are enforced by the Department of Building Inspection. These building codes encourage sustainable construction practices related to planning and design, energy efficiency, and water efficiency and conservation. As a result, in the cumulative scenario, a decrease in energy consumption would be expected compared with a scenario where such regulations are not applied (i.e., existing building stock remains unimproved). Furthermore, infill development projects, such those identified in Table 2 and Figure 2 of section B, Project Setting, would be expected to decrease transportation-related energy demands compared with projects located in areas with higher average vehicle miles traveled (VMT). Therefore, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively significant impact related to mineral and energy resources.

---

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
----------------	---------------------------------------	---	-------------------------------------	------------------	-----------------------

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

**—Would the project:**

<b>Topics:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>	<b>Not Applicable</b>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is located within an urban area of San Francisco (Bayview neighborhood) that does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; forest land; or land under Williamson Act contract. The project site and vicinity is not zoned for any agricultural uses. Therefore, topics 17a, b, c, d, and e are not applicable to the proposed project.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>18. MANDATORY FINDINGS OF SIGNIFICANCE—</b>					
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As discussed in sections E.1 through E.17, impacts resulting from the proposed project are anticipated to be less than significant or less than significant with mitigation in the case of cultural resources and air quality. As described in section E.3, Cultural Resources, the proposed project could result in a substantial adverse change to archeological resources. However, implementation of **Mitigation Measure M-CR-2, Accidental Discovery** would reduce this potential impact to a less-than-significant level. As detailed in section E.6, Air Quality, construction activities associated with the proposed project would generate additional air pollution that would affect nearby sensitive receptors and result in a significant impact. However, implementation of **Mitigation Measure M-AQ-2, Construction Air Quality**, would reduce the magnitude of this impact to a less-than-significant level. Therefore, the proposed project would not result in a significant impact through the elimination of important examples of major periods of California history or prehistory or the exposure of nearby sensitive receptors to substantial additional air pollution.

In summary, both short-term and long-term project-level and cumulative environmental effects, including substantial adverse effects on human beings, associated with the proposed project would be less than significant or less than significant with mitigation, as discussed under each environmental topic.

## F. MITIGATION MEASURES

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

### **Mitigation Measure M-CR-2: Accidental Discovery**

The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in *CEQA Guidelines* section 15064.5(a) and (c), tribal cultural resources as defined in *CEQA Statute* section 21074, and human remains. The project sponsor shall distribute the Planning Department archeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel including, machine operators, field crew, pile drivers, supervisory personnel, etc. The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet.

A preconstruction training shall be provided to all construction personnel performing or managing soils disturbing activities by a qualified archaeologist prior to the start of soils disturbing activities on the project. The training may be provided in person or using a video and include a handout prepared by the qualified archaeologist. The video and materials will be reviewed and approved by the ERO. The purpose of the training is to enable personnel to identify archeological resources that may be encountered and to instruct them on what to do if a potential discovery occurs. Images of expected archeological resource types and archeological testing and data recovery methods should be included in the training.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of an archeological consultant from the pool of qualified archeological consultants maintained by the Planning Department archaeologist. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor. The ERO may also determine that the

archeological resources is a tribal cultural resource and will consult with affiliated Native Americans tribal representatives, if warranted.

Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; an archeological testing program; and an interpretative program. If an archeological monitoring program, archeological testing program, or interpretative program is required, it shall be consistent with the Environmental Planning (EP) division guidelines for such programs. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

If human remains and associated or unassociated funerary objects are discovered during any soils disturbing activity, all applicable State and Federal Laws shall be followed, including immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The ERO shall also be immediately notified upon discovery of human remains. The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond six days after the discovery to make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO. If no agreement is reached State regulations shall be followed including the reinterment of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Pub. Res. Code Sec. 5097.98).

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

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning

Department shall receive one bound copy, one unbound copy and one unlocked, searchable PDF copy on CD 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 high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

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

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

A. *Engine Requirements.*

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

B. *Waivers.*

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

need to use off-road equipment that is not retrofitted with an ARB Level 3 VDECS. If the ERO grants the waiver, the Contractor must use the next cleanest piece of off-road equipment, according to Table below.

**Table – Off-Road Equipment Compliance Step-down Schedule**

<b>Compliance Alternative</b>	<b>Engine Emission Standard</b>	<b>Emissions Control</b>
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 project sponsor shall ensure that all applicable requirements of the Plan have been incorporated into the contract specifications. The Plan shall include a certification statement that the Contractor agrees to comply fully with the Plan.
3. The Contractor shall make the Plan available to the public for review on-site during working hours. The Contractor shall post at the construction site a legible and visible sign summarizing the Plan. The sign shall also state that the public may ask to inspect the Plan for the project at any time during working hours and shall explain how to request to inspect the Plan. The Contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right of way.

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

---

## **G. PUBLIC NOTICE AND COMMENT**

On December 9, 2016, 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. Three replies were received in response to the notification: two expressed concerns related to the potential environmental impacts of the project; one requested more information about the project. Collectively, the environmental concerns raised by the two respondents include: increased congestion induced by the addition of new residences in an area with existing parking shortages; the potential release of hazardous materials to the air; construction-related noise; and a reduction in street access and enjoyment of outdoor space due to increased congestion caused by construction vehicles.

These concerns were incorporated into the environmental review of the proposed project and addressed in section D, Summary of Environmental Effects; section E.4, Transportation and Circulation; section E.5, Noise; section E.6, Air Quality; and section E.15, Hazards and Hazardous Materials.

**H. DETERMINATION**

On the basis of this Initial Study:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

DATE

12/12/18



Lisa Gibson  
Environmental Review Officer  
for  
John Rahaim  
Director of Planning

## **I. INITIAL STUDY PREPARERS**

### **Report Authors**

San Francisco Planning Department  
Environmental Planning Division  
City and County of San Francisco  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

Environmental Review Officer:	Lisa Gibson
Principal Environmental Planner:	Chelsea Fordham
Environmental Planner:	Jennifer McKellar
Archeologist:	Sally Morgan
Current Planner:	Esmeralda Jardines

### **Geotechnical Consultant**

**Frank Lee & Associates**  
10 Kootenai Court  
Fremont, CA 94539

Principal:	Frank Lee, Professional Engineer, CE34975
------------	---

### **Hazardous Materials Consultant**

**Pangea Environmental Services, Inc.**  
1710 Franklin Street, Suite 200  
San Francisco, CA 94124

Principal Engineer:	Bob Clark-Riddell, P.E.
---------------------	-------------------------

### **Project Sponsor**

**Yin Kwan Tam**  
1320 Marin Street  
San Francisco, CA 94124

Project Sponsor Representative:	Jeremy Schaub, Schaub Ly Architects, Inc.
---------------------------------	---

## **J. APPENDIX**

### **159-161 Charter Oak Avenue Planning Set**

Sheet A-1.1: Proposed Site Plan

Sheet A-2.0: Ground Floor Plans

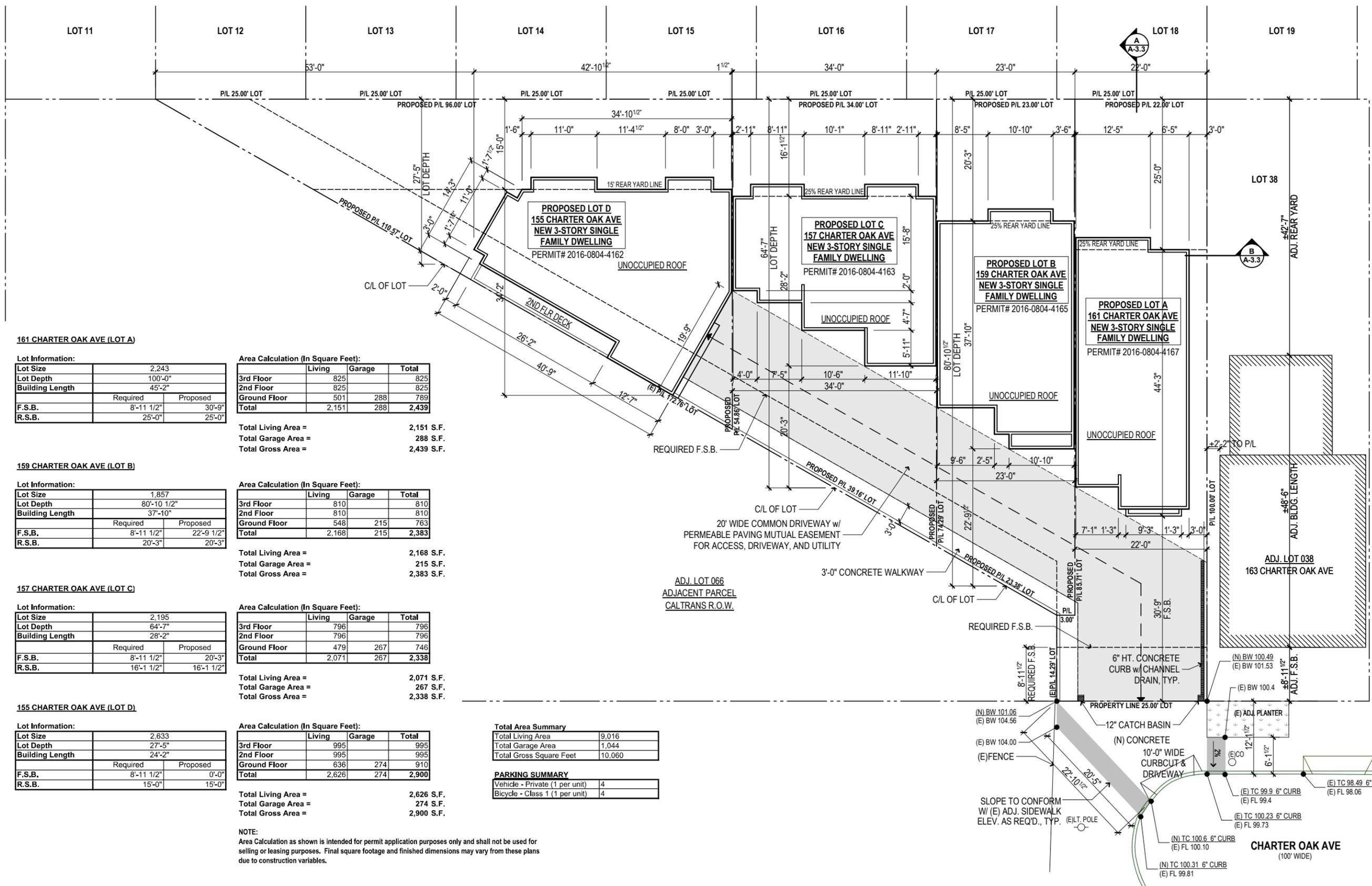
Sheet A-2.1: Second Floor Plans

Sheet A-2.2: Third Floor Plans

Sheet A-3.0: Front Elevations

Sheet A-3.2: Side Elevations and Window Details

Sheet A-3.3: Sections



**161 CHARTER OAK AVE (LOT A)**

Lot Information:		
Lot Size	2,243	
Lot Depth	100'-0"	
Building Length	45'-2"	
	Required	Proposed
F.S.B.	8'-11 1/2"	30'-9"
R.S.B.	25'-0"	25'-0"

Area Calculation (In Square Feet):			
3rd Floor	Living	Garage	Total
	825		825
2nd Floor	825		825
Ground Floor	501	288	789
Total	2,151	288	2,439

Total Living Area = 2,151 S.F.  
 Total Garage Area = 288 S.F.  
 Total Gross Area = 2,439 S.F.

**159 CHARTER OAK AVE (LOT B)**

Lot Information:		
Lot Size	1,857	
Lot Depth	80'-10 1/2"	
Building Length	37'-10"	
	Required	Proposed
F.S.B.	8'-11 1/2"	22'-9 1/2"
R.S.B.	20'-3"	20'-3"

Area Calculation (In Square Feet):			
3rd Floor	Living	Garage	Total
	810		810
2nd Floor	810		810
Ground Floor	548	215	763
Total	2,168	215	2,383

Total Living Area = 2,168 S.F.  
 Total Garage Area = 215 S.F.  
 Total Gross Area = 2,383 S.F.

**157 CHARTER OAK AVE (LOT C)**

Lot Information:		
Lot Size	2,195	
Lot Depth	64'-7"	
Building Length	28'-2"	
	Required	Proposed
F.S.B.	8'-11 1/2"	20'-3"
R.S.B.	16'-1 1/2"	16'-1 1/2"

Area Calculation (In Square Feet):			
3rd Floor	Living	Garage	Total
	796		796
2nd Floor	796		796
Ground Floor	479	267	746
Total	2,071	267	2,338

Total Living Area = 2,071 S.F.  
 Total Garage Area = 267 S.F.  
 Total Gross Area = 2,338 S.F.

**155 CHARTER OAK AVE (LOT D)**

Lot Information:		
Lot Size	2,633	
Lot Depth	27'-5"	
Building Length	24'-2"	
	Required	Proposed
F.S.B.	8'-11 1/2"	0'-0"
R.S.B.	15'-0"	15'-0"

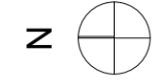
Area Calculation (In Square Feet):			
3rd Floor	Living	Garage	Total
	995		995
2nd Floor	995		995
Ground Floor	636	274	910
Total	2,626	274	2,900

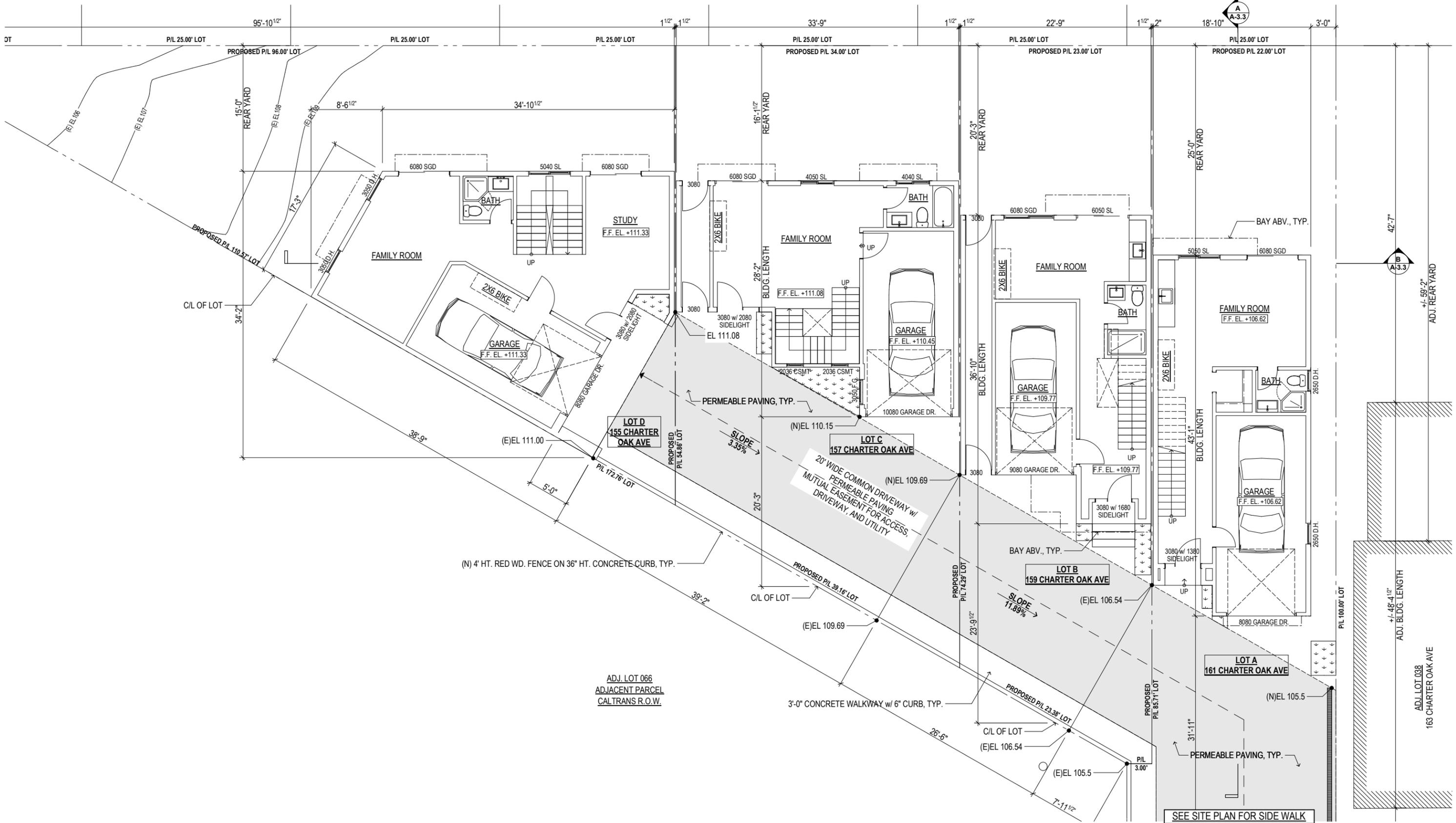
Total Living Area = 2,626 S.F.  
 Total Garage Area = 274 S.F.  
 Total Gross Area = 2,900 S.F.

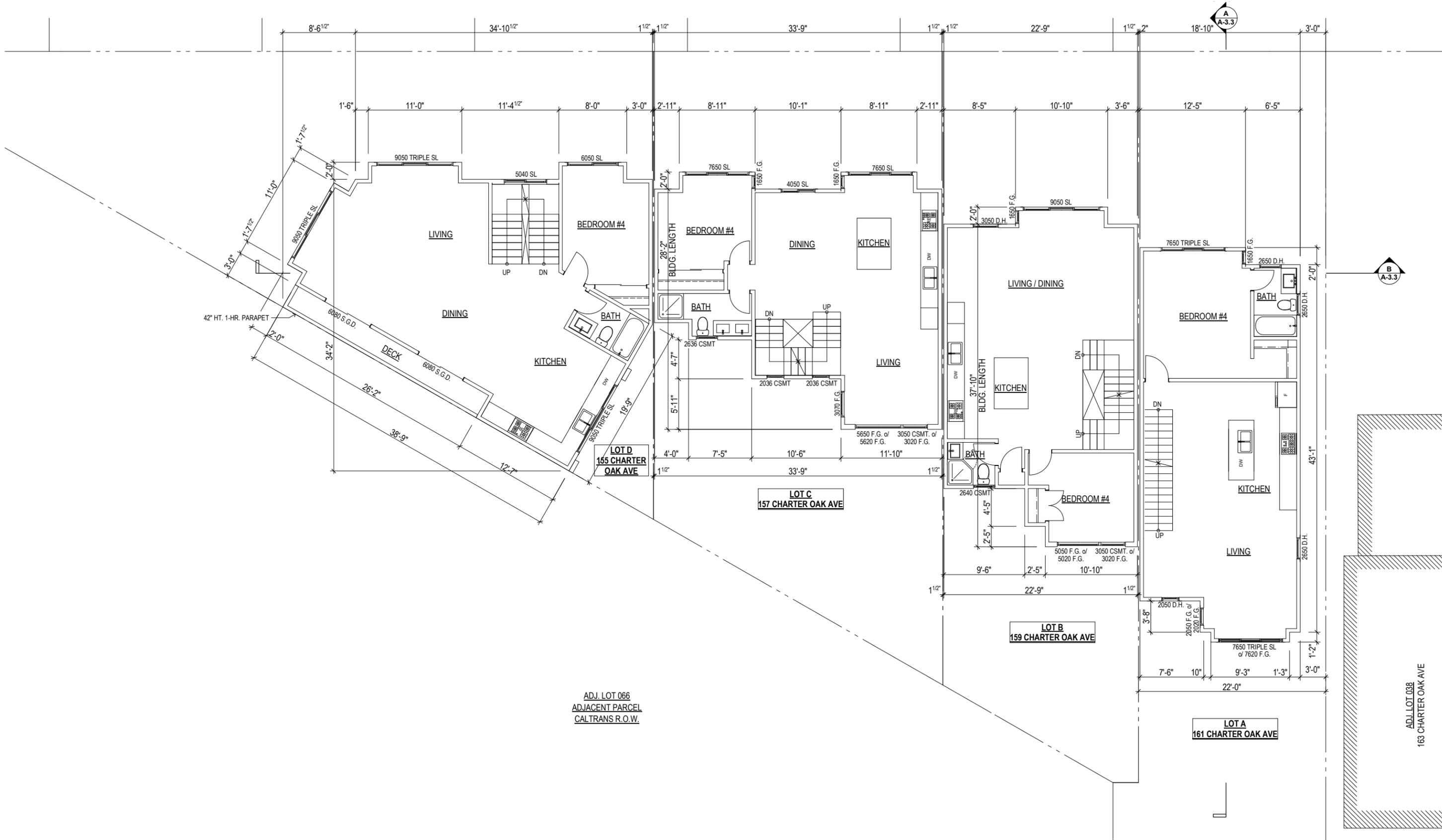
Total Area Summary	
Total Living Area	9,016
Total Garage Area	1,044
Total Gross Square Feet	10,060

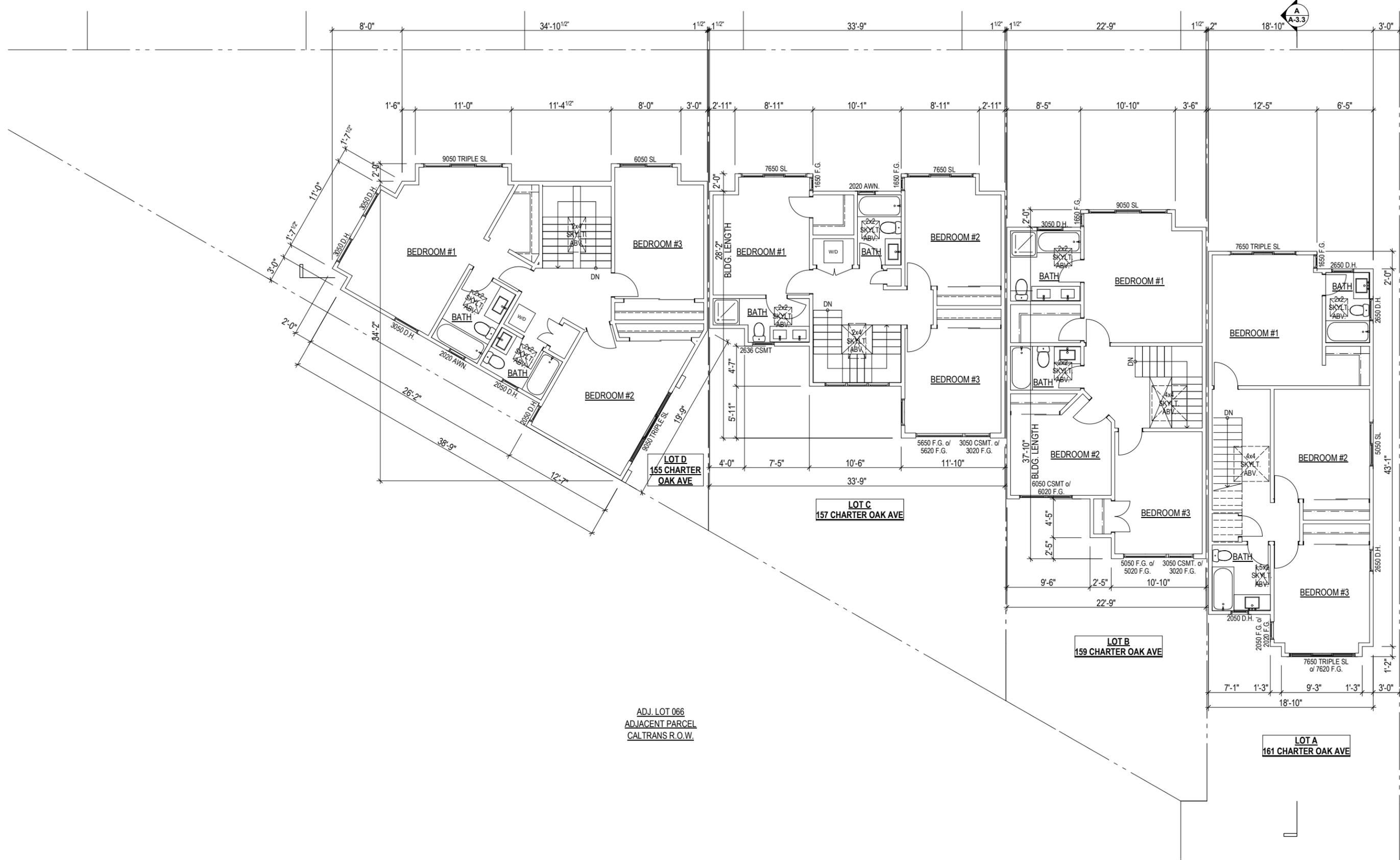
PARKING SUMMARY	
Vehicle - Private (1 per unit)	4
Bicycle - Class 1 (1 per unit)	4

NOTE:  
 Area Calculation as shown is intended for permit application purposes only and shall not be used for selling or leasing purposes. Final square footage and finished dimensions may vary from these plans due to construction variables.











**155 CHARTER OAK AVE FRONT ELEVATION**

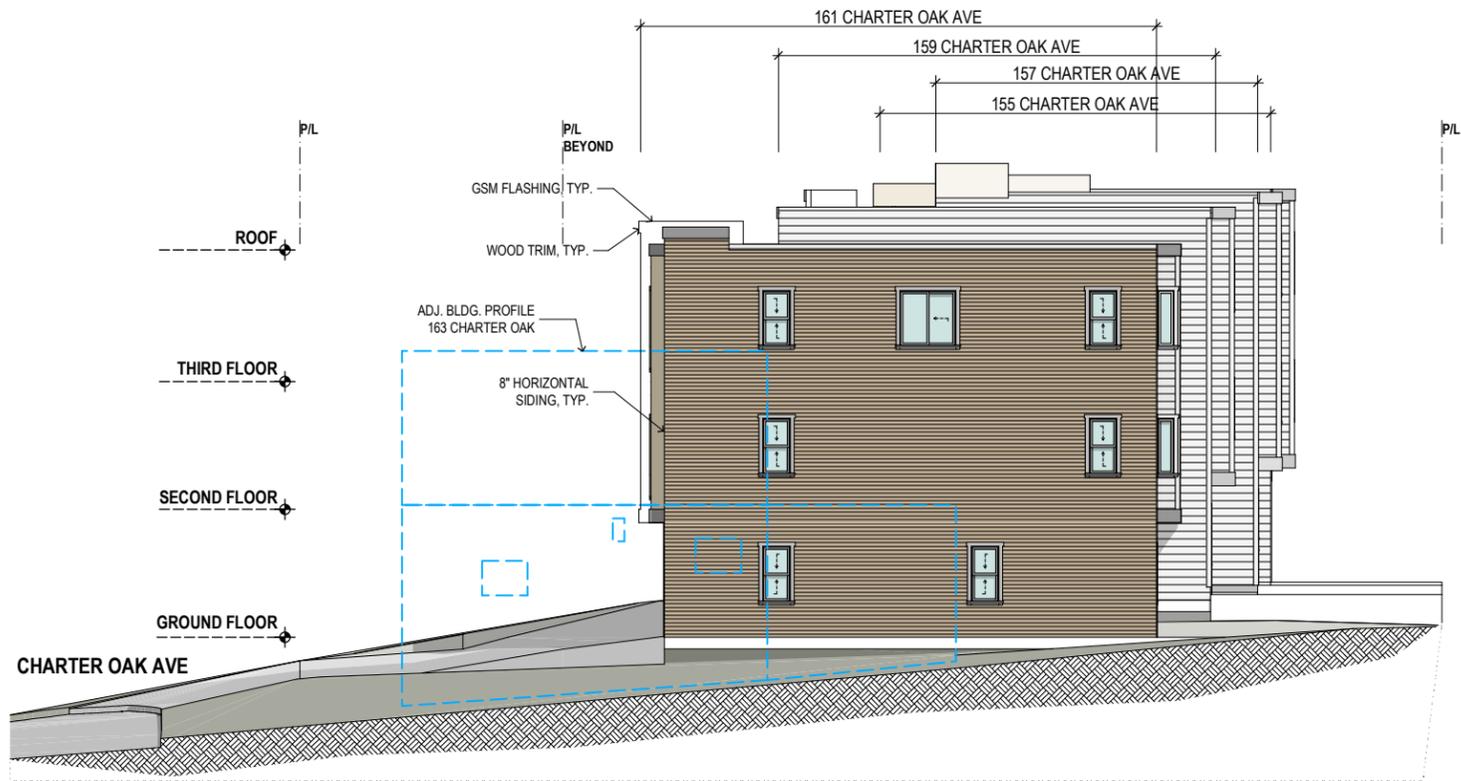
ALL DIMENSIONS FROM FINISH TO FINISH, U.O.N.





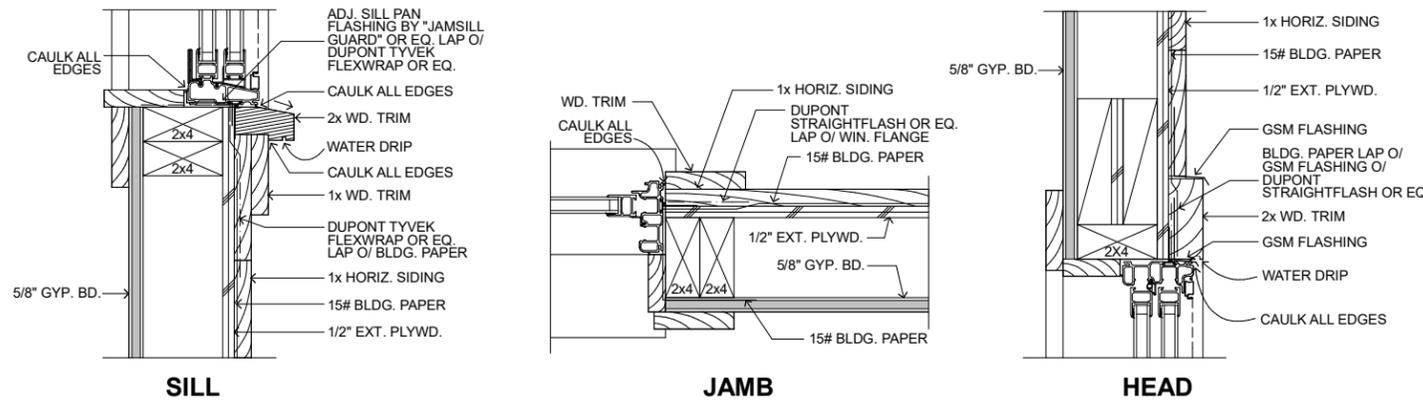
**LEFT/NORTH ELEVATION**

ALL DIMENSIONS FROM FINISH TO FINISH, U.O.N.



**RIGHT/SOUTH ELEVATION**

ALL DIMENSIONS FROM FINISH TO FINISH, U.O.N.

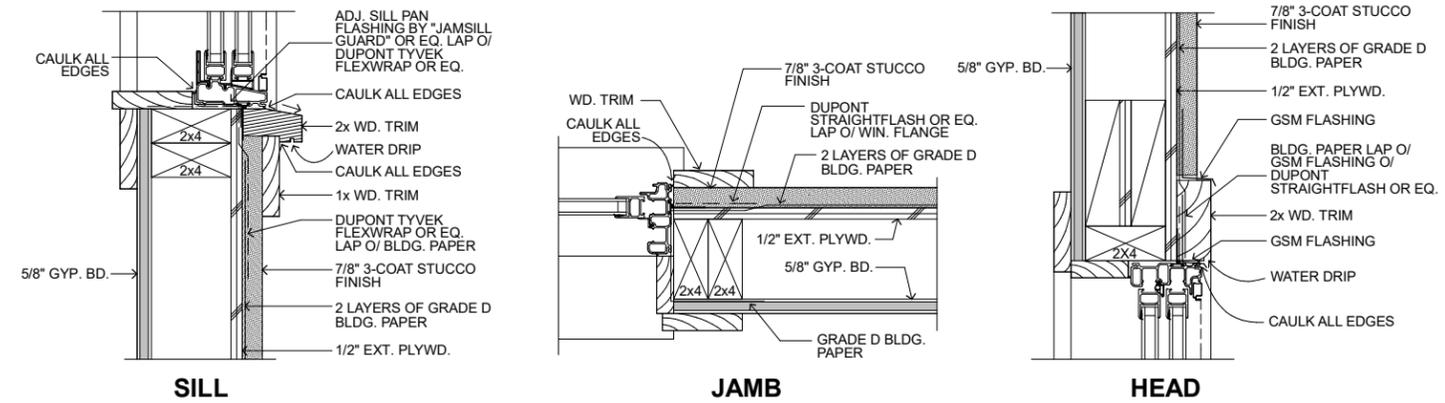


**WINDOW DETAIL - WOOD SIDING**

SCALE 3" = 1'-0"

1. PROVIDE FLASHING SYSTEM BY DUPONT TYVEK OR EQ., U.O.N.
2. INSTALL ALL WINDOWS & FLASHING PER MFR. INSTRUCTIONS
3. VERIFY EGRESS SIZES W/ MANUFACTURER

"INTEGRITY ALL-ULTREX" WINDOW BY MARVIN OR EQ., TYP.

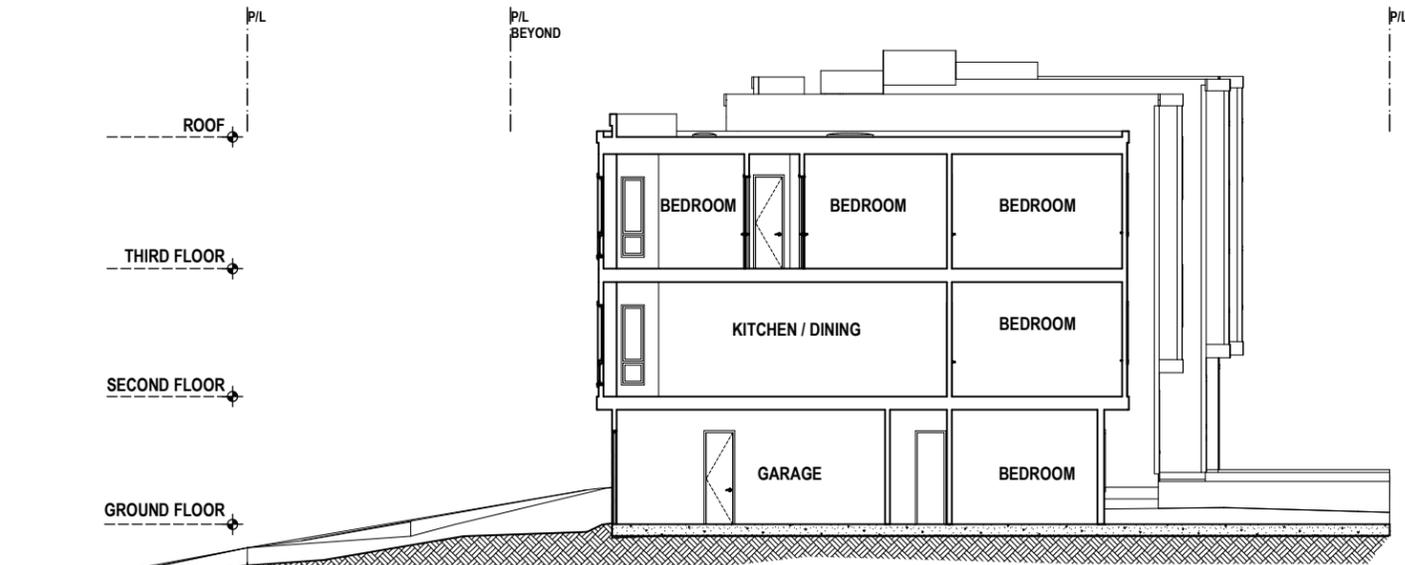


**WINDOW DETAIL - STUCCO**

SCALE 3" = 1'-0"

1. PROVIDE FLASHING SYSTEM BY DUPONT TYVEK OR EQ., U.O.N.
2. INSTALL ALL WINDOWS & FLASHING PER MFR. INSTRUCTIONS
3. VERIFY EGRESS SIZES W/ MANUFACTURER

"INTEGRITY ALL-ULTREX" WINDOW BY MARVIN OR EQ., TYP.



**CROSS SECTION A**

ALL DIMENSIONS FROM FINISH TO FINISH, U.O.N.



**LONGITUDINAL SECTION B**

ALL DIMENSIONS FROM FINISH TO FINISH, U.O.N.