

**388 VINTAGE PARK DRIVE PROJECT
INITIAL STUDY**

FOSTER CITY, CALIFORNIA

LSA

July 2021

This page intentionally left blank

388 VINTAGE PARK DRIVE PROJECT INITIAL STUDY

FOSTER CITY, CALIFORNIA

Submitted to:

Sofia Mangalam, Planning Manager
City of Foster City
Community Development Department
610 Foster City Boulevard
Foster City, California 94404

Prepared by:

LSA
157 Park Place
Pt. Richmond, California 94801
510.236.6810

Project No. CFS2101



July 2021

This page intentionally left blank

TABLE OF CONTENTS

FIGURES AND TABLES	ii
LIST OF ABBREVIATIONS AND ACRONYMS	iii
1.0 PROJECT INFORMATION	1-1
2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED.....	2-1
2.1 Determination	2-1
3.0 CEQA ENVIRONMENTAL CHECKLIST	3-1
3.1 Aesthetics	3-1
3.2 Agriculture and Forestry Resources	3-2
3.3 Air Quality	3-4
3.4 Biological Resources.....	3-5
3.5 Cultural Resources	3-13
3.6 Energy.....	3-17
3.7 Geology and Soils	3-21
3.8 Greenhouse Gas Emissions	3-30
3.9 Hazards and Hazardous Materials	3-31
3.10 Hydrology and Water Quality	3-32
3.11 Land Use and Planning	3-46
3.12 Mineral Resources.....	3-47
3.13 Noise.....	3-48
3.14 Population and Housing	3-49
3.15 Public Services.....	3-51
3.16 Recreation	3-53
3.17 Transportation	3-54
3.18 Tribal Cultural Resources	3-55
3.19 Utilities and Service Systems.....	3-57
3.20 Wildfire.....	3-58
3.21 Mandatory Findings of Significance	3-60
4.0 LIST OF PREPARERS	4-1
5.0 REFERENCES	5-1

APPENDICES

A: CALEEMOD OUTPUT DATA

FIGURES AND TABLES

FIGURES

Figure 1-1: Project Location and Regional Vicinity Map	1-3
Figure 1-2: Aerial Photograph of the Project Site and Surrounding Land Uses.....	1-4
Figure 1-3: Existing Site Conditions.....	1-7
Figure 1-4: Photo Locations Map	1-8
Figure 1-5: Photos of Existing Site.....	1-9
Figure 1-6: Proposed Conceptual Site Plan.....	1-10
Figure 1-7: Proposed Conceptual Ground Level Site Plan	1-11
Figure 1-8: Proposed Conceptual Second and Third Level Floor Plans.....	1-12
Figure 1-9: Proposed Conceptual Fourth Level Floor Plan	1-13
Figure 1-10: Proposed Conceptual Roof Plan	1-14
Figure 1-11: Proposed Conceptual Building Elevations – East and North	1-15
Figure 1-12: Proposed Conceptual Building Elevations – South and West.....	1-16
Figure 1-13: Proposed Conceptual Building Sections	1-17
Figure 1-14: Photos of Surrounding Land Uses.....	1-21
Figure 1-15: Photos of Surrounding Land Uses.....	1-22

TABLES

Table A: Anticipated Permits and Approvals for Project Implementation	1-23
Table B: Estimated Annual Energy Use of Proposed Project	3-18

LIST OF ABBREVIATIONS AND ACRONYMS

APN	Assessor's Parcel Number
ASCE	American Society of Civil Engineers
BAAQMD	Bay Area Air Quality Management District
BAT	Best Available Technology
Bay	San Francisco Bay
BCT	Best Conventional Technology
BMP	best management practices
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CBC	California Building Code
CEC	California Energy Commission
CESA	California Endangered Species Act
CGS	California Geological Survey
C-M	Commercial Mix District
PD	Planned Development Combining District
COA	Condition of Approval
CWA	Clean Water Act
DOT	U.S. Department of Transportation
EIR	Environmental Impact Report
EMID	Estero Municipal Improvement District
EPA	Environmental Protection Agency
ESA	Endangered Species Act
EV	electric vehicle

FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
Gilead	Gilead Sciences, Inc.
GWh	gigawatt-hours
IBC	International Building Code
kWh	kilowatt-hours
LCSD	Lower Crystal Springs Dam
LEED	Leadership in Energy and Environmental Design
LID	Low Impact Development
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MRP	Municipal Regional Permit
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
PG&E	Pacific Gas & Electric
proposed project	388 Vintage Park Drive Project
project sponsor	W-SW 388 Owner IX, L.P. c/o SteelWave CDS, LLC (a Joint Venture by SteelWave and Helios Real Estate Partners)
PVC	Polyvinyl chloride
QSP	Qualified SWPPP Practitioner
R&D	research and development
SB50	Senate Bill 50
SMFCSD	San Mateo-Foster City School District

SMUHSD	San Mateo Union High School District
SR 92	State Route 92
SRA	State Responsibility Areas
SWCP	Stormwater Control Plan
SWPPP	Stormwater Pollution Prevention Plan
TIA	Transportation Impact Analysis
TMDL	total maximum daily load
TPZ	Tree Protection Zone
US 101	U.S. Highway 101
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
VPCA	Vintage Park Community Association
ZE	zero emission

This page intentionally left blank

1.0 PROJECT INFORMATION

The following is an Initial Study/Environmental Checklist for the proposed 388 Vintage Park Drive Project (proposed project). This checklist will be used to identify areas to be further discussed in an Environmental Impact Report (EIR). This Initial Study was prepared in compliance with the City of Foster City/Estero Municipal Improvement District (EMID) Environmental Review Guidelines.¹

1. Project Title:

388 Vintage Park Drive Project

2. Lead Agency Name and Address:

City of Foster City
610 Foster City Boulevard
Foster City, CA 94404

3. Contact Person and Phone Number:

Sofia Mangalam, Planning Manager
City of Foster City
Community Development Department

Phone: 650-286-3244
Email: SMangalam@fostercity.org

4. Project Location:

388 Vintage Park Drive
Foster City, San Mateo County
Assessor's Parcel Number (APN): 094-901-270

5. Project Sponsor's Name and Address:

W-SW 388 Owner IX, L.P. c/o SteelWave CDS, LLC
(a Joint Venture by SteelWave and Helios Real Estate Partners)
999 Baker Way, Suite 200
Foster City, CA 94404

6. General Plan Designation: Research/Office Park

7. Zoning: Commercial Mix District/Planned Development Combining District (C-M/PD)

8. Description of Project:

This section describes the proposed project submitted by the Joint Venture by SteelWave and Helios Real Estate Partners (project sponsor). A description of the proposed project's location and context

¹ Foster City, City of/Estero Municipal Improvement District. 2007. *Environmental Review Guidelines*. October 1.

is followed by details of the proposed project itself and a summary of required approvals and entitlements.

Project Site

The following describes the geographic context of the project site and provides a brief overview of the existing land uses within the vicinity of the site.

Regional Location and Access

The approximately 2.2-acre project site is located at 388 Vintage Park Drive in Foster City, San Mateo County. Foster City is located approximately 23 miles south of San Francisco, at the southwest edge of San Francisco Bay (Bay).

Regional vehicular access to the project site is provided by State Route 92 (SR 92) via the Foster City Boulevard on- and off-ramps located to the east and US Highway 101 (US 101), via the SR 92 interchange to the southwest. Direct local access is via Vintage Park Drive and Chess Drive, which border the site immediately to the east and south. The project site is served by two nearby Caltrain stations: the Hayward Park Caltrain station is located approximately 2.5 west of the project site, providing weekday service from San Francisco to Gilroy and weekend service from San Francisco to San Jose and the Hillsdale Caltrain station is located 3.4 miles to the southwest. The site is also served by two bus lines, the FCX and 251. The FCX bus line runs from the project site to downtown San Francisco and the 251 bus line runs from the project site to downtown Foster City, the Hillsdale Mall, and the Hillsdale Caltrain Station.

Figure 1-1 depicts the site's regional and local context. Figure 1-2 is an aerial photograph of the project site and the vicinity.

Site Characteristics and Current Site Conditions

The generally level project site is currently developed with a single-story approximately 10,120-square-foot vacant commercial building. The existing building was constructed in approximately 1990 and was previously occupied by a restaurant (El Torito) until November 2018. Ingress and egress to the project site is provided by a driveway at the northeast corner of the project site along Vintage Park Drive and another driveway at the southwest corner of the site along Chess Drive. A total of 178 surface parking spaces are provided across the project site. Vegetation on the site consists of small landscaped areas along the eastern border of the project site and approximately 55 mature trees throughout the site.

A number of existing easements are located on the site, including an approximately 35-foot-wide Estero Municipal Improvement District (EMID) landscape and sanitary sewer easement along the eastern boundary, a 25-foot emergency vehicle access easement that runs along the western and northern borders, a 12-foot public utility easement along the southern border, and a 10-foot Pacific Gas & Electric (PG&E) easement in the northeast corner.

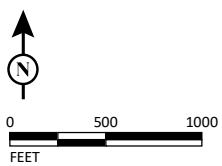


LSA

LEGEND

 Project Site Boundary

FIGURE 1-1



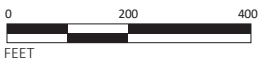
SOURCE: ESRI World Map (06/19).

I:\CFS2101\GIS\Maps\Figure 1-1_Project Location and Regional Vicinity Map.mxd (6/14/2021)



FIGURE 1-2

LSA



 Project Site Boundary

SOURCES: Google Earth, 9/26/2020; LSA, 2021

P:\CFS2101 388 Vintage Park\PRODUCTS\Graphics\Figure 1-2.ai (6/10/2021)

388 Vintage Park Drive Project Initial Study
Aerial Photograph of the Project Site and Surrounding Land Uses

Existing site conditions are depicted in Figure 1-3. Figure 1-4 depicts an aerial view of the project site and photos of existing site conditions are depicted in Figure 1-5; viewpoint locations are shown in Figure 1-4.

Regulatory Setting

The project site is located within the Vintage Park Neighborhood, which is currently designated Research/Office Park in the City’s General Plan.² This designation is intended for areas containing office, research and development, and manufacturing establishments whose operations are clean and quiet. Mixed-use projects that include some retail and residential uses in addition to office and research uses may, under certain conditions, be considered compatible with this designation.³ The Vintage Park Design Guidelines Land Use Map⁴ designates the site as “restaurant.”

The project site is located within the Commercial Mix District/Planned Development Combining District (C-M/PD). The C-M zoning allows for mixed commercial uses such as retail. However, the C-M district is required to be used only in conjunction with the combining zone PD, which is designed to accommodate various types of development and allow flexibility of design that is in accordance with the objectives and spirit of the General Plan. The current zoning for the project site is established by the Vintage Park General Development Plan (GDP), which designates the project site as a restaurant site.

Proposed Project

This section provides a description of the proposed project as identified in the project sponsor’s application materials submitted to the City, dated July 16, 2021.⁵ The proposed project would result in the demolition of the existing restaurant building and construction of an approximately 120,164-square-foot, four-story (68-foot-tall, excluding a mechanical penthouse and associated equipment that would reach 80 feet) office building including a ground-level parking podium and surface parking totaling 180 vehicle parking spaces, as well as associated open space, circulation and loading, and infrastructure improvements.

Figure 1-6 depicts the overall proposed conceptual site plan for the proposed project. Figures 1-7 through 1-9 depict the proposed conceptual site plans for the ground level through fourth floors of the proposed building. The roof plan is shown in Figure 1-10. Figures 1-11 and 1-12 show proposed conceptual building elevations, and proposed conceptual sections are shown in Figure 1-13.

² Foster City, City of. 2016. *Foster City General Plan*. February 1.

³ Foster City, City of. 2021. *Foster City Municipal Code* (as amended). Title 17. January 19.

⁴ Foster City, City of. 2021. *Vintage Park Design Guidelines*. January 22.

⁵ It should be noted that project plans, including total building square footage, parking count and other project elements, may be subject to refinement prior to City action on project entitlements. The analysis in this Initial Study is conservative and evaluates the maximum development potential for the proposed project.

Building Program

The proposed project would result in the redevelopment of the project site with a four-story “B occupancy”⁶ research and development (R&D) office use that would include three levels of occupied space above a single level of ground floor parking. The proposed building would be located in the center of the project site as shown in Figure 1-6. The second and third floors of the proposed building would each be approximately 33,000 square feet in size, while the fourth floor would be approximately 27,000 square feet. A total of 95,931 square feet of R&D space is proposed, approximately 50 percent of which would be occupied by laboratory space and 50 percent would be occupied by office space, distributed evenly throughout each floor. The mechanical penthouse would occupy approximately 20,000 square feet on the rooftop. The penthouse would be screened in metal cladding and would only be accessible to facilities management and engineers.

It is anticipated that approximately 213 employees would be accommodated on the project site, with about 213 employees at the site during peak occupancy, with variations throughout the day due to the nature of R&D uses, which typically operate outside of traditional office hours.

Open Space and Landscaping

A total of approximately 28,000 square feet of open space would be provided across the entire project site. Open space would consist of approximately 22,000 square feet of ground level common open space and an approximately 6,000-square-foot terrace on the fourth level. Of the existing 55 trees on the project site, 53 would be removed. Approximately 53 new trees would be planted throughout the project site. Additionally, another 61 off-site trees would remain around the project site, including within the EMID strip, in the Vintage Park Community Association (VPCA) park, and along the Vintage Park Drive frontage. Landscaping and other plantings would be provided through the project site, including adjacent to Vintage Park Drive.

Access, Circulation and Parking

Pedestrian access to the proposed building would be provided by both Vintage Park Drive and Chess Drive, including new sidewalks connecting to Chess Drive and a landscaped area between the Vintage Park Drive right-of-way and the proposed building. Vehicular access to the project site would be provided by the existing driveways along Vintage Park Drive and Chess Drive.

The ground level of the proposed building would include a garage that would contain approximately 87 parking spaces and would be accessed from a driveway at the northwest corner of the proposed building. An additional 93 surface parking spaces would be provided along the northern and western boundaries of the project site, for a total of 180 parking spaces. A total of 20 bicycle parking spaces would be provided in a long-term storage room in the parking garage. A total of 14 motorcycle parking spaces would be provided throughout the project site. A loading dock that would be able to accommodate a WB-40 truck⁷ would be provided at the northwest corner of the building. An additional loading zone for package drop off is proposed at the main entry.

⁶ The California Building Code (CBC) Business Group B occupancy includes the use of a building or structure for office and professional service-type transactions, including laboratories for testing and research.

⁷ A WB-40 truck is defined as a medium- to large-sized box truck or tractor trailer with a 40-inch wheelbase.

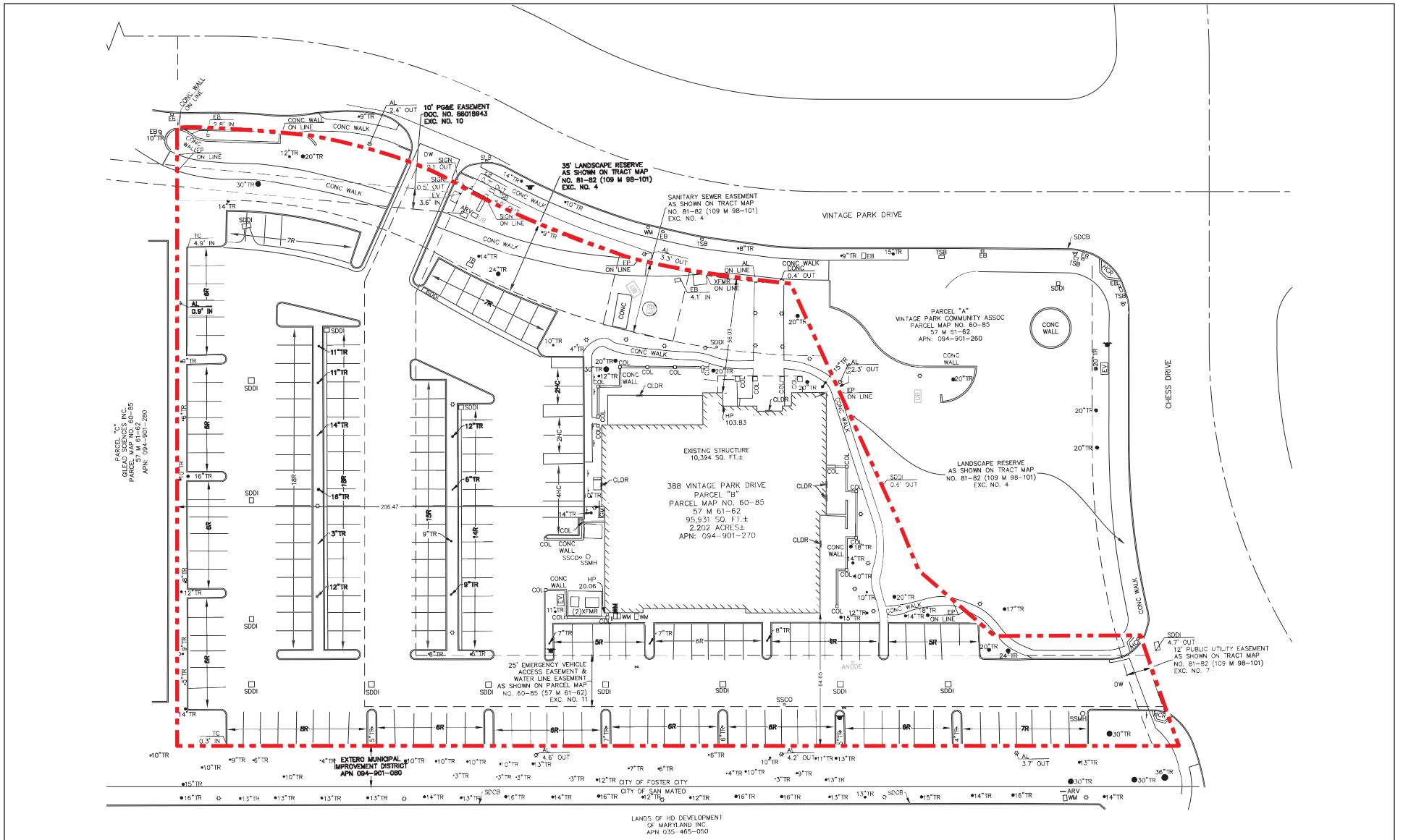


FIGURE 1-3

LSA



 Project Site Boundary

388 Vintage Park Drive Project Initial Study
Existing Site Conditions

SOURCES: DES; HELIOS; STEELWAVE, April 2021

P:\CFS2101 388 Vintage Park\PRODUCTS\Graphics\Figure 1-3.ai (6/10/2021)



FIGURE 1-4

LSA

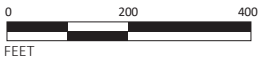


Photo Locations (Figures 1-5 and 1-14 through 1-15)



Project Site Boundary

SOURCES: Google Earth, 9/26/2020; LSA, 2021

P:\CFS2101 388 Vintage Park\PRODUCTS\Graphics\Figure 1-4.ai (6/21/2021)

388 Vintage Park Drive Project Initial Study
Photo Locations Map



Photo 1: View of the project site from Chess Drive, looking north



Photo 2: View from the northwest corner of the project site, looking southeast

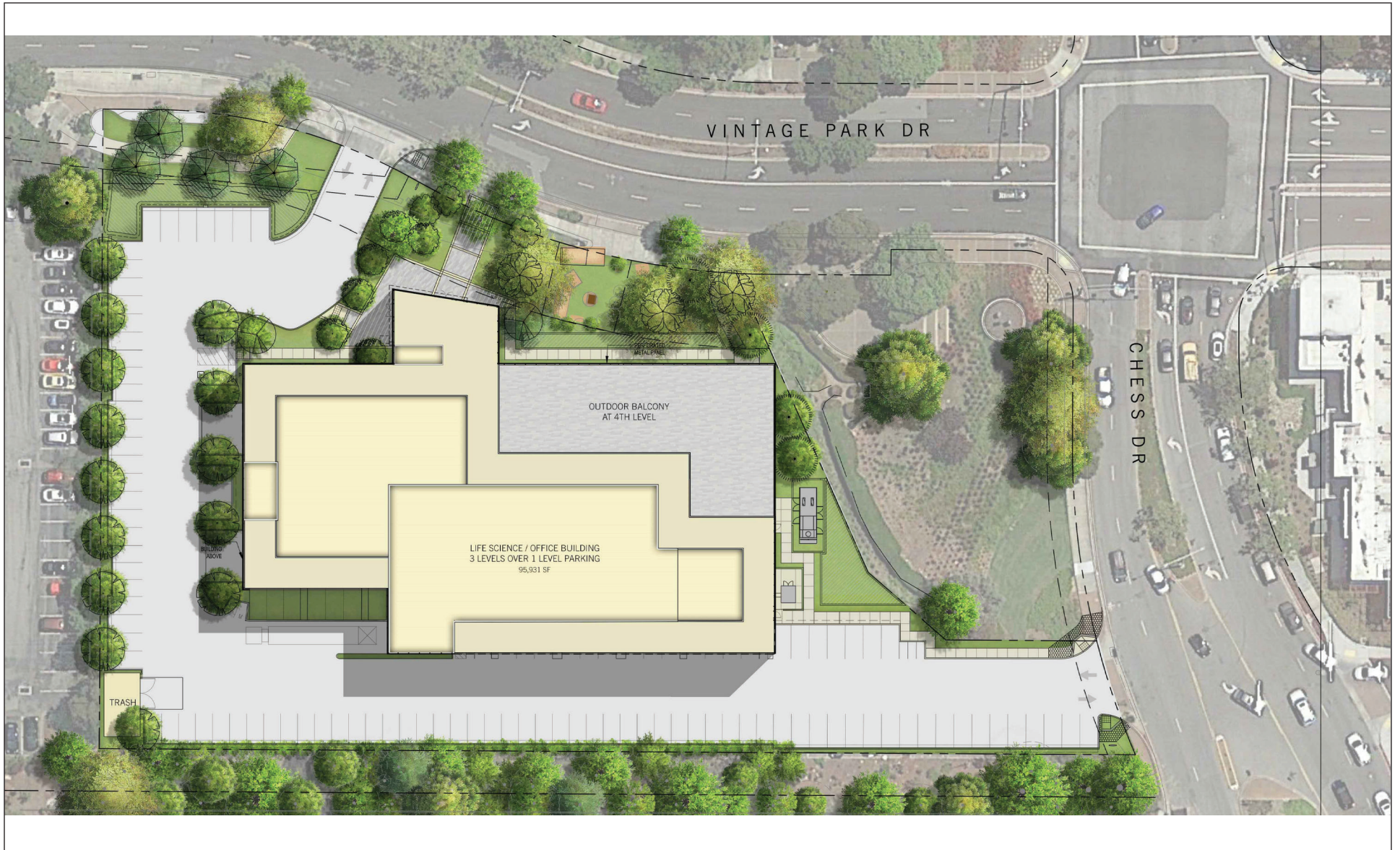


FIGURE 1-6

LSA



 Project Boundary

SOURCES: DES; HELIOS; STEELWAVE, April 18, 2021

P:\CFS2101 388 Vintage Park\PRODUCTS\Graphics\Figure 1-6.ai (6/21/2021)

388 Vintage Park Drive Project Initial Study
Proposed Conceptual Site Plan

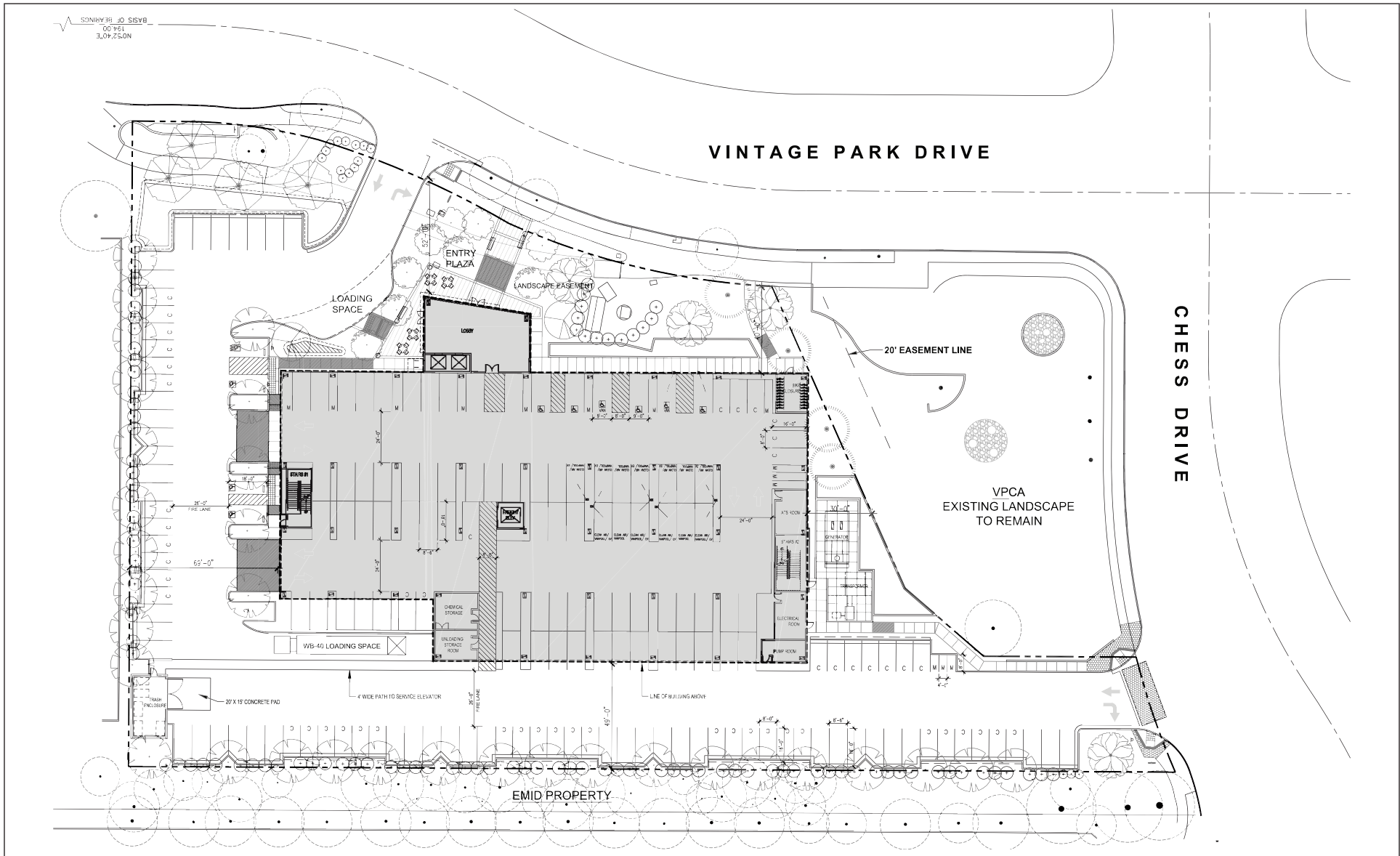
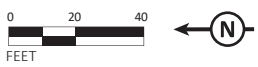


FIGURE 1-7

LSA



Project Boundary

388 Vintage Park Drive Project Initial Study
 Conceptual Ground Level Floor Plan

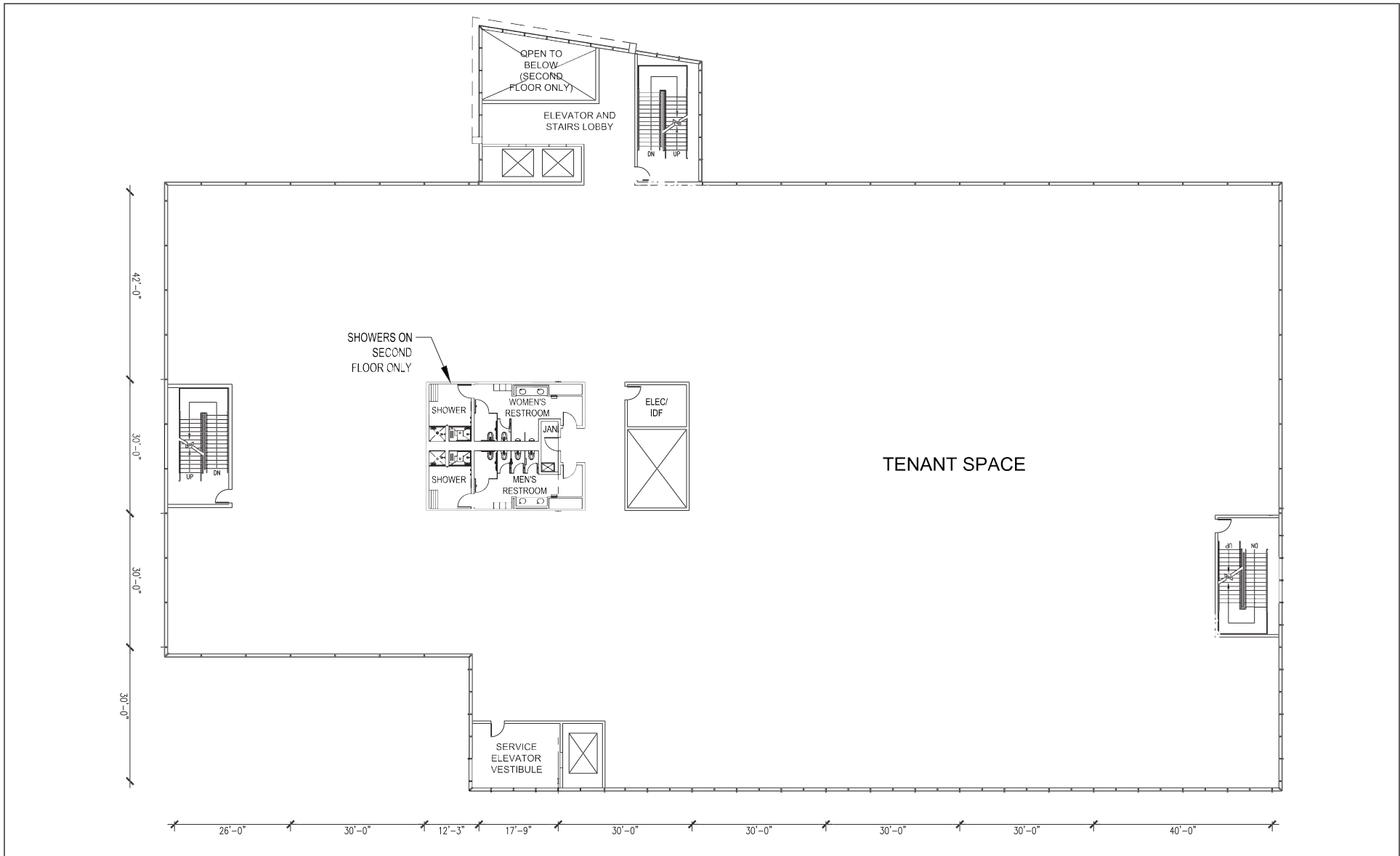


FIGURE 1-8

LSA



SOURCES: DES; HELIOS; STEELWAVE, April 2021

P:\CFS2101 388 Vintage Park\PRODUCTS\Graphics\Figure 1-8.ai (6/21/2021)

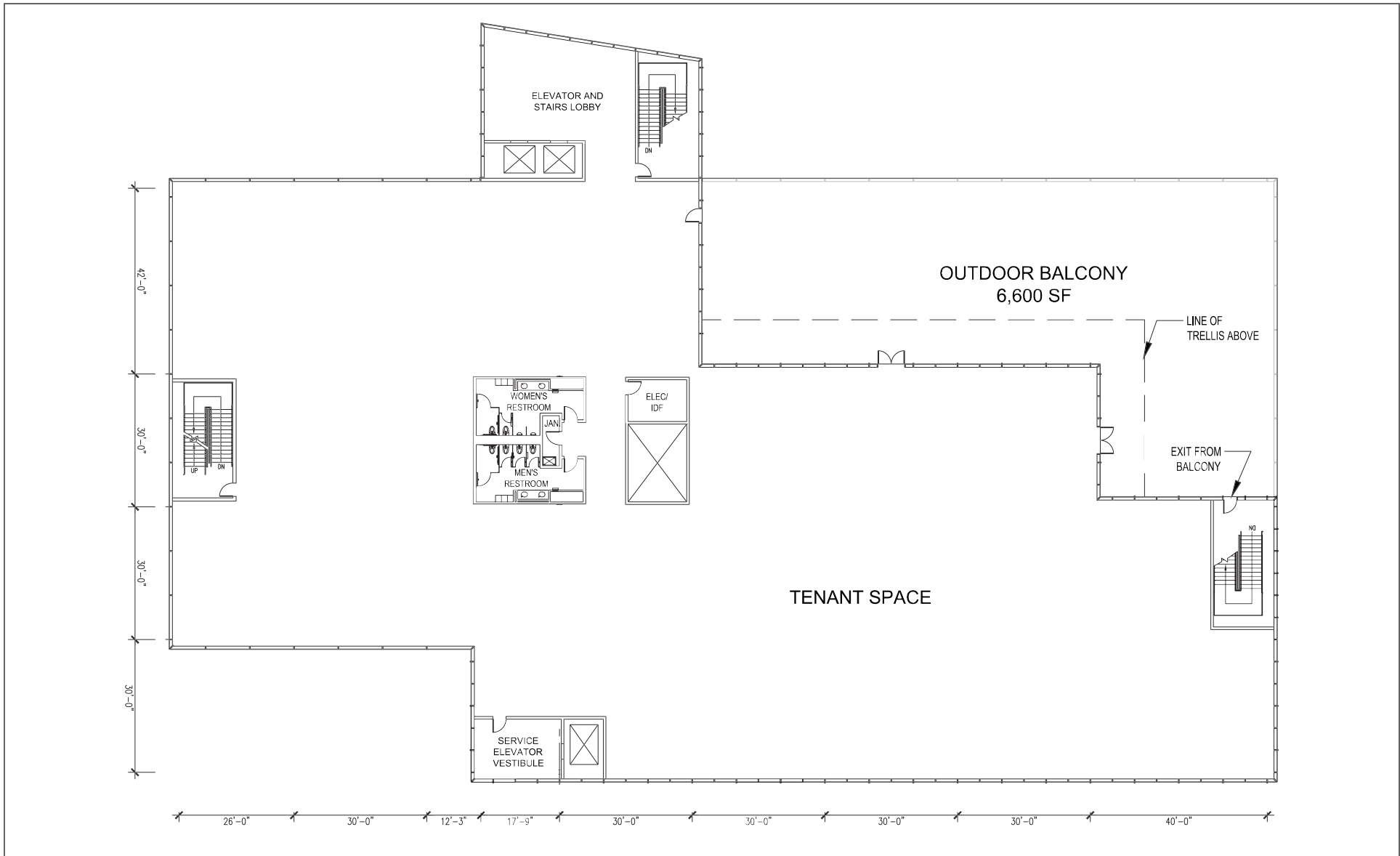


FIGURE 1-9



NOT TO SCALE

388 Vintage Park Drive Project Initial Study
 Proposed Conceptual Fourth Level Floor Plan

SOURCES: DES; HELIOS; STEELWAVE, April 2021

P:\CFS2101 388 Vintage Park\PRODUCTS\Graphics\Figure 1-9.ai (6/21/2021)

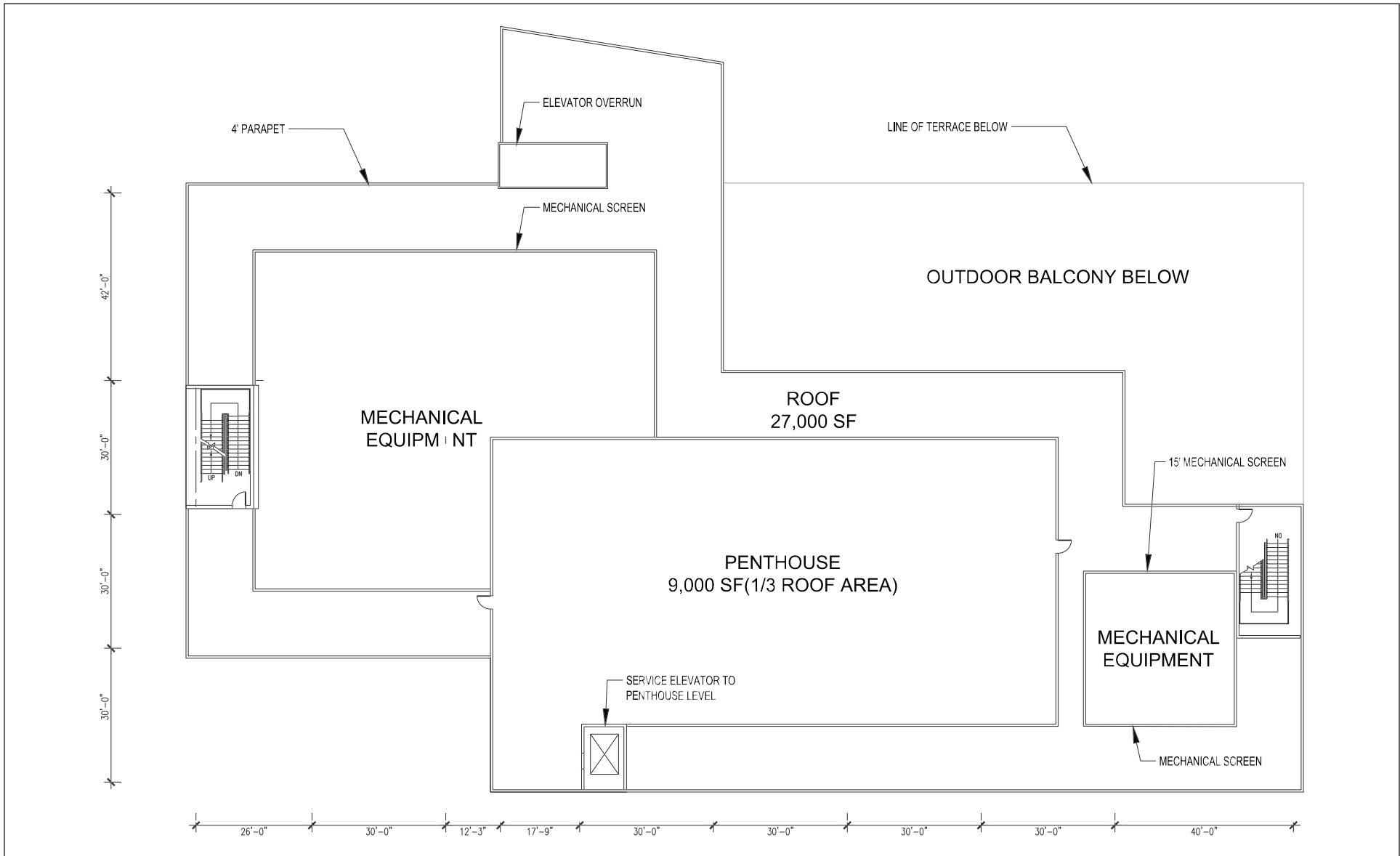


FIGURE 1-10



NOT TO SCALE



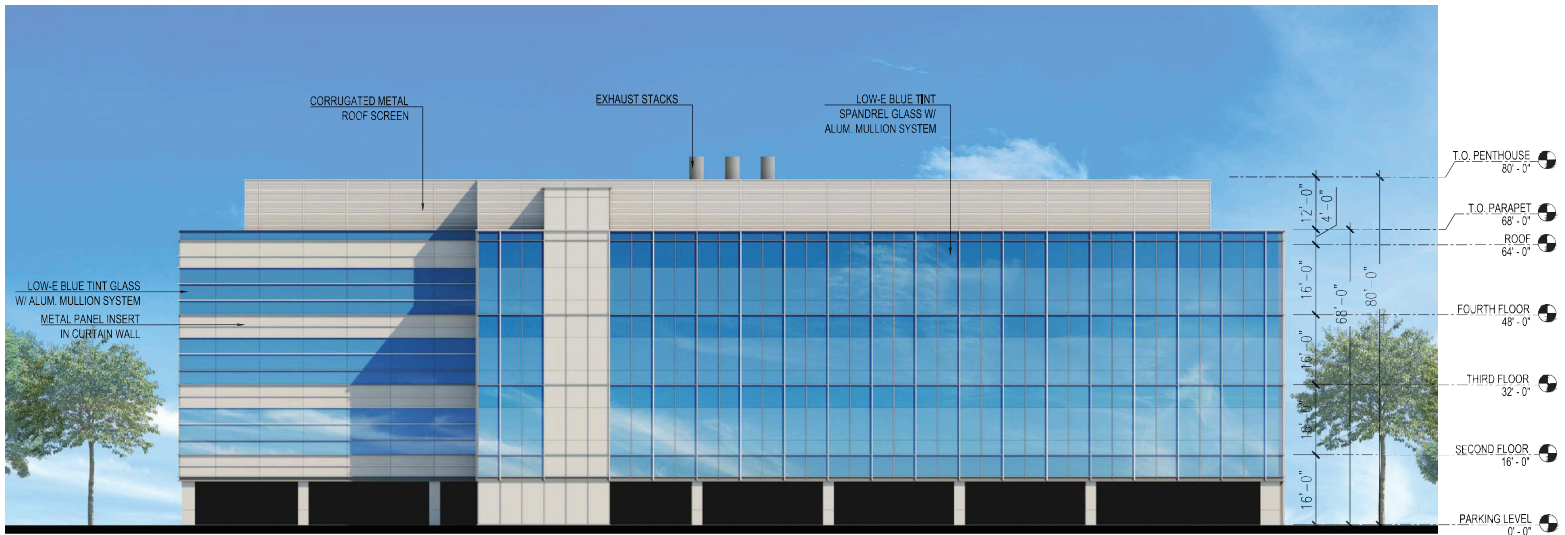
East Elevation (façade along Vintage Park Drive)



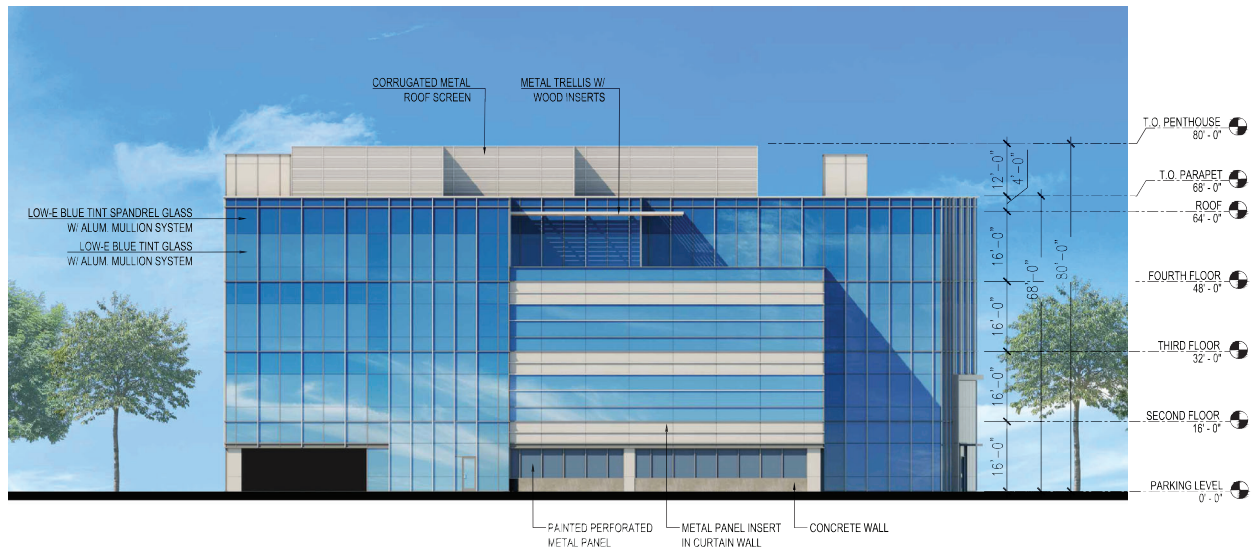
North Elevation

FIGURE 1-11



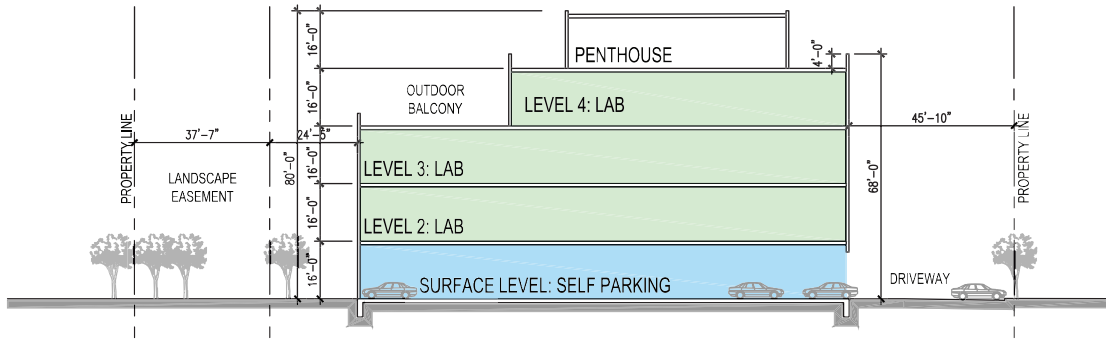


West Elevation

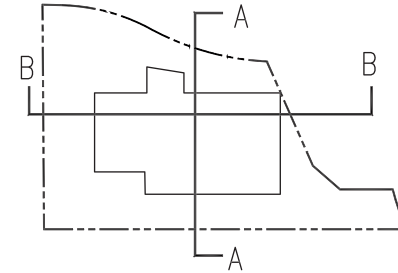


South Elevation

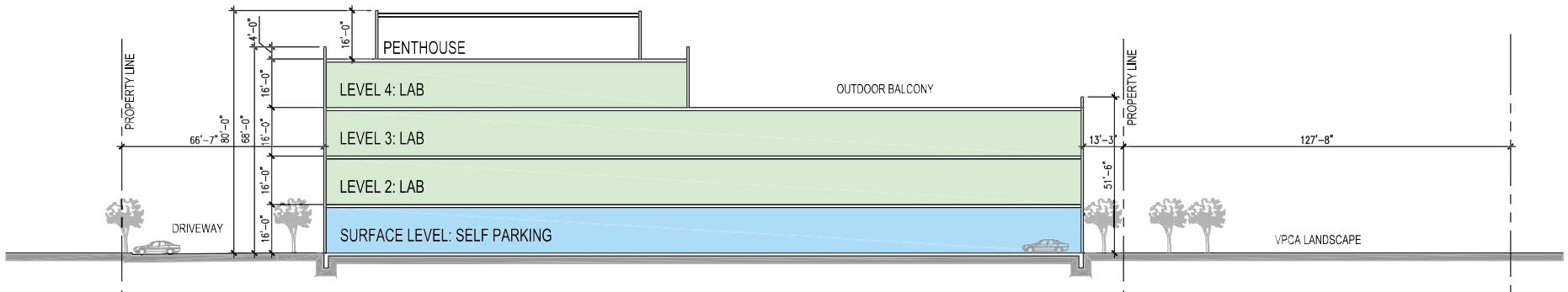
FIGURE 1-12



West to East Section - Section A



Key Plan



North to South Section - Section B

This page intentionally left blank

Utilities, Infrastructure and Easements

The project site is located in an urban area with existing utilities and infrastructure. The proposed project would be required to install the following utility connections to the satisfaction of the applicable utility providers: water; wastewater; stormwater drainage; power; and telecommunications services. The proposed building would also include a pad and enclosure for a future tenant-supplied generator. The generator would be located south of the proposed building in a perforated metal panel enclosure approximately 14 feet in height.⁸

The existing project site includes approximately 76,196 square feet of impervious surfaces and approximately 19,735 square feet of pervious surfaces. The proposed project would result in a net increase in impervious surface coverage of approximately 3,052 square feet (4 percent increase) compared to existing conditions for a total of 79,248 square feet of impervious surface and 16,683 square feet of pervious surface.

The on-site stormwater would be collected, treated per C.3 treatment methods, and conveyed to the City's storm drain main within Vintage Park Drive. The proposed project would decrease the amount of landscaping and pervious area on-site as noted above; therefore, the amount of storm water run-off from the site is expected to increase.

The proposed project would include energy efficient components and design features to achieve Leadership in Energy and Environmental Design (LEED) Silver equivalence. Specifically, measures to achieve this standard could include exterior Low-E glazing to respond to solar exposure, low-flow indoor water fixtures, advanced water and energy metering, infrastructure for electric vehicle (EV) charging, and enhanced indoor air quality strategies including advanced ventilation.

The proposed building would be located generally within the same footprint as the existing building. The project sponsor is currently pursuing establishment of a new no build and maintenance easement with the VPCA.

Demolition, Grading and Construction

The proposed project would include demolition of the existing building and surface parking lots on the project site. Construction debris, such as old foundations, pavements, and structures, would be collected and hauled off-site for disposal. Approximately 180 tons of demolition waste would be generated by the proposed project and approximately 75 percent of those materials would be recycled.⁹ Other than spoils, excavated soils would be balanced on the project site and, therefore, substantial import or export would not be required. The project sponsor is proposing to implement

⁸ For the purposes of this analysis, this generator is assumed to be a 250 kilowatt diesel generator that would operate 52 hours per year (one hour per week) for testing and would be used for emergency backup only.

⁹ Tubbs, Curtis, Project Construction Contractor. 2021. Personal communication with Peter Banzhaf, Project Sponsor. June 30.

displacement auger cast piles or vibrated-in H steel piles for foundation installation; pile driving is not proposed.¹⁰

If approved, construction of the proposed project is anticipated to begin in spring 2022. Overall, construction of the proposed project is anticipated to last approximately 17 months and is anticipated to be fully operational and occupied by late 2023.

9. Surrounding Land Uses and Setting:

The project site is located in the Vintage Park neighborhood in the northwest portion of the city at the municipal boundary between Foster City and San Mateo County. The Vintage Park neighborhood is generally bound by the San Francisco Bay to the north, Foster City Boulevard to the east, SR 92 to the south, and the municipal boundary of San Mateo to the west. The project site is generally surrounded by a mix of uses, consisting mostly of new construction, as depicted in Figure 1-2 and further described below. Figures 1-14 and 1-15 include photos of surrounding land uses; refer to Figure 1-4 for photo viewpoint locations.

- **North of the Project Site.** The project site is bordered to the north by a commercial building (Photo 3). Further north of the project site is the Gilead Sciences, Inc. (Gilead) campus, Vintage Park Drive, and light industrial and commercial uses. The Gilead campus consists of approximately 23 life sciences and R&D buildings, as well as associated parking and open space.
- **East of the Project Site.** The project site is bordered immediately to the east by Vintage Park Drive, which is a four-lane divided roadway in the vicinity of the project site. Further east of the project site are commercial and hotel uses (Photo 4), as well as the Foster City Boulevard on- and off-ramp for SR 92.
- **South of the Project Site.** The project site is bound immediately to the south by a small park owned by the VPCA (Photo 5). Further south is Chess Drive, across which are commercial and hotel uses and SR 92.
- **West of the Project Site.** The project site is bordered to the west by The Home Depot commercial warehouse building (Photo 6), past which are hotel and commercial uses. Bridgepoint Circle is further west, across which are residential, commercial, and institutional uses.

¹⁰ Rockridge Geotechnical. 2021a. 388 Vintage Parkway Geotechnical Consultation regarding H-piles. June 30.



Photo 3: Photo of the commercial building north of the project site, as seen from Vintage Park Drive



Photo 4: Photo of the commercial building east of the project site, as seen from Vintage Park Drive



Photo 5: Photo of the VPCA park south of the project site, as seen from the intersection of Vintage Park Drive and Chess Drive



Photo 6: Photo of The Home Depot from the project site, looking west

10. Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):

A number of permits and approvals would be required to allow development of the proposed project. As lead agency for consideration of the proposed project, the City of Foster City would be responsible for the majority of the approvals required for project development. Other agencies also may have some authority related to the proposed project and its approvals. A list of required permits and approvals, including the discretionary actions described above, which may be required by the City and other agencies, is provided in Table A.

Table A: Anticipated Permits and Approvals for Project Implementation

Lead Agency	Permit/Approval
City of Foster City	<ul style="list-style-type: none"> ● Environmental Review ● General Development Plan Amendment/Rezoning ● Specific Development Plan/Use Permit ● Use Permit Modification (Amendments to Vintage Park Design Guidelines) ● Encroachment Permit ● Transportation Permit
Responsible Agencies	
Bay Area Air Quality Management District (BAAQMD)	<ul style="list-style-type: none"> ● Permits for on-site generators, boilers, and other utility equipment
California Department of Transportation (Caltrans)	<ul style="list-style-type: none"> ● Review of traffic circulation effects and consultation on potential traffic improvements that may affect State highway facilities, ramps, and intersections
California Regional Water Quality Control Board/San Mateo Countywide Water Pollution Prevention Program	<ul style="list-style-type: none"> ● Compliance with National Pollutant Discharge Elimination System (NPDES) Construction General Permit and Municipal Regional Permit
City/County Association of Governments	<ul style="list-style-type: none"> ● Review of potential effects on Routes of Regional Significance
San Mateo County Environmental Health Division	<ul style="list-style-type: none"> ● Review of on-site generators
San Mateo County Transportation Authority	<ul style="list-style-type: none"> ● Review of potential effect on public transit
San Mateo Consolidated Fire Department	<ul style="list-style-type: none"> ● Commercial Site Plan review ● Emergency Vehicle Access approval
San Mateo Union High School District	<ul style="list-style-type: none"> ● School District Certification of School Impact Fees
San Mateo-Foster City School District	<ul style="list-style-type: none"> ● School District Certification of School Impact Fees
City of San Mateo	<ul style="list-style-type: none"> ● Encroachment Permit for potential traffic control on Chess Drive ● Industrial Waste Discharge Permit
Recology	<ul style="list-style-type: none"> ● Approval of on-site trash/recyclables access

Source: LSA (2021).

In addition, development of the proposed project, if approved, would be subject to the City of Foster City’s standard Conditions of Approval (COA) for all Major Use Permits. Applicable COAs are identified in Chapter 3.0 of this Initial Study.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The Notice of Preparation (NOP) of an EIR and this Initial Study will be sent to tribal representatives that have requested notification of potential projects in this location. The consultation process and its conclusion will be further discussed in the EIR.

2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist in Chapter 3.0. These topics will be further evaluated in the EIR.

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

2.1 DETERMINATION

On the basis of this initial evaluation:

- 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Sofia Mangalam (Jul 20, 2021 09:29 PDT)

Signature

July 21, 2021

Date

This page intentionally left blank

3.0 CEQA ENVIRONMENTAL CHECKLIST

3.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. through d. (Potentially Significant Impact)

Development of the proposed project would alter the existing visual setting on and around the project site with demolition of the existing single-story structure and construction of a new four-story office building, as well as removal of existing vegetation. The proposed building would be visible from public vantage points primarily available from surrounding roadways and the immediately adjacent VPCA park. The proposed building could also result in an increase in shade and shadow in the vicinity of the project site, including potentially on the small park. Therefore, the criteria identified above for topics 3.1.a through 3.1.d will be evaluated in the EIR.

3.2 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 the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), 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 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 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 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 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 conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (No Impact)

The project site is currently developed with a vacant commercial building and is surrounded by urban uses. There are no agricultural resources located on or near the project site. The project site is classified as “Urban and Built-Up Land” by the State Department of Conservation.¹¹ Therefore, the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and would have no impact.

¹¹ California Department of Conservation. 2016. Division of Land Use Resource Protection. California Important Farmland Finder. Website: maps.conservation.ca.gov/dlrp/ciff (accessed June 2021).

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? (No Impact)

The project site is designated as Research/Office Park on the City's General Plan Land Use Map and is within the C-M/PD zoning district. The project site is not located within a locally-designated agricultural preserve, and therefore is not eligible for enrollment under a Williamson Act contract¹² and would have no impact.

c. Would the project 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))? (No Impact)

The project site is currently developed with a vacant commercial building. The project site is surrounded by commercial, light industrial, and recreation uses, and is within the C-M/PD zoning district. The proposed project would not conflict with the existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Therefore, the proposed project would have no impact.

d. Would the project result in the loss of forest land or conversion of forestland to non-forest use? (No Impact)

Refer to Section 3.2.c, above. The proposed project would not result in the loss of forest land or conversion of forest land to a non-forest use. While there are a number of existing trees on-site, and 53 existing trees would be removed from the project site, the highly urbanized project site does not constitute forest land. Therefore, the proposed project would have no impact.

e. Would the project 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 conversion of forest land to non-forest use? (No Impact)

Refer to Sections 3.2.a and 3.2.c, above. The proposed project would not involve any other changes to the existing environment which, due to their location or nature, could result in conversion of Farmland to a non-agricultural use, or conversion of forest land to a non-forest use. Therefore, the proposed project would have no impact.

¹² California Department of Conservation. 2019. Williamson Act Contracts. Website: www.conservation.ca.gov/dlrp/wa/Pages/contracts.aspx (accessed June 2021).

3.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. through d. (Potentially Significant Impact)

Development of the proposed project could increase pollutant concentrations within the City through increased vehicle trips and construction emissions. This increase could contribute to existing air pollution in the San Francisco Bay Area Air Basin and has the potential to exceed regional air emission thresholds established by the Bay Area Air Quality Management District (BAAQMD). Construction activities associated with project development, including building demolition, grading, and ground disturbance, could increase concentrations of particulate matter and could expose sensitive receptors to toxic air contaminants. In addition, the proposed project could result in the emission of objectionable odors as a result of construction-related activities and operation. Therefore, the criteria identified above for topics 3.3.a through 3.3.d will be evaluated in the EIR.

3.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

A reconnaissance-level biological resources survey of the project site was conducted by a qualified LSA biologist on June 9, 2021. The project site contains a vacant commercial building, surface parking lots, and landscaping with ornamental plants and ruderal (weedy) vegetation. Landscaping consists of primarily non-native trees and shrubs, including red iron bark eucalyptus (*Eucalyptus sideroxylon*), silver dollar gum (*E. polyanthemos*), Blackwood acacia (*Acacia melanoxylon*), Bailey acacia (*A. baileyana*), Lombardy poplar (*Populus nigra 'Italica'*), Brazilian pepper (*Schinus terebinthifolius*), Aleppo pine (*Pinus halepensis*), Monterey pine (*P. radiata*), Canary Island pine (*P. canariensis*), sweetgum (*Liquidambar styraciflua*), cajeput (*Melaleuca quinquenervia*), Callery pear (*Pyrus calleryana*), London plane (*Platanus x hispanica*), purple-leaf plum (*Prunus cerasifera 'Atropurpurea'*), crape myrtle (*Lagerstroemia indica*), oleander (*Nerium oleander*), and agapanthus (*Agapanthus* spp.). One native coast live oak (*Quercus agrifolia*) is growing near the northeastern

boundary of the site. Ruderal vegetation is present in the understory of the landscaped plants and include non-native plant species, such as panic veldtgrass (*Ehrharta erecta*), soft chess (*Bromus hordeaceus*), and Italian rye grass (*Festuca perennis*).

Wildlife species that likely occur at the project site include urban-adapted species that occur within parking lots and landscaping. Wildlife observed or detected during the field survey consist of American crow (*Corvus brachyrhynchos*), Eurasian collared-dove (*Streptopelia decaocto*), American robin (*Turdus migratorius*), Bewick's wren (*Thryomanes bewickii*), black phoebe (*Sayornis nigricans*), Nuttall's woodpecker (*Dryobates nuttallii*), house finch (*Haemorhous mexicanus*), California towhee (*Melospiza crissalis*), dark-eyed junco (*Junco hyemalis*), and eastern gray squirrel (*Sciurus carolinensis*) nests. Old squirrel nests were observed in some of the trees, but these nests are not protected. Except for the non-native Eurasian collared-dove, active nests of these or native birds are protected by the Migratory Bird Treaty Act and/or California Fish and Game Code. None of the observed wildlife species are considered special-status under CEQA.

A review of the California Department of Fish and Wildlife's California Natural Diversity Database¹³ resulted in several special-status species that are known to occur within 5 miles of the project site. For the purposes of this Initial Study, special-status species are defined as follows:

1. Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the federal Endangered Species Act (ESA);
2. Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the California Endangered Species Act (CESA);
3. Plant species that are on the California Rare Plant Rank Lists 1A, 1B, and 2;
4. Animal species that are designated as Species of Special Concern or Fully Protected by CDFW; or
5. Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA guidelines.

The project site does not provide suitable habitat for any special-status plant species due to prior disturbance at the project site and the resulting lack of native plant communities, such as wetlands, salt marsh, woodlands, and grasslands.

Out of the numerous special-status wildlife species that have been recorded within 5 miles of the site, two species, the white-tailed kite (*Elanus leucurus*) and pallid bat (*Antrozous pallidus*), have a low potential to occur. The remaining special-status wildlife species that are known to occur within 5 miles of the site would likely not occur due to the lack of suitable habitat, such as salt marsh, wetlands, streams, and grasslands. The white-tailed kite is a California Fully Protected species that could nest in the trees on the site. Although unlikely to nest due to the lack of foraging habitat (i.e., grasslands) at or near the project site, this species is known to nest in urban areas and residential

¹³ California Department of Fish and Wildlife. 2021. California Natural Diversity Database. June 8.

neighborhoods¹⁴ and could nest in the trees on or adjacent to the project site. Therefore, the proposed project could impact the special-status white-tailed kite and other nesting birds protected by the Migratory Bird Treaty Act and/or California Fish and Game Code, if present during construction of the project. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to the white-tailed kite and protected nesting birds to a less-than-significant level.

Mitigation Measure BIO-1: If possible, the project sponsor shall avoid construction activities during the bird nesting season (February 1 through August 31). If construction activities are scheduled during the nesting season, a qualified biologist shall conduct a pre-construction survey of all suitable nesting habitat (i.e., trees, shrubs, structures) within 250 feet of the project site (where accessible). The pre-construction survey shall be conducted no more than 14 days prior to the start of work. If the survey indicates the presence of nesting birds, protective buffer zones shall be established around the nests as follows: for raptor nests, the size of the buffer zone shall be a 250-foot radius centered on the nest; for other birds, the size of the buffer zone shall be a 50- to 100-foot radius centered on the nest. In some cases, these buffers may be increased or decreased depending on the bird species and the level of disturbance that will occur near the nest.

The pallid bat is a California Species of Special Concern that could roost in the trees on the site. No large cavities or hollows were observed in any of the trees during the reconnaissance-level survey, but these and other bat species could roost in the on-site trees. Although buildings can provide suitable roosting habitat for bats, the on-site vacant building appears to be in good condition and no visible openings, such as broken windows or openings within the eaves or roof of the building, were observed during the field survey. However, the proposed project could impact the special-status pallid bat and other roosting bats protected by CDFW, if they are present during construction, particularly during tree removal. Implementation of Mitigation Measure BIO-2 would reduce potential impacts to the pallid bat and other roosting bats to a less-than-significant level.

Mitigation Measure BIO-2: A qualified biologist shall conduct a pre-construction survey for roosting bats at all suitable bat roosting habitat (i.e., trees, the unoccupied building) within the project area within 14 days prior to the beginning of project-related activities. If active bat roosts are discovered or if evidence of recent prior occupation is established, a buffer shall be established around the roost site until the roost site is no longer active. Before any construction activities begin in the vicinity of the identified bat roosts on the project site, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the bats and their habitat, the specific measures that are being implemented to conserve the bat roosts for the current project, and

¹⁴ LSA personal observation.

the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. If an active bat roost is identified and would be impacted by the project, CDFW shall be contacted to determine the best methodology for removing the roost and to determine appropriate mitigation (if needed), which may include the construction of a new bat roost within the project area.

Mitigation Measures BIO-1 and BIO-2 are standard construction-period measures that are applicable to all construction projects that have the potential to impact nesting bird and bat species. These measures will be incorporated into the project's conditions of approval and will be identified and incorporated into the EIR and Mitigation Monitoring and Reporting Program (MMRP) that will be prepared.

- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (No Impact)*

The project site is occupied by a vacant building, surface parking lots, landscaping with ornamental plants, and ruderal vegetation and does not contain any riparian habitat or other sensitive natural communities. No natural plant communities are present at the project site. The adjacent park does not have any riparian habitat or other sensitive natural communities. Therefore, there would be no impact.

- c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (No Impact)*

The project site is occupied by a vacant building, surface parking lots, landscaping with ornamental plants, and ruderal vegetation and does not contain any State or federally protected wetlands. No ditches, drainage channels, or wetlands are present. Therefore, the proposed project would not result in the direct removal, filling, or hydrological interruption of any wetlands, and there would be no impact.

- d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? (Less Than Significant with Mitigation Incorporated)*

The project site is located in an urban area surrounded by development and does not provide a wildlife movement corridor, such as a stream channel or riparian corridor. Urban-adapted wildlife, such as raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), eastern gray squirrel, and birds, that may move through or along the edges of the project site would be able to continue to move through or around the site.

No native wildlife nursery sites, such as heron rookeries, are present. Nesting birds and roosting bats could occur at the project site; however, implementation of Mitigation Measures BIO-1 and BIO-2 would reduce potential impacts to nesting birds and roosting bats to a less-than-significant level.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (No Impact)

Of the existing 55 trees on the project site, 53 would be removed. Approximately 50 new trees would be planted throughout the project site. The Vintage Park Design Guidelines includes plant list with appropriate plantings for the Vintage Park neighborhood.¹⁵ Development projects that require a use permit are required to comply with the following COA for planting of new trees.

COA 8.12: At initial planting, all trees shall be a minimum of 15 gallons or larger and shall not be planted until they are inspected for size by the City. At least fifteen percent (15%) of the total number of trees approved as a part of the Landscape Plan shall be 24 inch or larger specimen trees to be planted along public rights-of-way or other locations as determined in the field by the Community Development Director. As and when trees are replaced they will be replaced by trees of the same species which shall be a minimum of 15 gallons or larger and shall not be planted until they are inspected for size by the City. Only specimen size trees shall replace specimen size trees.

Inspection of trees to be planted by the City would ensure the 53 trees that would be removed would be replaced by trees a minimum of 15 gallons in size. Therefore, the proposed project would not conflict with any policies or ordinances protecting biological resources, and there would be no impact.

Trees that would be preserved would be protected according to the tree preservation guidelines stated within the project arborist report.¹⁶ These guidelines would be incorporated into the proposed project's construction documents and consist of the following:

Design Recommendations

1. All plans affecting trees shall be reviewed by the Consulting Arborist with regard to tree impacts. These include, but are not limited to, demolition plans, grading and utility plans, landscape and irrigation plans.
2. For trees identified for preservation, designate a Tree Protection Zone (TPZ) in which no construction, grading and underground services including utilities, sub-drains, water or sewer will be located. The TPZ for all trees identified for preservation shall be defined at the limit of the dripline in all directions.

¹⁵ Foster City, City of. 2021. *Vintage Park Design Guidelines*. January 22.

¹⁶ HortScience/Bartlett Consulting. 2021. Draft Preliminary Arborist Report, 388 Vintage Park Dr., Foster City, CA. Prepared for Steelwave, San Francisco, CA. March.

3. Tree Preservation Guidelines, prepared by the Consulting Arborist, shall be included on all relevant plans.
4. No grading, excavation, construction or storage of materials shall occur within that zone.
5. No underground services including utilities, sub-drains, water or sewer shall be placed in the TPZ.
6. Irrigation systems shall be designed so that no trenching will occur within the Tree Protection Zone.
7. As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings and pavements on expansive soils near trees shall be designed to withstand differential displacement.
8. Maintain the existing irrigation system. If the existing irrigation system is not functional, install a temporary system (using soaker hoses or polyvinyl chloride (PVC) laid on the ground and covered with mulch) as soon as possible to supply the trees with water and help them recover and prepare them for impacts associated with the demolition and construction process.

Pre-Construction Treatments and Recommendations

1. The demolition contractor shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.
2. Where possible, cap and abandon all existing underground utilities within the TPZ in place. Removal of utility boxes by hand is acceptable but no trenching shall be performed within the TPZ in an effort to remove utilities, irrigation lines, etc.
3. Fence all trees to be retained to completely enclose the TPZ prior to demolition, grubbing or grading. Fences shall be 6-foot chain link or equivalent as approved by the Consulting Arborist. Fences shall remain until all grading, construction and landscaping is completed. Place weather-proof signs, 2 feet by 2 feet, on the fencing that read "TREE PROTECTION ZONE Keep Out" (e.g., one sign for each of the four compass points).
4. To protect trunks from incidental damage during demolition, wrap the trunks of the street trees adjacent to the construction entrance to a height of 8 feet with straw wattle and orange snow fencing to provide a visual cue and protection from incidental contact.
5. Prune trees to be preserved to clean the crown of dead branches 2 inches and larger in diameter and raise canopies as needed for construction activities. All pruning shall be completed by a State of California Licensed Tree Contractor (C61/D49). All pruning shall be completed by Certified Arborist or Certified Tree Worker in accordance with the Best Management Practices for Pruning (International Society of Arboriculture 2002) and adhere to the most recent editions of the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300). The Consulting Arborist shall provide pruning specifications prior to site demolition. Branches

extending into the work area that can remain following demolition shall be tied back and protected from damage.

6. Apply and maintain 4 to 6 inches of wood chip mulch within the TPZ.

Recommendations for Tree Protection During Construction

1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved shall be required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.
2. All contractors shall conduct operations in a manner that will prevent damage to trees to be preserved.
3. Any grading, construction, demolition or other work that is expected to encounter tree roots shall be monitored by the Consulting Arborist.
4. Tree protection fences shall remain until all site work has been completed. Fences shall not be relocated or removed without permission of the Consulting Arborist.
5. Construction trailers, traffic, and storage areas shall remain outside fenced areas at all times.
6. Prior to grading, pad preparation, excavation for foundations/footings/walls, trenching, trees may require root pruning outside the TPZ by cutting all roots cleanly to the depth of the excavation. Roots shall be cut by manually digging a trench and cutting exposed roots with a saw, with a vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root pruning equipment. The Consulting Arborist shall identify where root pruning is required and monitor all root pruning activities.
7. If damage should occur to any tree during construction, the tree damage shall be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
8. No excess soil, chemicals, debris, equipment, or other materials shall be dumped or stored within the TPZ.
9. Any additional tree pruning needed for clearance during construction shall be performed by a Certified Arborist and not by construction personnel.

Maintenance of Impacted Trees

Tree health and structural stability shall be monitored annually and the trees shall receive occasional pruning, fertilization, mulch, pest management, replanting and irrigation as needed.

Implementation of the above measures would ensure that trees to be retained on and in the immediate vicinity of the site would be protected during construction activities.

- f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (No Impact)*

The project site is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, the proposed project would not conflict with any such plan and there would be no impact.

3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? (Less-Than-Significant Impact)

For a cultural resource to be considered a historical resource (i.e., eligible for listing in the California Register of Historical Resources [CRHR]), it generally must be 50 years or older. Under CEQA, historical resources can include pre-contact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts. The existing building on the project site was built in the 1990s and has not been identified as a historic resource by the City.

To identify potential historical resources on or in the vicinity of the project site a records search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University in Rohnert Park, and appropriate background literature was reviewed. The results of the records search and literature review are summarized below.

On July 7, 2021, Jessika Akmenkalns, Researcher at the NWIC, conducted the CHRIS record search for the project site and a 0.25-mile radius of the project site. The record search results (NWIC File No. 20-2542) indicate that one previous cultural resources study has included the entire project site (a survey) and an additional seven previous cultural resources studies have included a portion of a 0.25-mile radius. The seven studies including a portion of the search radius consisted of six archaeological surveys and one archaeological monitoring project. As a result of previous cultural resources studies, no cultural resources have been recorded within the project site or a 0.25-mile radius.

A review of available historic-period maps indicate that the project site was historically surrounded by meandering water sources, which would have been utilized by pre-contact Native American occupants of the area. However, the Geotechnical Report¹⁷ prepared for the project states that the project site was located on the Bayward side of the historic shoreline and was overlain with fill sediments, and that these fill materials extend approximately 4 to 5.5 feet below the existing surface. Project-related excavation would extend no deeper than 18 inches for elevator pits and

¹⁷ Rockridge Geotechnical. 2021b. *Geotechnical Investigation and Ground Motion Analysis Report, Proposed Life Science Building, 388 Vintage Park Drive, Foster City, California*. April 13.

auger-cast piles would be installed to a depth of approximately 125 feet. Given the presence of fill material in all excavation areas (with the exception of the auger-cast piles, which are a type of localized disturbance providing limited potential to identify cultural resources), the likelihood of encountering intact historical archaeological deposits during project construction activities is low.

Although no archaeological deposits are recorded at the project site, pre-contact archaeological deposits have been unearthed in San Mateo County during construction activities. Should project excavation unearth intact archaeological deposits, a substantial adverse change to a historical resource would occur due to the partial or complete destruction of the resource. This destruction would undermine the integrity of the resource, such that it would no longer be eligible for listing in the California Register of Historical Resources. As such, project ground-disturbing activities could have a substantial adverse change on buried archaeological deposits that qualify as historical resources, as defined in CEQA Guidelines Section 15064.5, and could materially impair pre-contact archaeological deposits. Development projects that require a use permit are required to comply with the following COA.

COA 9.11: If deposits of prehistoric or historic archaeological materials are encountered during project activities, all work within 25 feet of the discovery shall be redirected and the Community Development Director immediately notified. A qualified archaeologist shall be contacted to assess the find, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Prehistoric materials can include flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite toolmaking debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone-milling equipment (e.g., mortars, pestles, handstones). Prehistoric archaeological sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal and other refuse.

Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results of the analysis, and provide recommendations for the treatment of the archaeological deposits discovered. The report shall be submitted to the project sponsor, the Foster City Community Development Department and the Northwest Information Center. Project personnel shall not collect or move any archaeological materials or human remains. Adverse effects to such deposits shall be avoided by project activities. If avoidance is not feasible (as determined by the City, in conjunction with the qualified archaeologist), the archaeological deposits shall be evaluated for their eligibility for listing in the California Register. If the deposits are not eligible, avoidance is not necessary. If the deposits are eligible, avoidance of project impacts on the deposit shall be the preferred mitigation. If adverse effects on the deposits cannot be avoided, such effects must be mitigated. Mitigation can include, but is not necessarily limited to: excavation of the deposit in accordance with a data recovery plan (see CEQA Guidelines Section 15126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future

research and/or display; preparation of a brochure for public distribution that discusses the significance of the archaeological deposit; an interpretive display of recovered archaeological material at a local school, museum, or library; and public lectures at local schools and/or historical societies on the findings and significance of the site and recovered archaeological materials. The City shall ensure that any mitigation involving excavation of the deposit is implemented prior to the resumption of actions that could adversely affect the deposit.

Work stoppage and review by a qualified archaeologist in the event of an archaeological discovery would ensure that: (1) if archaeological cultural resources are identified during excavation, these resources would be evaluated, documented, and studied in accordance with standard archaeological practice; and (2) archaeological deposits and human remains would be treated in accordance with appropriate State codes and regulations. As such, implementation of the above COA would ensure that the project's potential impacts to archaeological historical resources would be less than significant.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Less-Than-Significant Impact)

In accordance with CEQA Guidelines Section 15064.5(c), if the project would affect an archaeological deposit, the lead agency must first determine whether the deposit is a "historical resource" (see CEQA Guidelines Section 15064.5(a)). If the deposit is not a historical resource, the lead agency must determine if the deposit is a "unique archaeological resource."

As described above, background research was done to identify archaeological deposits and the potential for encountering such deposits, including those that qualify as archaeological resources under CEQA. This background research determined that there are no recorded archaeological resources on the project site, although there is a potential for encountering subsurface archaeological deposits during construction.

Based on the significance criteria identified above, the project would have a significant impact on the environment if ground-disturbing activities would cause a substantial adverse change in the significance of a historical or archaeological resource. A substantial adverse change in the significance of an archaeological resource would occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)). For the proposed project, the significance of a historical resource would be materially impaired if ground disturbance would alter in an adverse manner those physical characteristics of the resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources. The proposed project could affect previously unidentified archaeological deposits, thereby causing a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5. However, potential impacts would be less than significant with implementation of the City's standard COA as described in Section 3.3.b.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries? (Less-Than-Significant Impact)

No human remains have been identified at the project site. Native American skeletal remains are

often associated with archaeological deposits, which are frequently buried in this region beneath Holocene alluvial soils. If human remains are identified during project construction, Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code shall apply, as appropriate. Project ground-disturbing activities have the potential to unearth Native American human remains. The proposed project would be required to comply with the following COA to ensure that this impact would be less than significant.

COA 9.12: If human remains are encountered, work within 25 feet of the discovery shall be directed and the County Coroner and the Community Development Director immediately notified. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. The project sponsor shall also be notified. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The project sponsor shall comply with these recommendations. The report shall be submitted to the project sponsor, the Foster City Community Development Department, the MLD, and the Northwest Information Center.

3.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? (Less-Than-Significant Impact)

The proposed project would increase the demand for electricity, natural gas, and gasoline. The discussion and analysis provided below is based on data included in the California Emissions Estimator Model (CalEEMod) output, which is included in Appendix A.

Construction-Period Energy Use. The anticipated construction schedule assumes that the proposed project would be built over approximately 17 months. The proposed project would require demolition, grading, site preparation, building, paving, and architectural coating activities during construction.

Construction of the proposed project would require energy for the manufacture and transportation of building materials, preparation of the site for demolition and grading activities, and building construction. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. However, energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State’s available energy sources. In addition, according to the project sponsor, the proposed project’s LEED best practices would encourage sourcing local materials and reduced truck idling while at the project site. Therefore, construction energy impacts would be less than significant.

Operational Energy Use. Energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. Energy and natural gas consumption was estimated for the project using default energy intensities by land use type in CalEEMod. In addition, the proposed building would be constructed to current Title 24 standards, which was included in CalEEMod inputs. Electricity and natural gas usage estimates associated with the proposed project are shown in Table A. The project sponsor also intends to achieve LEED Silver standards or equivalent. Because the exact standards to be implemented are not known at this time, these standards were not included in CalEEMod; therefore, the analysis is conservative.

In addition, the proposed project would result in energy usage associated with gasoline to fuel project-related trips. Based on the CalEEMod analysis, the proposed project would result in

approximately 1,274,105 vehicle miles traveled (VMT) per year.¹⁸ The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 mpg in 1980 to 22.2 mpg in 2019.¹⁹ Therefore, using the average fuel economy estimates for 2019, the proposed project would result in the consumption of approximately 57,392 gallons of gasoline per year. Table B, below, shows the estimated potential increased electricity and natural gas demand associated with the proposed project.

Table B: Estimated Annual Energy Use of Proposed Project

Electricity Use (kWh per year)	Natural Gas Use (therms per year)	Gasoline (Gallons per year)
634,438	14,746	57,392

Source: Compiled by LSA (June 2021).

As shown in Table B, the estimated potential increased electricity demand associated with the proposed project is 634,438 kilowatt-hours (kWh) per year. In 2019, the year for which the most recent data is available, California consumed approximately 279,401 gigawatt-hours (GWh) or 279,401,879,875 kWh.²⁰ Of this total, San Mateo County consumed 4,325 GWh or 4,325,279,371 kWh.²¹ Therefore, electricity demand associated with the proposed project would only be approximately 0.01 percent of San Mateo County’s total electricity demand.²²

The estimated potential increased natural gas demand associated with the proposed project is 14,746 therms per year, as shown in Table B. In 2019, California consumed approximately 13,158 million therms or 13,158,207,489 therms, while San Mateo County consumed approximately 214 million therms or approximately 214,429,843 therms.²³ Therefore, natural gas demand associated with the proposed project would only be approximately 0.01 percent of San Mateo County’s total natural gas demand.

¹⁸ A Transportation Impact Analysis (TIA) will be prepared as part of the EIR. The TIA and EIR may include a refined estimate of VMT; however, any variation in estimated VMT would not affect the analysis or conclusions related to energy as presented in this section.

¹⁹ U.S. Department of Transportation. “Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles.” Website: www.bts.dot.gov/bts/bts/content/average-fuel-efficiency-us-light-duty-vehicles (accessed May 2021).

²⁰ California Energy Commission. 2021. Energy Consumption Data Management Service. Electricity Consumption by County. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed May 2021).

²¹ Ibid.

²² The electricity estimates provided in Table B were calculated assuming a 60,000 square foot office land use and 35,391 square foot parking garage space and therefore slightly underestimate the energy use of the proposed office land use by approximately 35,391 square feet and overestimate the energy use of the proposed garage space by approximately 6,912 square feet. However, the overall projected electricity demand would only slightly increase and would be less than 0.02 percent of San Mateo County’s total electricity demand; therefore, the impact would remain less than significant.

²³ California Energy Commission. 2021. Energy Consumption Data Management Service. Gas Consumption by County. Website: www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed May 2021).

In addition, the proposed project would result in energy usage associated with gasoline to fuel project-related trips. As shown above in Table A, vehicle trips associated with the proposed project would consume approximately 57,392 gallons of gasoline per year. In 2015, vehicles in California consumed approximately 15.1 billion gallons of gasoline.²⁴ Therefore, gasoline demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in California.

The proposed project would be constructed to current Title 24 standards, which would help to reduce energy and natural gas consumption. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. Construction and operation period impacts related to consumption of energy resources would be less than significant.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (Less-Than-Significant Impact)

In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission (ZE) vehicles and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The CEC approved the 2020 Integrated Energy Policy Report in March 2021.²⁵ The 2020 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The 2020 Integrated Energy Policy Report covers a broad range of topics, including implementation of Senate Bill 350, which includes new requirements for the California Public Utilities Commission, CARB, California Independent System Operator (ISO), utilities, and electrical corporations, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand

²⁴ California Energy Commission. 2017. California Gasoline Data, Facts, and Statistics. Website: www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics (accessed May 2021).

²⁵ California Energy Commission. 2019. Notice of Request for Public Comments on the Draft Scoping Order for the 2019 Integrated Energy Policy Report. Docket No. 19-IEPR-01.

forecast, renewable gas (in response to Senate Bill 1383), updates on California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's 2020 Integrated Energy Policy Report. Thus, as shown above, the project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and not result in any irreversible or irretrievable commitments of energy. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation and this impact would be less than significant.

3.7 GEOLOGY AND SOILS

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

- a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*
 - ii. Strong seismic ground shaking?*
 - iii. Seismic-related ground failure, including liquefaction?*
 - iv. Landslides? (Less-Than-Significant Impact)*

The project site is located within the Coast Ranges geomorphic province,²⁶ which includes numerous active faults identified by the California Geological Survey (CGS) under the Alquist-Priolo Earthquake Fault Zoning Act. CGS defines an active fault as one that has ruptured during the Holocene Epoch (i.e., the last 11,000 years). The Working Group on California Earthquake Probabilities and the U.S.

²⁶ A geomorphic province is a naturally defined geologic region that displays a distinct combination of features based on geology, faults, topography, and climate. Eleven geomorphic provinces are recognized in California.

Geological Survey (USGS) have predicted a 6.4 percent probability of a 6.7 magnitude (Mw, or Moment Magnitude)²⁷ or greater earthquake on the Northern San Andreas Fault between 2014 and 2044, a 14.3 percent chance on the Hayward Fault, and a total probability of 72 percent that an earthquake of that magnitude will occur on one of the regional San Francisco Bay Area faults during that time.²⁸ The nearest Alquist-Priolo Earthquake Fault Zone is the San Andreas Fault, located about 5 miles southwest of the project site.²⁹ Potential impacts associated with seismic activity including fault rupture, ground shaking, ground failure, liquefaction, and landslides are discussed below.

Fault Rupture. Surface fault rupture occurs when the ground surface is broken due to fault movement during an earthquake. Fault rupture is generally expected to occur along known active fault traces. Areas susceptible to fault rupture are delineated by the CGS Alquist-Priolo Earthquake Fault Zones map and require specific geological investigations prior to development to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-induced ground failure. The project site is not located within or adjacent to an Alquist-Priolo Earthquake Fault Zone³⁰ or an active or potentially active fault. Therefore, potential impacts related to surface fault rupture would be less than significant.

Ground Shaking. Seismic ground shaking generally refers to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The Geotechnical Investigation prepared for the proposed project identified strong to very strong ground shaking at the project site during a seismic event.³¹

The 2019 California Building Code (CBC) is based on the 2018 International Building Code and covers grading and other geotechnical issues, building specifications, and non-building structures, such as chimneys and tanks. The City of Foster City Municipal Code amends the most current State building codes, as indicated in Municipal Code Chapter 15.02. The City's Building Division is responsible for reviewing plans, issuing building permits, and conducting field inspections. The design of the project would be required to conform to the current CBC at the time of plan review, which would be the 2019 CBC.

The 2019 CBC requires that a site-specific geotechnical investigation be conducted and a geohazard report be prepared by a licensed professional for all proposed construction to evaluate geologic and seismic hazards, except for one-story, wood-frame and light-steel-frame buildings that are located outside of the Earthquake Fault Zones or Seismic Hazard Zones as shown in the CGS maps with less than or equal to 4,000 square feet in floor area. The purpose of a site-specific geotechnical

²⁷ Moment magnitude (MW) is now commonly used to characterize seismic events as opposed to Richter Magnitude. Moment magnitude is determined from the physical size (area) of the rupture of the fault plane, the amount of horizontal and/or vertical displacement along the fault plane, and the resistance to rupture of the rock type along the fault.

²⁸ United States Geological Survey. 2015. UCERF3: A New Earthquake Forecast for California's Complex Fault System, USGS Fact Sheet 2015-3009. March. Available online at: pubs.usgs.gov/fs/2015/3009/pdf/fs2015-3009.pdf (accessed June 2021).

²⁹ California Geological Survey. n.d. Earthquake Zones of Required Investigation, San Mateo Quadrangle. Earthquake Fault Zones released July 1, 1974. Seismic Hazard Zones released January 11, 2018.

³⁰ Ibid.

³¹ Rockridge Geotechnical. 2021b. op. cit.

investigation is to identify seismic and geologic conditions that may need to be addressed to ensure safety and adequate performance of improvements, such as ground shaking, liquefaction, differential settlement, and expansive soils. Based on the conditions of the site, the building code requires specific design parameters to ensure construction of buildings that will resist collapse during an earthquake. These design parameters do not protect buildings from all earthquake shaking hazards but are designed to reduce hazards to a manageable level. Requirements for the geotechnical investigation are presented in Chapter 16 “Structural Design” and Chapter 18 “Soils and Foundation” of the 2019 CBC.

The Geotechnical Investigation prepared for the proposed project is a final design-level geotechnical investigation, which is in accordance with the seismic design provisions presented in the 2019 CBC and in Chapter 21 of American Society of Civil Engineers (ASCE) Standard 7-16.³² Compliance with the 2019 CBC would ensure that the project would be designed and constructed in accordance with geotechnical recommendations to account for and withstand seismic and geologic hazards that could have adverse effects on the project, thereby minimizing exposure of people and structures to substantial risk of loss, injury, or death during a large regional earthquake. It is acknowledged that seismic hazards cannot be completely eliminated, even with site-specific geotechnical investigation/design and advanced building practices. However, the seismic design standards of the 2019 CBC are intended to prevent catastrophic building failure in the most severe earthquakes currently anticipated.

In addition, implementation of COA 2.2, as follows, would require a final design-level geotechnical investigation report (the Geotechnical Investigation prepared for this project) to be approved by the City’s Building Division. Adherence to the requirements and guidelines of the 2019 CBC and the final design-level geotechnical investigation as required by COA 2.2 would ensure that potential impacts related to seismic ground shaking would be less than significant.

COA 2.2: Three (3) sets of a site specific, design level, fault zone geotechnical report satisfactory to the Chief Building Official, including one electronic or pdf version, shall be submitted for review and approval to the Building Division and contain design recommendations for grading, footings, retaining walls, and provisions for anticipated differential settlement for each construction site within the project area. Specifically:

- Each investigation shall include an analysis of expected ground motions at the site identified faults. The analysis shall be in accordance with applicable City ordinances and policies, and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from identified faults. The analysis presented in the geotechnical investigation report shall provide recommendations to minimize seismic damage to structures from total and differential settlements and to protect steel and concrete (and any other material that may be placed in the subsurface) from long-term deterioration caused by contact with corrosive on-site soils. All design measures, recommendations, design criteria, and specifications set forth in the final geotechnical investigation report shall be implemented.

³² Ibid.

- The investigations shall determine final design parameters for the walls, foundations, foundation slabs, surrounding related improvements, and infrastructure (utilities, roadways, parking lots and sidewalks).
- The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, shall be included in the final design, as approved by the City of Foster City.
- The geotechnical report shall include a map prepared by a land surveyor or civil engineer that shows all field work and location of the "No Build" zone. The map shall include a statement that the locations and limitations of the geologic features are accurate representations of said features as they exist on the ground, were placed on this map by the surveyor, the civil engineer or under their supervision, and are accurate to the best of their knowledge.
- The geotechnical report for the project shall include evaluation of fixtures, furnishings, and fasteners with the intent of minimizing collateral injuries to building occupants from falling fixtures or furnishings during the course of a violent seismic event. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the projects design phase, shall be incorporated in the project.
- Final seismic considerations for the site shall be submitted to and approved by the Building Division prior to commencement of the project.
- If deemed necessary by the Chief Building Official, a peer review may be required for the geotechnical report. Personnel reviewing the geologic report shall approve the report, reject it, or withhold approval pending the submission by the sponsor or subdivider of further geologic and engineering studies to more adequately define active fault traces.
- A licensed geotechnical engineer or their representatives shall be retained to provide geotechnical observation and testing during all earthwork and foundation construction activities. The geotechnical engineer shall be allowed to evaluate any conditions differing from those encountered during the geotechnical investigation and shall provide supplemental recommendations, as necessary. At the end of construction, the geotechnical engineer shall provide a letter regarding contractor compliance with project plans and specifications and with the recommendations of the final geotechnical investigation report and any supplemental recommendations issued during construction. The letter shall be submitted for review to the Building Division.
- The final geotechnical investigation report shall provide recommendations to minimize the potential damage to structures from total and differential settlement and to protect steel and concrete (and any other material that may be placed in the subsurface) from long-term deterioration caused by contact with corrosive on-site soils. All design measures, recommendations, design criteria, and specifications set forth in the final geotechnical investigation report shall be implemented.

Seismic-Related Ground Failure and Liquefaction. Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Because saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths.

Lateral spreading is a form of horizontal displacement of soil toward an open channel or other “free” face, such as an excavation boundary or a creek bank. In a lateral spread failure, a layer of ground at the surface is carried on an underlying layer of liquefied material over a nearly flat surface toward a free face. The lateral spreading hazard tends to mirror the liquefaction hazard for a site (when a free face is present).

The project site is located within a liquefaction hazard zone as designated on a map prepared by the CGS. The Geotechnical Investigation included a liquefaction analysis to evaluate the potential for earthquake-induced liquefaction of the soils at the site. Based on the results of the liquefaction analysis, the Geotechnical Investigation concluded that the potential for liquefaction, liquefaction-induced settlement, and ground failures associated with liquefaction, such as lateral spreading, during a Maximum Considered Earthquake is low.

Cyclic densification (also referred to as differential compaction) of non-saturated sand (sand above the groundwater table) can occur during an earthquake, resulting in settlement of the ground surface and overlying improvements. The Geotechnical Investigation concluded that there would be no impact related to cyclic densification of the soil above the groundwater table due to its cohesion. Therefore, the potential impacts related to seismic-related ground failure would be less than significant.

Landslides. Slope failure can occur as either rapid movement of large masses of soil (landslide) or slow, continuous movement (creep) on slopes of varying steepness. Areas susceptible to landslides are characterized by steep slopes and downslope creep of surface materials. The project site, as well as surrounding areas, are relatively flat, and therefore are not subject to landslides or other slope stability hazards. In addition, the project site is not located within a landslide hazard zone as designated on a map prepared by the CGS.³³ Therefore, no impacts related to landslides or other slope stability hazards would occur.

b. Would the project result in substantial soil erosion or the loss of topsoil? (Less-Than-Significant Impact)

Soil erosion, which is discussed in detail in Section 3.10, Hydrology and Water Quality, could occur during project construction. As described in Section 3.10, Hydrology and Water Quality, compliance with the State Water Resources Control Board’s Construction General Permit, including preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), would ensure that the project would result in a less than significant impact related to erosion or loss of top soil during construction of the project. During operation of the proposed project, the project site would be

³³ California Geological Survey. n.d., op. cit.

covered with buildings, pavement surfaces, and landscaping, which would minimize post-development erosion. Therefore, the potential impact related to substantial erosion or loss of topsoil would be less than significant.

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Less-Than-Significant Impact)

Subsidence or Collapse. Subsidence or collapse can result from the removal of subsurface water resulting in either catastrophic or gradual depression of the surface elevation of the project site. According to the Geotechnical Investigation, shallow groundwater is anticipated at the project site and a design high groundwater level of 5 feet below ground surface should be used. As a result, temporary dewatering from excavations could be necessary during construction. The temporary dewatering of excavations (if needed), which is the only removal of subsurface water associated with the project, would have no impact related to significant ground subsidence or collapse.

Liquefaction or Lateral Spreading. As discussed above, the Geotechnical Investigation concluded that the potential for liquefaction, liquefaction-induced settlement, and ground failures associated with liquefaction, such as lateral spreading, is low during a Maximum Considered Earthquake. Therefore, impacts related to liquefaction and lateral spreading would be less than significant.

Landslide. As discussed above, no impacts related to landslides or other slope stability hazards would occur.

Settlement. According to the Geotechnical Investigation, the proposed building would be underlain by weak, compressible Bay Mud that extend to depths of about 55 to 60 feet below ground surface.³⁴ Shallow foundations, such as spread footings or a mat, bearing on these materials would experience erratic and excessive settlement to consolidation of the Bay Mud under the proposed building. Therefore, shallow foundations are not feasible for the proposed building. As a result, the Geotechnical Investigation recommended driven 14-inch-square prestressed, precast concrete piles or 16-inch diameter auger cast-in-place piles as the pile foundations to support the proposed building.³⁵ The project sponsor is proposing to implement displacement auger cast piles or vibrated-in H steel piles and pile driving would not occur.³⁶

Implementation of COA 2.2 would require a final design-level geotechnical investigation report (the Geotechnical Investigation prepared for this project) to be approved by the City's Building Division. Adherence to the requirements in the final design-level geotechnical investigation as required by COA 2.2 would ensure that potential impacts related to unstable soils would be less than significant.

³⁴ Ibid.

³⁵ Rockridge Geotechnical. 2021b, op. cit.

³⁶ Ibid.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? (Less-Than-Significant Impact)

Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume.

Plasticity indexes greater than 15 usually indicate a swelling problem may exist, and the percent swell generally increase with the plasticity indexes.³⁷ If any import of soils is required, the Geotechnical Investigation requires the fill to have a plasticity index lower than 12 and to be approved by the Geotechnical Engineer.³⁸ Therefore, potential impacts related to expansive soils would be less than significant.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? (No Impact)

The project would not involve the use of septic tanks or alternative waste water disposal systems; therefore, no impact would occur.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Less-Than-Significant Impact)

The project site is underlain by artificial fill and Bay Mud.³⁹ The artificial fill units underneath the project site are not considered paleontologically sensitive. The results of a search of identified paleontological localities collections database maintained by the University of California Museum of Paleontology did not identify any paleontological finds in Bay Mud near the project site.⁴⁰ While it is possible that the Bay Mud could preserve a variety of marine invertebrate fossils (mollusks, clams, foraminifera, microorganisms, etc.), such fossils exist in other Bay Mud deposits all around the Bay Area and would not be considered significant or unique. Therefore, the Bay Mud beneath the project site is considered to have low paleontological sensitivity.

The Geotechnical Investigation recommended deep foundations that extend below the Bay Mud (which extends to depths of about 50 to 60 feet below the ground surface) and into the stiffer alluvial deposits.⁴¹ The age and sensitivity of the underlying alluvial deposits are not known for

³⁷ Federal Highway Administration. 1977. An evaluation of expedient methodology for identification of potentially expansive soils. Report No. FHWA-RD-77-94. June.

³⁸ Rockridge Geotechnical. 2021b, op. cit.

³⁹ Ibid.

⁴⁰ University of California Museum of Paleontology. 2021. Collections Database, Locality Search. Website: ucmpdb.berkeley.edu/loc.html (accessed July 2021).

⁴¹ Rockridge Geotechnical. 2021b, op. cit.

certain. However, in much of the Bay Area, the Bay Mud is underlain by Pleistocene alluvium⁴² and may contain fossils. Review of Pleistocene age paleontological localities in a collections database maintained by the University of California Museum of Paleontology identified fossil plants, vertebrates, and invertebrates with locality names that are not in the vicinity of the project site. However, the review also identified some invertebrates and microfossils that do not have a specified locality name and, therefore, could be located in the project vicinity.⁴³ Therefore, the stiffer underlying alluvial deposits could be paleontologically sensitive. However, the project would not involve substantial excavation that would disturb the underlying alluvial deposits (i.e., only foundation piles would extend into this unit). Since the dominant geologic units at the project site that would be disturbed by construction (artificial fill and Bay Mud) are not considered paleontologically sensitive, the potential impacts on paleontological resources would be less than significant. Nevertheless, development projects that require a use permit are required to comply with the following COA, to be implemented in the event that paleontological resources are encountered during ground disturbing activities. Implementation of this COA would further ensure that this impact would be less than significant.

COA 2.2: If paleontological resources are discovered during project activities, all work within 25 feet of the discovery shall be redirected and the Community Development Director immediately notified. A qualified paleontologist shall be contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Paleontological resources include fossil plants and animals, and evidence of past life such as trace fossils and tracks. Ancient marine sediments may contain invertebrate fossils such as snails, clam and oyster shells, sponges, and protozoa; and vertebrate fossils such as fish, whale, and sea lion bones. Fossil vertebrate land animals may include bones of reptiles, birds, and mammals. Paleontological resources also include plant imprints, petrified wood, and animal tracks.

Upon completion of the assessment, the paleontologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the paleontological resources discovered. This report shall be submitted to the project sponsor, the Foster City Community Development Department, and the paleontological curation facility.

Adverse effects to paleontological resources shall be avoided by project activities. If avoidance is not feasible (as determined by the City, in conjunction with the qualified paleontologist), the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, adverse effects on the resources shall be avoided, or such effects shall be mitigated. Mitigation can include, but is not necessarily limited to: excavation of paleontological resources using standard paleontological field methods and procedures; laboratory and technical analyses of recovered materials; production of a report detailing the methods, findings, and significance of recovered fossils; curation of paleontological materials at an appropriate facility (e.g., the University of California

⁴² Helley, E.J. and K.R. LaJoie. 1979. Flatland deposits of the San Francisco Bay Region, California-their geology and engineering properties, and their importance to comprehensive planning. USGS Professional Paper 943.

⁴³ University of California Museum of Paleontology. 2021, op. cit.

Museum of Paleontology) for future research and/or display; an interpretive display of recovered fossils at a local school, museum, or library; and public lectures at local schools on the findings and significance of the site and recovered fossils. The City shall ensure that any mitigation involving excavation of the resource is implemented prior to project construction or actions that could adversely affect the resource.

3.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. through b. (Potentially Significant Impact)

Construction and operation of the proposed project would result in the consumption of fuel and energy resulting in the emission of greenhouse gasses. Typically, an individual project does not generate sufficient greenhouse gas emissions to influence global climate change sufficiently on its own; therefore, the issue of global climate change is cumulative in nature. Implementation of the project, through construction and operational activities, would generate greenhouse gas emissions that could cumulatively contribute to global climate change and could conflict with the City’s Climate Action Plan. Therefore, the criteria identified above for topics 3.8.a through 3.8.b will be evaluated in the EIR.

3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. through g. (Potentially Significant Impact)

The proposed project would consist of the construction of an R&D building that would include both laboratory and office uses. This proposed use could involve the acceptance, movement, storage, use, disposal, and off-site transportation of potentially hazardous materials. Additionally, the proposed project would include an emergency generator, which would require the transport and storage of diesel fuel. Therefore, the criteria identified above for topics 3.9.a through 3.9.g will be evaluated in the EIR.

3.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? (Less-Than-Significant Impact)

Regional Drainage. The existing project site, which is located within the Seal Slough Watershed, is relatively flat and about 80 percent of the site is covered by impervious surfaces (parking lot, sidewalk, and building roof). The existing stormwater from the project site either infiltrates through the surface soils within the landscaped areas of the project site, or runs off the impervious surfaces into the adjacent streets where it collects in the City’s storm drainage system and discharges into the Foster City Lagoon system.⁴⁴ Stormwater that enters Foster City Lagoon flows by gravity to, or is pumped into, the Bay.⁴⁵

Surface Water and Groundwater Quality. The quality of surface water and groundwater in the vicinity of the project site is affected by past and current land uses (both at the site and within the watershed) and by the composition of geologic materials in the vicinity. The State Water Resources

⁴⁴ Oakland Museum of California. n.d. Seal Slough Watershed. Website: explore.museumca.org/creeks/1510-RescSeal.html (accessed June 2021).

⁴⁵ Foster City, City of. 2016. *Foster City General Plan*. February 1.

Control Board (State Water Board) and its nine regional water boards regulate water quality of surface water and groundwater bodies throughout California. In the Bay Area, including the project vicinity, the San Francisco Bay Regional Water Quality Control Board is responsible for implementing the Water Quality Control Plan (Basin Plan).⁴⁶ The Basin Plan establishes beneficial water uses for waterways and water bodies within the region and is a master policy document for managing water quality in the region.

Foster City Lagoon is listed in the Basin Plan as providing the beneficial uses of estuarine habitat, wildlife habitat, water contact recreation, and noncontact water recreation. The Lower San Francisco Bay is listed as providing the beneficial uses of industrial service supply, commercial and sport fishing, shellfish harvesting, estuarine habitat, fish migration, preservation of rare and endangered species, fish spawning, wildlife habitat, water contact and noncontact recreation, and navigation.⁴⁷

Under Section 303 (d) of the federal Clean Water Act (CWA), states must present the U.S. Environmental Protection Agency (EPA) with a list of “impaired water bodies,” defined as those water bodies that do not meet water quality standards, which in some cases results in the development of a total maximum daily load (TMDL) for the water body. On a broad level, the TMDL process leads to a “pollution budget” designed to restore the health of a polluted body of water. The TMDL process includes a quantitative assessment of the sources of pollution contributing to a violation of the water quality standards and identifies the pollutant load reductions or control actions needed to restore and protect the beneficial uses of the impaired waterbody. Foster City Lagoon is not listed as an impaired water body. Lower San Francisco Bay has been listed as an impaired water body due to impacts from chlordane, dichlorodiphenyltrichloroethane [DDT], dieldrin, dioxin compounds, furan compounds, invasive species, mercury, polychlorinated biphenyls (PCBs), dioxin-like PCBs, and trash. TMDLs have been established for mercury and PCBs in Lower San Francisco Bay.⁴⁸

The project site is in the Santa Clara Valley Groundwater Basin, San Mateo Plain Subbasin. The San Mateo Plain Subbasin is listed in the Basin Plan as providing existing beneficial uses of municipal and domestic water supply, industrial process water supply, and industrial service water supply, and providing potential beneficial uses of agricultural water supply.⁴⁹

National Pollutant Discharge Elimination System. Under Section 402 of the CWA, the discharge of pollutants through a point source into waters of the United States is prohibited unless the discharge complies with a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES program regulates the discharge of pollutants from municipal and industrial wastewater treatment plants and sewer collection systems, as well as stormwater discharges from industrial facilities,

⁴⁶ San Francisco Bay Regional Water Quality Control Board. 2019. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*. Incorporating all amendments as of November 5.

⁴⁷ Ibid.

⁴⁸ State Water Board. 2017. *Final 2014 and 2016 California Integrated Report (Clean Water Act Section 303(d) List/305(b) Report)*. Website: www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16state_ir_reports/category5_report.shtml (accessed June 2021).

⁴⁹ San Francisco Bay Regional Water Quality Control Board. 2019, op. cit.

municipalities, and construction sites. In California, implementation and enforcement of the NPDES program is conducted through the State Water Board and the nine regional water boards. The regional water boards set standard conditions for each permittee in their region, which includes effluent limitations and monitoring programs. NPDES requirements that would apply to both the construction-phase and the operation phase of the project are described below.

Construction Stormwater Runoff. The proposed project would involve construction activities that would disturb over 1 acre of land and therefore would be required to comply with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002 (Construction General Permit).⁵⁰

To obtain coverage under the Construction General Permit, the project sponsor must provide, via electronic submittal, a Notice of Intent (NOI), a Stormwater Pollution Prevention Plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Activities subject to the Construction General Permit include clearing, grading, and ground disturbances such as grubbing and excavation. Construction General Permit activities are regulated at the local level by the San Francisco Bay Regional Water Quality Control Board.

The Construction General Permit uses a risk-based permitting approach and mandates certain requirements based on the project risk level (i.e., Level 1, Level 2, or Level 3). The project risk level is based on the risk of sediment discharge and the receiving water risk. The sediment discharge risk depends on the project location and season (e.g., wet-weather versus dry-weather activities). The receiving water risk depends on whether the project would discharge to a sediment-sensitive water body. The project risk level would be determined by the project sponsor when the NOI is filed (and when further details on the timing of construction activity are known).

The Construction General Permit performance standard calls for dischargers to minimize or prevent pollutants in stormwater discharges (as well as authorized non-stormwater discharges) through the use of controls, structures, and best management practices (BMPs) that utilize Best Available Technology for treatment of toxic and nonconventional pollutants and Best Conventional Technology for treatment of conventional pollutants. A SWPPP must be prepared by a Qualified SWPPP Developer that meets the certification requirements in the Construction General Permit. The purposes of the SWPPP are to (1) help identify the sources of sediment and other pollutants that could affect the quality of stormwater discharges; and (2) describe and ensure implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges resulting from construction activity. The operation of BMPs must be overseen by a Qualified SWPPP Practitioner who meets the requirements outlined in the Construction General Permit.

The SWPPP must include a construction site monitoring program. Depending on the project risk level, the monitoring program could include visual observations of site discharges, water quality

⁵⁰ State Water Resources Control Board Division of Water Quality. 2009. Construction General Permit Fact Sheet. 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ.

monitoring of site discharges (pH, turbidity, and non-visible pollutants, if applicable), and receiving water monitoring (pH, turbidity, suspended sediment concentration, and bioassessment).

Note that the City is part of the San Mateo Countywide Stormwater Pollution Prevention Program, which provides guidance and assistance to municipalities in San Mateo County to help them comply with requirements of the Construction General Permit. Additionally, the proposed project would be required to comply with the following COAs to ensure that this impact would be less than significant.

COA 2.4: Prior to issuance of a building permit, the Construction Best Management Practices (BMPs) from the San Mateo Countywide Stormwater Pollution Prevention Program shall be included as notes on the building permit drawings.

COA 2.6: Prior to issuance of a building permit, any development involving one or more acres of total land area must obtain a General Permit from the State Water Resources Control Board. This permit requires the owner/developer to do the following:

- Submit a Notice of Intent (NOI) to the State Water Resources Control Board prior to commencement of construction activity;
- Copies of the NOI and the SWPPP must be submitted to the Engineering Division along with proof of compliance.

COA 2.8: The sponsor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential adverse impacts to surface water quality during the construction period. The SWPPP shall be prepared by a Qualified SWPPP Practitioner (QSP). The SWPPP shall include the minimum BMPs required for the identified Risk level. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook-Construction. The SWPPP shall be designed to address the following objectives:

- All pollutants and their sources, including sources of sediment associated with construction activity are controlled;
- Where not otherwise required to be under a Regional Water Board permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
- Site Best Management Practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology and Best Conventional Technology (BAT/BCT) standard; and
- Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

- BMPs shall be designed to mitigate construction-related pollutants and at a minimum, include the following:
 - Practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with stormwater. The SWPPP shall specify properly-designed centralized storage areas that keep these materials out of the rain.
 - Reduce erosion of exposed soil which may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. The potential for erosion is generally increased if grading is performed during the rainy season because disturbed soil can be exposed to rainfall and storm runoff.
 - If grading must be conducted during the rainy season, the primary BMPs selected shall focus on erosion control (i.e. keeping sediment on the site). End-of-pipe sediment control measures (e.g. basins and traps) shall be used only as secondary measures. Ingress and egress from the construction site shall be carefully controlled to minimize off-site tracking of sediment. Vehicle and equipment wash-down facilities shall be designed to be accessible and functional during both dry and wet conditions.
- The SWPPP shall specify a monitoring program to be implemented by the construction site supervisor, and shall include both dry and wet weather inspections. In addition, in accordance with State Water Resources Control Board requirements, monitoring shall be required during the construction period for pollutants that may be present in the runoff that are "not visually detectable in runoff."
- To educate on-site personnel and maintain awareness of the importance of stormwater quality protection, site supervisors shall conduct regular tailgate meetings to discuss pollution prevention. The frequency of the meetings and required personnel attendance list shall be specified in the SWPPP.
- A QSP shall be responsible for implementing BMPs at the site. The QSP shall also be responsible for performing all required monitoring, and BMP inspection, maintenance and repair activities. The developer shall retain an independent monitor to conduct weekly inspections and provide written monthly reports to the Engineering Division to ensure compliance with the SWPPP. Water Board personnel, who may make unannounced site inspections, are empowered to levy considerable fines if it is determined that the SWPPP has not been properly prepared and implemented.
- The SWPPP shall be prepared to the satisfaction of the Engineering Division.

COA 2.17: Prior to commencement of any site work or placement of any construction trailers, the sponsor shall submit a Site Logistics Plan showing proposed haul routes, placement of the construction trailers (if any) and areas for materials/equipment materials/equipment delivery,

materials/equipment storage, waste collection and maintenance/fueling of vehicles/equipment. The Site Logistics Plan shall be subject to approval by the Community Development Director.

- The Site Logistics Plan designated storage areas for material delivery, storage, and waste collection shall be as far away from catch basins, gutters, drainage courses, and water bodies as possible. All hazardous materials and wastes used or generated during project site development activities shall be labeled and stored in accordance with applicable local, state, and federal regulations. In addition, an accurate up-to-date inventory, including Material Safety Data Sheets, shall be maintained on-site to assist emergency response personnel in the event of a hazardous materials incident.
- The Site Logistics Plan designated area for all maintenance and fueling of vehicles and equipment shall be bermed or over a drip pan that will not allow run-off of spills. Vehicles and equipment shall be regularly checked and have leaks repaired promptly at an off-site location. Secondary containment shall be used to catch leaks or spills any time that vehicle or equipment fluids are dispensed, changed, or poured.
- The Site Logistics Plan shall locate equipment staging in areas that will create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.

Implementation of COA 2.4 requires the use of construction BMPs from the San Mateo Countywide Stormwater Pollution Prevention Program to be included as notes on the building permit prior to issuance of a building permit. Implementation of COA 2.6 requires the project sponsor to submit evidence of compliance with Construction General Permit to the City's Engineering Division. Implementation of COA 2.8 requires the SWPPP to include BMPs consistent with the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook-Construction. Implementation of COA 2.17 requires storage areas for material delivery, storage, and waste collection as far away from catch basins, gutters, drainage courses, and water bodies as possible, and requires labeling and storing all hazardous materials and wastes in accordance with applicable local, State, and federal regulations.

Compliance with the requirements of the Construction General Permit and with the City's COAs would ensure that water quality impacts due to discharge of construction-related stormwater runoff would be less than significant.

Construction Dewatering. According to the Geotechnical Investigation, shallow groundwater is anticipated at the project site and a design high groundwater level of 5 feet below ground surface should be used.⁵¹ As a result, temporary dewatering from excavations could be necessary during construction. Dewatering effluent may have high turbidity. Turbid/contaminated groundwater could cause degradation of the receiving water quality if discharged directly to storm drains without treatment. As stated in the Construction General Permit, non-stormwater discharges to receiving waters or the storm drain system have the potential to negatively impact water quality.

⁵¹ Rockridge Geotechnical. 2021b, op. cit.

The discharge of dewatering effluent would be subject to permits from the Estero Municipal Improvement District or the San Francisco Bay Regional Water Quality Control Board, depending on whether the dewatering effluent is discharged to the sanitary sewer or stormwater system, respectively. Any discharge or activity which may result in pollutants entering the City's stormwater system would also be required to comply with the City's Green Infrastructure Plan⁵² as codified by Foster City Municipal Code Section 13.12.110.B. Under existing State law, it is illegal to allow unpermitted non-stormwater discharges to receiving waters. The discharger must implement measures to control all non-stormwater discharges during construction, and from dewatering activities associated with construction. Discharging any pollutant-laden water that would cause or contribute to an exceedance of water quality standards is prohibited.⁵³

In order to discharge the potentially contaminated dewatering effluent generated during construction activities on the project site to the storm drains (receiving water), the discharger could potentially prepare a Report of Waste Discharge, and if approved by the San Francisco Bay Regional Water Quality Control Board, be issued site-specific Waste Discharge Requirements under the NPDES regulations. Site-specific Waste Discharge Requirements contain rigorous monitoring requirements and performance standards that, when implemented, ensure that receiving water quality is not substantially degraded.

If it is determined that the water is not suitable for discharge to the storm drain (receiving water) and it is not possible to obtain Waste Discharge Requirements, dewatering effluent may be discharged to the EMID sanitary sewer system if special discharge criteria are met. These include, but are not limited to, application of treatment technologies or best management practices that will result in achieving compliance with the wastewater discharge limits. Discharges to EMID's facilities must occur under a Special Discharge Permit. EMID manages the water it accepts into its facilities so that it can ensure proper treatment of wastewater at the treatment facility prior to discharge.

If it is infeasible to acquire site-specific Waste Discharge Requirements or meet EMID Special Discharge Permit requirements, the construction contractor would be required to transport the dewatering effluent off-site for treatment and disposal.

Compliance with local and NPDES regulatory requirements governing non-stormwater discharges to the sanitary sewer system and stormwater system/receiving waters, respectively, would ensure that water quality impacts related to discharges of construction dewatering effluent would be less than significant.

Operation Stormwater Runoff. Because the proposed project would replace over 10,000 square feet of existing impervious surface area, the project would be required to comply with Provision C.3 of the NPDES Municipal Regional Permit (MRP). The MRP is overseen by the San Francisco Bay Regional Water Quality Control Board.

Provision C.3 requires regulated projects to implement Low Impact Development (LID) source control, site design, and stormwater treatment. LID employs principles such as preserving and

⁵² Foster City, City of. 2019. *Green Infrastructure Plan*. August.

⁵³ State Water Resources Control Board Division of Water Quality. 2009, op. cit.

recreating natural landscape features and minimizing impervious surfaces to create functional and appealing site drainage that treats stormwater as a resource, rather than a waste product. Practices used to adhere to these LID principles include measures such as rain barrels and cisterns, green roofs, permeable pavement, preserving undeveloped open space, and biotreatment through rain gardens, bioretention units, bioswales, and flow-through planter/tree boxes. The project would involve a bioretention area at the northeastern corner of the project site and flow-through planters on the east side and south side of the proposed building.

MRP Provision C.3.g pertains to hydromodification management and contains the following requirements: (1) stormwater discharges shall not cause an increase in the erosion potential of the receiving stream over the existing condition; and (2) increases in runoff flow and volume shall be managed such that post-project runoff does not exceed estimated pre-project rates and durations, where such increased flow and/or volume is likely to cause increased potential for erosion of creek beds and banks, silt pollutant generation, or other adverse impacts on beneficial uses due to increased erosive force. The project site is not susceptible to hydromodification as the project site is in a low-gradient area.

The City is part of the San Mateo Countywide Stormwater Pollution Prevention Program, which provides guidance and assistance to municipalities in San Mateo County to help them comply with requirements of the MRP. Additionally, the proposed project would be required to comply with the following COAs to ensure that this impact would be less than significant.

COA 2.7: Prior to issuance of a building permit, the plans shall demonstrate compliance with the San Mateo Countywide Water Pollution Prevention Program, (see www.flowstobay.org including, but not limited to, submittal of checklists related to impervious surface and stormwater:

- C.3 and C.6 Checklist
- Project sponsor checklist for NPDES Permit Requirements
- Stormwater Control Plan: Any improvements identified in the SWCP shall be constructed prior to first occupancy to the satisfaction of the Engineering Division.

COA 5.9.3: The sponsor shall fully comply with the C.3 provisions of the Municipal Regional Stormwater NPDES Permit (MRP). Responsibilities include, but are not limited to, designing Best Management Practices (BMPs) into the project features and operation to reduce potential impacts to surface water quality associated with operation of the project. These features shall be included in the design-level drainage plan and final development drawings. Specifically, the final design shall include measures designed to mitigate potential water quality degradation of runoff from all portions of the completed development.

- All Stormwater control measures outlined in the current San Mateo Countywide Water Pollution Prevention Program's C.3 Stormwater Technical Guidance manual shall be incorporated into the project design. Low Impact Development features, including rainwater harvesting and reuse, and passive, low-maintenance BMPs (e.g., grassy swales, porous

pavements) are required under the MRP. Higher-maintenance BMP's may only be used if the development of at-grade treatment systems is not possible, or would not adequately treat runoff. Funding for long-term maintenance for all BMPs must be specified (as the City will not assume maintenance responsibilities for these features). The sponsor shall establish a self-perpetuating drainage system maintenance program for the life of the project that includes annual inspections of any stormwater detention devices and drainage inlets. Any accumulation of sediment or other debris would need to be promptly removed. In addition, an annual report documenting the inspection and any remedial action conducted shall be submitted to the Public Works Development for review and approval.

- The drainage plan shall be prepared to the satisfaction of the Engineering Division.

COA 8.13: The Developer shall submit a letter signed and stamped by the licensed landscape architect verifying that the plants that have been selected for the bioretention area/swale are drought tolerant, inundation tolerant, and require minimal maintenance consistent with the C.3/C.6 Checklist, as provided in Appendix A of the San Mateo County Wide Water Pollution Prevention Program's C.3 Stormwater Technical Guidance Handbook at www.flowstobay.org.

COA 10.9: Prior to final building inspection, the property owner shall submit a Maintenance Agreement for Stormwater Treatment Measures and Hydromodification Management Controls, including a Maintenance Plan pertinent to the type(s) of measures included in the project, pursuant to the San Mateo Countywide Water Pollution Prevention Program (www.flowstobay.org). Following review and approval by City staff, the property owner shall have the Maintenance Agreement recorded prior to building occupancy approval. The Maintenance Agreement shall be made a part of any CC&Rs recorded for the property and shall include the following statements:

- The property owner shall be responsible for conducting all servicing and maintenance as described and required by the approved Maintenance Plan(s). Maintenance of all site design and treatment control measures shall be the owner's responsibility.
- Site access shall be granted to representatives of the City, the San Mateo County Mosquito and Vector Control District, and the Water Board, at any time, for the sole purpose of performing operation and maintenance inspections of the installed stormwater treatment systems.

Implementation of COA 2.7 requires the project sponsor to submit a Stormwater Control Plan (SWCP) to demonstrate compliance with the San Mateo Countywide Water Pollution Prevention Program. Implementation of COA 5.9.3 requires the project to comply with Provision C.3 of the MRP. Implementation of COA 8.13 requires specific plants for bioretention areas or swales that are drought tolerant, inundation tolerant, and require minimal maintenance. Implementation of COA 10.9 requires a Maintenance Agreement for stormwater treatment measures and hydromodification management controls.

Compliance with the requirements of the MRP and with the City's COAs would ensure that water quality impacts during operation of the proposed project would be less than significant.

- b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? (Less-Than-Significant Impact)*

Temporary dewatering from excavations could be necessary during construction. Construction-related dewatering would be temporary and limited to the area of excavations on the project site and would not substantially contribute to depletion of groundwater supplies.

The project would result in an increase in impervious surfaces on the project site compared to the existing condition (from about 76,200 square feet to 79,250 square feet). However, the project site is underlain by Hydrologic Group C soils, which have moderately high runoff potential and water transmission through the soil is relatively restricted.^{54,55} Therefore, these soils would not allow substantial infiltration of stormwater and associated aquifer recharge to occur. Furthermore, groundwater on site would not be used during the operation phase of the project. However, the overall stormwater flow rate would slightly decrease due to the detention in the C.3 stormwater treatment measures (bioretention areas and flow through planters). The bioretention area and flow through planters slow down the flow rate of stormwater runoff when discharging to the existing public system. Therefore, the potential for the project to impact groundwater supplies or groundwater recharge would be less than significant.

- c. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. Result in substantial erosion or siltation on- or off-site; ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. Impede or redirect flood flows? (Less-Than-Significant Impact)*

Erosion or Siltation. Construction activities would involve excavation and grading, which would temporarily alter drainage patterns and expose soil to potential erosion. As described under Section 3.10.a above, compliance with the Construction General Permit and the City's COAs would ensure that erosion of exposed soil and sedimentation of receiving waters or the sewer system would be minimized to the extent feasible during construction of the proposed project.

During operation of the project, the site and surrounding areas would be covered by buildings, pavement, and landscaped areas, with no ongoing soil exposure or disturbance that could result in erosion and siltation. Because the project site is in a low-gradient area and stormwater is conveyed from the project site to the Bay via underground storm drainpipes, stormwater runoff from the project site would not cause erosion in the downstream drainage courses. Therefore, operation of

⁵⁴ Natural Resources Conservation Service. 2021. Web Soil Survey, USDA Mapping Website. Website: websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed June 16, 2021).

⁵⁵ Natural Resources Conservation Service. 2007. *Part 630 Hydrology National Engineering Handbook, Chapter 7, Hydrologic Soil Groups*. May.

the project would have a less-than-significant impact on erosion or siltation associated with changing drainage patterns.

Flooding and Local Stormwater System Drainage Capacity. Implementation of the proposed project would involve placement of new impervious surfaces on the project site. Without proper design, the placement of new impervious surfaces could result in increased runoff volumes and rates that could exceed the capacity of the existing storm drain systems and result in localized flooding. The proposed project would be required to comply with the following COAs to ensure that this impact would be less than significant.

COA 5.9.1: Prior to issuance of a building permit, the improvement plans shall include the design of stormwater improvements in accordance with the City's Standard Details/Specifications and to the satisfaction of the Engineering Division. Stormwater improvements items of construction should include at least the following:

- Surface and subsurface storm drain facilities;
- Manholes with manhole frames and covers;
- Catch basins and laterals;
- Construct all catch basins as silt detention basins; and
- Together with appurtenances, to any or all of the above.

COA 5.9.2: Prior to issuance of a building permit, a complete storm drainage study of the proposed development shall be prepared by a registered civil engineer and submitted as part of the improvement plans package. Drainage facilities shall be designed in accordance with accepted engineering principles and be approved by the Engineering Division. The hydrology/hydraulic analysis shall include the following:

- The amount of runoff, and existing and proposed drainage structure capacities.
- Verification that the existing storm drain system is adequately sized to handle the run-off from the project.
- Conformance with the City's Drainage Design Criteria/Standards available on the City's website: www.fostercity.org/publicworks/page/city-standard-design-criteria
- Calculations and plans showing hydraulic gradelines.
- Evidence that the system is capable of handling a 25-year storm with the hydraulic grade line at least one foot below every grate.
- No overloading of the existing system will be permitted. All needed improvements shall be installed by the sponsors at sponsors' sole cost.

COA 5.9.4: Prior to issuance of a building permit, should the City determine that the City’s storm drain system or storm drain pumping capacity requires expansion or modification as a result of the sponsors’ development, the sponsors shall pay for all necessary improvement costs. The timing and amount of payment shall be as determined by the City.

Implementation of COA 5.9.1 requires the stormwater system to be capable of handling a 25-year storm and the drainage facilities to be designed in accordance with accepted engineering principles and conform to the Foster City Drainage Design Criteria. Implementation of COA 5.9.2 requires that a complete storm drainage study be approved by the City’s Engineering Division, which ensures no overloading of the existing system. This COA also requires a hydrology/hydraulic analysis to be completed to verify the existing off-site storm drainage system is adequately sized to handle the runoff from the project. Implementation of COA 5.9.4 requires the sponsor to pay for all necessary improvement costs if the City determines that the City’s storm drain system or storm drain pumping capacity requires expansion or modification as a result of the sponsor’s proposed development.

Compliance with the City’s COAs would ensure that the potential impacts related to on-site and off-site flooding and exceeding the local stormwater system drainage capacity as a result of changes in drainage patterns would be less than significant.

Flood Flows. The project site is designated as Zone X “Area with Reduced Flood Risk due to Levee” on Flood Insurance Rate Maps (FIRMs) published by the Federal Emergency Management Agency (FEMA).⁵⁶ However, FEMA has found that 85 percent of the Foster City’s levee system does not meet FEMA requirements to provide the protection from the 1-percent annual chance (i.e., 100-year) flood.⁵⁷ FEMA granted Foster City a temporary “seclusion mapping” designation in 2015 to remain classified as Zone X with reduced flood risk due to levee. To address the deficiencies of the levee, Foster City has embarked on the Foster City Levee Protection Improvements Project (Foster City Levee Project) to provide flood protection and retain FEMA accreditation for its existing levee system. The Foster City Levee Project has gone through CEQA review and the EIR was certified in May 2017. Construction of the Foster City Levee Project started in October 2020. According to the most recent schedule that was updated February 2021, construction of the Foster City Levee Project is anticipated to be completed in January 2024.⁵⁸ Once the Foster City Levee Project is completed, the levee is anticipated to provide the City protection from the 100-year flood. As a result, the project is expected to remain in an area of reduced flood risk due to the upgraded levee and impacts associated with impeding or redirecting flood flows would be less than significant.

Dam failure could also result in downstream flooding. Foster City is located within the inundation area of the Lower Crystal Springs Dam (LCSD).⁵⁹ However, the LCSD is within jurisdiction of the State of California and the condition assessment rating is satisfactory, indicating no existing or potential

⁵⁶ Federal Emergency Management Agency. 2019. Flood Insurance Rate Map (FIRM), San Mateo County, California and Incorporated Areas, Map Number 06081C0167G, revised April 5.

⁵⁷ Foster City, City of. 2021. Public Works, Levee System. Website: www.fostercity.org/publicworks/page/levee-system (accessed June 2021).

⁵⁸ Foster City, City of. 2021. Levee Improvements Project. Website: www.fostercitylevee.org/ (accessed June 2021).

⁵⁹ Foster City, City of. 2016. *Foster City General Plan*. February 1.

dam safety deficiencies are recognized.⁶⁰ In addition, a risk evaluation from 2010 indicated that the potential for dam failure of an 8.3-magnitude earthquake at the LCSD would be low.⁶¹ Furthermore, if a failure were to occur, water would flow down San Mateo Creek, spread out over portions of San Mateo, and flow into the Marina Lagoon without reaching Foster City. The City of San Mateo's Marina Lagoon Pump Station at the northern end of the Marina Lagoon is capable of moving 750,000 gallons of water per minute out of the lagoon and into San Francisco Bay. The Foster City Public Works Department estimates that a failure of the LCSD would result in a maximum flood height of about 2 feet at the county fairgrounds in the city of San Mateo, located approximately 1 mile west of Foster City. This flood height would be below the crest height (6 feet) of a levee along the Marina Lagoon in Foster City; it is therefore highly improbable that failure of the LCSD would cause inundation of Foster City.⁶² Thus, there would be no impact.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation? (Less-Than-Significant Impact)

Seiches are not considered a hazard in the Bay based on the natural oscillations of the Bay.⁶³ Based on a map prepared by the California Geological Survey, the project site is not designated as a tsunami hazard area.⁶⁴ As previously discussed, the Foster City Levee Protection Improvements Project would protect the project from the 100-year flood. However, the project site could be inundated by extreme high tides or as a result of sea level rise.

During construction, the project would be required to comply with State and local regulations, as well as COA 2.17, which would ensure that hazardous materials used during construction are properly managed and stored to protect receiving water quality. Therefore, the potential impact related to the release of pollutants during construction as a result of inundation by flood hazard, extreme high tides, or sea level rise would be less than significant.

During project operation, urban pollutants associated with the proposed land uses would include oils, fuels, and metals associated with motor vehicle traffic; fertilizers and pesticides used to maintain landscaped areas; and trash generated by new site occupants. The pollutants that flood waters would encounter on the project site would be similar to the urban pollutants found in the streets and buildings of the urban area surrounding the project site. Even without the occurrence of flooding, such pollutants are carried to the Bay by stormwater runoff from the project site and its vicinity during any storm event large enough to generate overland flows and flows to storm drains. The levels of urban pollutants occurring on the project site would be minimized through compliance with the MRP requirements, as well as applicable COAs (COAs 2.7, 5.9.3, 8.13, and 10.9). For these reasons, the potential for the release of pollutants from the project site to impact the Bay during

⁶⁰ California Department of Water Resources, Division of Safety of Dams. 2020. Dams Within Jurisdiction of the State of California. September.

⁶¹ Foster City, City of. 2016. *Foster City General Plan*. February 1.

⁶² Ibid.

⁶³ Borrero, J., L. Dengler, B. Uslu, and C. Synolakis. 2006. *Numerical Modeling of Tsunami Effects at Marine Oil Terminals in San Francisco Bay*. Report prepared for Marine Facilities Division of the California State Lands Commission. June 8.

⁶⁴ California Geological Survey. 2021. Tsunami Hazard Area Map, County of San Mateo. March 23.

inundation of the site by flood hazard, extreme high tides, or sea level rise would be less than significant.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (Less-Than-Significant Impact)

There is currently no approved groundwater management plan for the Santa Clara Valley Groundwater Basin, San Mateo Plain Subbasin, and therefore the project would not conflict with a groundwater management plan.⁶⁵ The Basin Plan, which is the Water Quality Control Plan that addresses water quality issues in the region, is the master policy document that establishes the water quality objectives and strategies needed to protect designated beneficial water uses in the San Francisco Bay region.⁶⁶ The State Water Board and San Francisco Bay Regional Water Quality Control Board ensure compliance with (and initiate enforcement action when necessary) the water quality goals and objectives of the Basin Plan through the issuance of NPDES permits. As described above, the project's compliance with the Construction General Permit and MRP requirements is additionally enforced through the implementation of the City's COAs. Compliance with these permits would ensure that the project would not have the potential to conflict with the Basin Plan. Therefore, this impact would be less than significant.

⁶⁵ California Department of Water Resources. 2021. Non-SGMA Groundwater Management. Website: [water.ca.gov/Programs/Groundwater-Management/Non-SGMA-Groundwater-Management](https://www.water.ca.gov/Programs/Groundwater-Management/Non-SGMA-Groundwater-Management) (accessed June 2021).

⁶⁶ San Francisco Bay Regional Water Quality Control Board. 2017. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*. Incorporating all amendments as of May 4.

3.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. through b. (Potentially Significant Impact)

The proposed project would result in the development of the site with an R&D office use and associated improvements. To allow development of the proposed project, a General Development Plan Amendment and a Use Permit would be required. Therefore, the proposed project could result in a conflict with policies and regulations in the existing General Plan and Zoning Ordinance that were adopted for the purposes of avoiding or mitigating an environmental effect. Therefore, the criteria identified above for topics 3.11.a through 3.11.b will be evaluated in the EIR.

3.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Would the project 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? (No Impact)

The California Geological Survey has determined that the City does not contain any significant mineral deposits.⁶⁷ Therefore, there are no known mineral resources within or in the vicinity of the project site. The proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State. Therefore, the proposed project would have no impact.

b. Would the project 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? (No Impact)

Refer to Section 3.12.a, above. The proposed project would not result in the loss of availability of any known locally-important mineral resource recovery sites. Therefore, the proposed project would have no impact.

⁶⁷ California Geological Survey. 2018. California’s Non-Fuel Mineral Production. Website: www.conservation.ca.gov/cgs/minerals/mineral-production (accessed June 2021).

3.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. through c. (Potentially Significant Impact)

The proposed project could result in the generation of a substantial temporary increase in ambient noise levels as a result of construction activities on the project site. In addition, construction of the proposed project could result in the generation of excessive groundborne vibration at adjacent properties. The project would also increase vehicle trips within the vicinity, which could in turn result in an increase in the ambient noise environment. Therefore, the criteria identified above for topics 3.13.a through 3.13.c, including operation period noise impacts will be evaluated in the EIR.

3.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (Less-Than-Significant Impact)

The proposed project does not include housing, and therefore would not directly induce population growth on the project site through the introduction of new residents on the site. In addition, the project site is located within an urban area and is currently developed. Introducing new R&D and office uses to an infill site would not result in an extension of infrastructure beyond that which is needed to serve the proposed project or expand roadway capacity within the site’s vicinity.

As previously described, the proposed project would result in the addition of approximately 213 new employees on the project site. New job opportunities in the City could cause future employees to move to Foster City solely for reasons of employment. In 2018, the year for which the most recent data is available, an estimated 7.9 percent of the employed people in Foster City also lived within the city, while the other 92.1 percent lived elsewhere in the Bay Area.⁶⁸ Consistent with this ratio, the proposed project would result in approximately 17 employees that could live in Foster City. Assuming that these employees would not be existing Foster City residents, the proposed project could potentially increase demand for housing in Foster City by 17 units. However, this determination is likely an overestimate, as new jobs created would reasonably be expected to attract existing City residents due to lifestyle advantages and shortened commutes. Additionally, employees would likely commute from various communities throughout the Bay Area due to the proximity of SR 92 and US 101. Furthermore, with a total construction duration of approximately 17 months, it is unlikely that construction workers would relocate to Foster City due to this individual project. Therefore, the proposed project would not directly or indirectly induce substantial population growth on the site or in the surrounding area through the increase in employment on the site, and this impact would be less than significant.

⁶⁸ United States Census Bureau, Center for Economic Studies. 2018. OnTheMap: Inflow/Outflow Analysis for Foster City. Website: onthemap.ces.census.gov (accessed June 2021).

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (No Impact)

As previously discussed, the project site is currently occupied by a vacant commercial building. Therefore, demolition of this structure would not displace any people or housing, and there would be no impact.

3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- i. Fire protection?*
- ii. Police protection? (Potentially Significant Impact)*

As described previously, it is anticipated that the proposed project would result in approximately 213 new employees on the project site. This increase in daytime population would result in an increased demand for fire and police services in the City. In addition, the proposed project would result in a change in use on the project site from a restaurant use to office and laboratory. As discussed previously, the laboratory use would require the use and transport of potentially hazardous materials, and therefore could result in an increased need for emergency services resulting from potential accidents. Therefore, the criteria identified above for topics 3.15.a.i through 3.15.a.ii will be evaluated in the EIR.

- iii. Schools?*
- iv. Parks?*
- v. Other public facilities? (Less-Than-Significant Impact)*

Schools. The San Mateo-Foster City School District (SMFCSD) operates 21 schools, including 15 public elementary schools (grades K-5), three public middle schools (grades 6-8), and three public K-8 schools.⁶⁹ The San Mateo Union High School District (SMUHSD) operates seven high schools, including Hillsdale High School and San Mateo High School, which students within Foster City would attend. The proposed project does not include any residential uses, and would not directly affect

⁶⁹ San Mateo-Foster City School District. 2021. District Profile. Website: www.smfcsd.net/en/about-smfcsd/about-smfcsd.html (accessed June 2021).

student population. As previously discussed in Section 3.14, a fraction of employees may move to Foster City solely for employment, but this growth would only result in an incremental increase in student population, and may be spread amongst the whole school district, depending upon place of residence.

Senate Bill 50 (SB50), which revised the existing limitation on developer fees for school facilities, was enacted as urgency legislation that became effective on November 4, 1998, as a result of the California voters approving a bond measure (Proposition 1A). SB50 established a 1998 base amount of allowable developer fees (Level One fee) for residential construction (subject to adjustment) and prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess or in addition to those provided in the statute.

Projects located in Foster City pay a combined school impact fee to both the SMFCSD and SMUHSD. As of July 2021, a school impact fee for new commercial space is \$0.66 per square foot. The proposed project would be required to pay this fee. The SMFCSD and SMUHSD are responsible for implementing the specific methods for mitigating school impacts under the Government Code. These fees would be directed towards maintaining adequate service levels, which would ensure that any impact to schools that could result from the proposed project would be offset by development fees, and in effect, reduce potential impacts to a less-than-significant level.

Parks. The closest park to the project site is the small VPCA park immediately to the south. This park includes a walking path, small plaza with benches, and landscaped drainage areas and a small lawn. A number of City-owned parks are located within the vicinity of the project site, including Leo J. Ryan Park, Erckenbrack Park, Gull Park, Killdeer Park, Boat Park, Catamaran Park, Edgewater Park, Mariners Island Park, and Baywinds Park. Additionally, a portion of the San Francisco Bay Trail runs along the shoreline of the San Francisco Bay north of the project site.

Development of the proposed project could increase the use of these parks as well as other parks within the City and within the region as project employees and visitors may access these facilities. However, this increase is expected to be incremental due to the absence of residential uses as part of the proposed project and is not expected to adversely affect the physical conditions of local and regional open space areas or recreational facilities, or require the provision of new parks or facilities in order to meet established service goals. Therefore, although the proposed project would be expected to increase use at surrounding parks, particularly the adjacent VPCA park as employees may use this area during their breaks, this increase is not expected to require the need for new or physically altered recreational facilities. Further, the proposed project includes on-site open space that would also be utilized by employees, further off-setting the small increase in use of nearby parks. Although access to a small portion of the VPCA park could be temporarily obstructed during project construction, the majority of the park would remain open and full access would be restored after project completion. Therefore, this impact would be less than significant.

Other Public Facilities. Development of the project is unlikely to increase the demand for other public services, including libraries, community centers, and public health care facilities, because no direct population growth would occur. Therefore, the proposed project is not expected to substantially increase the usage of these facilities, such that new facilities would be needed to maintain service standards and this impact would be less than significant.

3.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (Less-Than-Significant Impact)

As discussed in Section 3.15, project employees and visitors to the project site would be expected to use local parks and community facilities in the vicinity as well as regional recreational facilities. Although new employees and visitors associated with the proposed project could incrementally increase the use of these facilities, this minor increase in use is not expected to result in substantial physical deterioration of local parks, trails, and community centers and this impact would be less than significant.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (No Impact)

The proposed project would consist of the redevelopment of the project site with R&D and office uses. The proposed project does not include or require the construction or expansion of existing public recreational facilities. Therefore, development of the proposed project and associated recreational opportunities for use by project occupants would not result in additional environmental effects beyond those described in this document.

3.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. through d. (Potentially Significant Impact)

The proposed project could result in an increase in vehicular traffic that could in turn result in a conflict with a program, plan, ordinance, or policy addressing the circulation system. In addition, the proposed project would result in changes to site access and circulation, and therefore could increase hazards due to geometric design features or inadequate emergency access. Therefore, the criteria identified above for topics 3.17.a through 3.17.d will be evaluated in the EIR.

A transportation analysis will be prepared for the proposed project and will be included in the EIR. The EIR is currently anticipated to include an analysis of four intersections, as follows:

1. Chess Drive/SR 92 Westbound Ramps
2. Chess Drive/Foster City Boulevard
3. Metro Center Boulevard/Shell Boulevard
4. Metro Center Boulevard/SR 92 Eastbound Ramps

The vehicle miles traveled (VMT) generated by the proposed project will be estimated to compare with regional VMT. The City has not adopted a VMT threshold, and therefore a project-specific threshold will be established. The transportation analysis will also consider impacts related to vehicular, bicycle, pedestrian, and transit facilities as well as an evaluation of design hazards or potentially incompatible uses.

3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or*
 - ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

AB 52 provides for consultation between lead agencies and Native American tribal organizations during the CEQA process. Prior to the release of an Environmental Impact Report or Negative Declaration/Mitigated Negative Declaration for public review, a lead agency must provide the opportunity to consult with local tribes.

A request form describing the project and map depicting the project site was sent to the NAHC in West Sacramento requesting a list of tribes eligible to consult with the City, pursuant to Public Resources Code section 21080.3.1. On July 6, 2021, the NAHC responded in a letter with a list of tribal contacts. The City sent letters to these individuals via certified mail on July 12, 2021, notifying

them of their opportunity to consult for this project. No requests for consultation have been received to date. The consultation process and its conclusion will be further discussed in the EIR.

3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. through e. (Potentially Significant Impact)

The project site is currently served by water, wastewater, solid waste disposal, and other utilities. The proposed project would result in an increase in the demand for each of these services and could require the installation of new infrastructure both on and off the project site. Therefore, the criteria identified above for topics 3.19.a through 3.19.e will be evaluated in the EIR. In addition, a Water Supply Assessment will be prepared and will be discussed in the EIR.

3.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan? (Less-Than-Significant Impact)

The project site and adjacent areas are not located in a Very High Fire Hazard Severity Zone and the project site is not located within any State responsibility areas (SRA) for fire service.⁷⁰ Therefore, the proposed project would not impair the implementation of, or physically interfere with, any adopted emergency response plan. Therefore, this impact would be less than significant.

b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? (Less-Than-Significant Impact)

Refer to Section 3.20.a. Additionally, as noted in Section 1.0, Project Information, the project is generally level, and is bound by existing development on all sides. Therefore, the proposed project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and this impact would be less than significant.

⁷⁰ Foster City, City of. 2016. *Foster City General Plan*. February 1.

- c. *Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? (Less-Than-Significant Impact)*

Refer to Section 3.20.a. The proposed project is not located within an SRA for fire service and is not within a very high fire hazard severity zone. Therefore, the proposed project would not require the installation or maintenance of associated infrastructure, and this impact would be less than significant.

- d. *Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? (Less-Than-Significant Impact)*

Refer to Section 3.20.a and 3.20.b. The project site is generally level and is not located within an SRA for fire service or a very high fire hazard severity zone. Therefore, the proposed project would not expose people or structures to significant risks as a result of post-fire slope instability or drainage and runoff changes.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? (Less-Than-Significant Impact)*

Implementation of COAs 9.10, 9.11, and 9.12 would ensure that potential impacts to historic and archaeological resources that could be uncovered during construction activities would be reduced to a less-than-significant level. Implementation of Mitigation Measures BIO-1 through BIO-2 and COA 8.12 would ensure that potential impacts related to special status species and nesting birds would be reduced to a less-than-significant level. Therefore, with the incorporation of mitigation measures, development of the proposed Project would not: (1) degrade the quality of the environment; (2) substantially reduce the habitat of a fish or wildlife species; (3) cause a fish or wildlife species population to drop below self-sustaining levels; (4) threaten to eliminate a plant or animal community; (5) reduce the number or restrict the range of a rare or endangered plant or animal; or (6) eliminate important examples of the major periods of California history.

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)? (Potentially Significant Impact)*

As discussed throughout this Initial Study, the proposed project could have potentially significant impacts related to aesthetics, air quality, greenhouse gas emissions, hazards and hazardous

materials, land use and planning, noise, public services (fire and police services), transportation, and utilities and service systems, and these topics, along with potential cumulative effects, will be evaluated in an EIR.

CEQA defines cumulative impacts as “two or more individual effects which, when considered together, are considerable, or which can compound to increase other environmental impacts.” Section 15130 of the CEQA Guidelines requires evaluation of potential environmental impacts when the project’s incremental effect is cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of “reasonably foreseeable probable future” projects, per CEQA Section 15355. Cumulative impacts can result from a combination of the proposed project together with other closely related projects that cause an adverse change in the environment. Cumulative impacts can result from individually minor but collectively significant projects taking place over time.

For the topics “scoped out” in this Initial Study (i.e., not further analyzed in the EIR), the proposed project’s impacts would be individually limited and not cumulatively considerable, because the impacts are either temporary in nature (i.e., limited to the construction period) or limited to the project site (i.e., accidental discovery). Additionally, for each of the topics not analyzed in the EIR, the proposed project would have no impacts or less-than-significant impacts, and therefore would not substantially contribute to any potential cumulative impacts for these topics.

When future development proposals are considered by the City, these proposals would undergo environmental review pursuant to CEQA, and when necessary, mitigation measures would be adopted as appropriate. In most cases, this environmental review and compliance with project conditions of approval, relevant policies and mitigation measures, and the General Plan, and compliance with applicable regulations would ensure that significant impacts would be avoided or otherwise mitigated to less-than-significant levels.

Implementation of these measures would ensure that the impacts of the project and other projects within the vicinity would be below established thresholds of significance and that these impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (No Impact)

The proposed project would not result in any environmental effects that would cause substantial direct or indirect adverse effects on human beings and there would be no impact.

4.0 LIST OF PREPARERS

City of Foster City

610 Foster City Boulevard
Foster City, CA 94404
Sofia Mangalam, Planning Manager

LSA Associates, Inc.

157 Park Place
Pt. Richmond, CA 94801
Theresa Wallace, AICP, Principal in Charge/Project Manager
Matthew Wiswell, AICP, Planner/Assistant Project Manager
Dan Sidle, Associate/Senior Biologist
Patty Linder, Graphics and Production
Charis Hanshaw, Document Management
Ameara Martinez, Document Management

2491 Alluvial Avenue, PMB 626
Clovis, CA 93611
Amy Fischer, Principal, Air Quality/Greenhouse Gas Emissions/Noise Specialist
Cara Carlucci, Senior Air Quality/Noise Specialist

Baseline Environmental Consulting

5900 Hollis Street, Suite D
Emeryville, CA 94608
Bruce Abelli-Amen, P.G., C. Hg, Principal, Certified Hydrogeologist
Patrick Sutton, P.E., Environmental Engineer
Mengzhu Luo, Environmental Engineer

5.0 REFERENCES

Borrero, J., L. Dengler, B. Uslu, and C. Synolakis. 2006. *Numerical Modeling of Tsunami Effects at Marine Oil Terminals in San Francisco Bay*. Report prepared for Marine Facilities Division of the California State Lands Commission. June 8.

California Department of Conservation. 2016. Division of Land Use Resource Protection. California Important Farmland Finder. Website: maps.conservation.ca.gov/dlrp/ciff (accessed June 2021).

California Department of Conservation. 2019. Williamson Act Contracts. Website: www.conservation.ca.gov/dlrp/wa/Pages/contracts.aspx (accessed June 2021).

California Department of Fish and Wildlife. 2021. California Natural Diversity Database. June 8.

California Department of Water Resources, Division of Safety of Dams. 2020. Dams Within Jurisdiction of the State of California. September.

California Department of Water Resources. 2021. Non-SGMA Groundwater Management. Website: water.ca.gov/Programs/Groundwater-Management/Non-SGMA-Groundwater-Management (accessed June 2021).

California Energy Commission. 2017. California Gasoline Data, Facts, and Statistics. Website: www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics (accessed May 2021).

California Energy Commission. 2019. Notice of Request for Public Comments on the Draft Scoping Order for the 2019 Integrated Energy Policy Report. Docket No. 19-IEPR-01.

California Energy Commission. 2021. Energy Consumption Data Management Service. Electricity Consumption by County. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed May 2021).

California Energy Commission. 2021. Energy Consumption Data Management Service. Gas Consumption by County. Website: www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed May 2021).

California Geological Survey. n.d. Earthquake Zones of Required Investigation, San Mateo Quadrangle. Earthquake Fault Zones released July 1, 1974. Seismic Hazard Zones released January 11, 2018.

California Geological Survey. 2018. California's Non-Fuel Mineral Production. Website: www.conservation.ca.gov/cgs/minerals/mineral-production (accessed June 2021).

- California Geological Survey. 2021. Tsunami Hazard Area Map, County of San Mateo. March 23.
- Federal Emergency Management Agency. 2019. Flood Insurance Rate Map (FIRM), San Mateo County, California and Incorporated Areas, Map Number 06081C0167G, revised April 5.
- Federal Highway Administration. 1977. An evaluation of expedient methodology for identification of potentially expansive soils. Report No. FHWA-RD-77-94. June.
- Foster City, City of. 2016. *Foster City General Plan*. February 1.
- Foster City, City of. 2021. *Vintage Park Design Guidelines*. January 22.
- Foster City, City of. 2019. *Green Infrastructure Plan*. August.
- Foster City, City of. 2021. Foster City Municipal Code (as amended). Title 17. January 19.
- Foster City, City of. 2021. Levee Improvements Project. Website: www.fostercitylevee.org/ (accessed June 2021).
- Foster City, City of. 2021. Public Works, Levee System. Website: www.fostercity.org/publicworks/page/levee-system (accessed June 2021).
- Foster City, City of/Estero Municipal Improvement District. 2007. *Environmental Review Guidelines*. October 1.
- Helley, E.J. and K.R. LaJoie. 1979. Flatland deposits of the San Francisco Bay Region, California-their geology and engineering properties, and their importance to comprehensive planning., USGS Professional Paper 943.
- HortScience/Bartlett Consulting. 2021. *Draft Preliminary Arborist Report, 388 Vintage Park Dr., Foster City, CA*. Prepared for Steelwave, San Francisco, CA. March.
- Natural Resources Conservation Service. 2007. *Part 630 Hydrology National Engineering Handbook, Chapter 7, Hydrologic Soil Groups*. May.
- Natural Resources Conservation Service. 2021. Web Soil Survey, USDA Mapping Website. Website: websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed June 16, 2021).
- Oakland Museum of California. n.d. Seal Slough Watershed. Website: explore.museumca.org/creeks/1510-RescSeal.html (accessed June 2021).
- Rockridge Geotechnical. 2021a. *388 Vintage Parkway Geotechnical Consultation regarding H-piles*. June 30.
- Rockridge Geotechnical. 2021b. *Geotechnical Investigation and Ground Motion Analysis Report, Proposed Life Science Building, 388 Vintage Park Drive, Foster City, California*. April 13.

-
- San Francisco Bay Regional Water Quality Control Board. 2017. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*. Incorporating all amendments as of May 4.
- San Francisco Bay Regional Water Quality Control Board. 2019. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*. Incorporating all amendments as of November 5.
- San Mateo-Foster City School District. 2021. District Profile. Website: www.smfcsd.net/en/about-smfcsd/about-smfcsd.html (accessed June 2021).
- State Water Board. 2017. *Final 2014 and 2016 California Integrated Report* (Clean Water Act Section 303(d) List/305(b) Report). Website: www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16state_ir_reports/category5_report.shtml (accessed June 2021).
- State Water Resources Control Board Division of Water Quality. 2009. Construction General Permit Fact Sheet. 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ.
- Tubbs, Curtis, Project Construction Contractor. 2021. Personal communication with Peter Banzhaf, Project Sponsor. June 30.
- U.S. Department of Transportation. "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Website: www.bts.dot.gov/bts/bts/content/average-fuel-efficiency-us-light-duty-vehicles (accessed May 2021).
- United States Census Bureau, Center for Economic Studies. 2018. OnTheMap: Inflow/Outflow Analysis for Foster City. Website: onthemap.ces.census.gov (accessed June 2021).
- United States Geological Survey. 2015. UCERF3: A New Earthquake Forecast for California's Complex Fault System, USGS Fact Sheet 2015-3009. March. Available online at: pubs.usgs.gov/fs/2015/3009/pdf/fs2015-3009.pdf (accessed June 2021).
- University of California Museum of Paleontology. 2021. Collections Database, Locality Search. Website: ucmpdb.berkeley.edu/loc.html (accessed July 2021).

This page intentionally left blank

APPENDIX A

CALEEMOD OUTPUT DATA

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**388 Vintage Park Drive Project
Bay Area AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	60.00	1000sqft	2.20	60,000.00	0
Enclosed Parking Structure	198.00	Space	0.00	35,931.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The proposed project would include a 95,931-square-foot, four-story (68-foot-tall) building including life science office use and a ground-level parking garage.

Construction Phase - construction of the proposed project is anticipated to begin in March 2022, last approximately 17 months, and is anticipated to be fully operational late 2023.

Demolition - Approximately 180 tons of demolition waste would be generated by the proposed project.

Vehicle Trips - Default trip generation.

Stationary Sources - Emergency Generators and Fire Pumps - Assuming a 250 kW diesel generator that runs an hour a week for testing.

Construction Off-road Equipment Mitigation - Assuming compliance with BAAQMD Basic Construction Mitigation Measures and use of Tier 2 construction equipment.

Water Mitigation - Assuming use of low flow water fixtures.

Waste Mitigation - Consistent with the CalRecycle Waste Diversion and Recycling Mandate which will reduce solid waste production by 75 percent.

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	220.00	300.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	6.00	20.00
tblConstructionPhase	NumDays	3.00	20.00
tblConstructionPhase	PhaseEndDate	3/16/2023	9/1/2023
tblConstructionPhase	PhaseEndDate	2/16/2023	8/4/2023
tblConstructionPhase	PhaseEndDate	4/1/2022	4/15/2022
tblConstructionPhase	PhaseEndDate	4/14/2022	6/10/2022
tblConstructionPhase	PhaseEndDate	3/2/2023	8/18/2023
tblConstructionPhase	PhaseEndDate	4/6/2022	5/13/2022
tblConstructionPhase	PhaseStartDate	3/3/2023	8/21/2023
tblConstructionPhase	PhaseStartDate	4/15/2022	6/13/2022
tblConstructionPhase	PhaseStartDate	4/7/2022	5/16/2022
tblConstructionPhase	PhaseStartDate	2/17/2023	8/7/2023
tblConstructionPhase	PhaseStartDate	4/2/2022	4/18/2022
tblGrading	AcresOfGrading	20.00	6.00
tblGrading	AcresOfGrading	30.00	4.50
tblLandUse	LandUseSquareFeet	79,200.00	35,931.00
tblLandUse	LotAcreage	1.38	2.20
tblLandUse	LotAcreage	1.78	0.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	335.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	52.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00

2.0 Emissions Summary

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1994	1.7066	1.5299	3.0700e-003	0.0979	0.0777	0.1756	0.0422	0.0736	0.1158	0.0000	264.3377	264.3377	0.0510	4.1500e-003	266.8508
2023	0.4669	1.1654	1.2472	2.4800e-003	0.0298	0.0505	0.0803	8.1200e-003	0.0483	0.0565	0.0000	211.4789	211.4789	0.0340	4.0900e-003	213.5461
Maximum	0.4669	1.7066	1.5299	3.0700e-003	0.0979	0.0777	0.1756	0.0422	0.0736	0.1158	0.0000	264.3377	264.3377	0.0510	4.1500e-003	266.8508

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1052	2.2247	1.6933	3.0700e-003	0.0607	0.0807	0.1414	0.0235	0.0807	0.1042	0.0000	264.3374	264.3374	0.0510	4.1500e-003	266.8505
2023	0.4064	1.7034	1.3463	2.4800e-003	0.0298	0.0671	0.0969	8.1200e-003	0.0671	0.0752	0.0000	211.4787	211.4787	0.0340	4.0900e-003	213.5459
Maximum	0.4064	2.2247	1.6933	3.0700e-003	0.0607	0.0807	0.1414	0.0235	0.0807	0.1042	0.0000	264.3374	264.3374	0.0510	4.1500e-003	266.8505

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	23.22	-36.77	-9.45	0.00	29.15	-15.31	6.89	37.15	-21.12	-4.10	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-7-2022	6-6-2022	0.5686	0.6579
2	6-7-2022	9-6-2022	0.5645	0.7041
3	9-7-2022	12-6-2022	0.5708	0.7181
4	12-7-2022	3-6-2023	0.5340	0.7057
5	3-7-2023	6-6-2023	0.5323	0.7181
6	6-7-2023	9-6-2023	0.6631	0.8159
		Highest	0.6631	0.8159

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2689	2.0000e-005	2.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6100e-003	4.6100e-003	1.0000e-005	0.0000	4.9100e-003
Energy	7.9500e-003	0.0723	0.0607	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	137.3695	137.3695	0.0110	2.5900e-003	138.4174
Mobile	0.2305	0.2678	2.1840	4.5100e-003	0.4696	3.3600e-003	0.4729	0.1255	3.1300e-003	0.1286	0.0000	419.9358	419.9358	0.0277	0.0203	426.6696
Stationary	0.0143	0.0400	0.0365	7.0000e-005		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003	0.0000	6.6335	6.6335	9.3000e-004	0.0000	6.6567
Waste						0.0000	0.0000		0.0000	0.0000	0.9256	0.0000	0.9256	0.0547	0.0000	2.2932
Water						0.0000	0.0000		0.0000	0.0000	9.3595	14.7699	24.1294	0.9637	0.0230	55.0724
Total	0.5216	0.3800	2.2835	5.0100e-003	0.4696	0.0110	0.4805	0.1255	0.0107	0.1362	10.2852	578.7133	588.9985	1.0580	0.0459	629.1143

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2689	2.0000e-005	2.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6100e-003	4.6100e-003	1.0000e-005	0.0000	4.9100e-003
Energy	7.9500e-003	0.0723	0.0607	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	137.3695	137.3695	0.0110	2.5900e-003	138.4174
Mobile	0.2305	0.2678	2.1840	4.5100e-003	0.4696	3.3600e-003	0.4729	0.1255	3.1300e-003	0.1286	0.0000	419.9358	419.9358	0.0277	0.0203	426.6696
Stationary	0.0143	0.0400	0.0365	7.0000e-005		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003	0.0000	6.6335	6.6335	9.3000e-004	0.0000	6.6567
Waste						0.0000	0.0000		0.0000	0.0000	0.2314	0.0000	0.2314	0.0137	0.0000	0.5733
Water						0.0000	0.0000		0.0000	0.0000	7.4876	11.8159	19.3035	0.7710	0.0184	44.0579
Total	0.5216	0.3800	2.2835	5.0100e-003	0.4696	0.0110	0.4805	0.1255	0.0107	0.1362	7.7190	575.7593	583.4784	0.8242	0.0413	616.3799

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.95	0.51	0.94	22.09	10.03	2.02

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/7/2022	4/15/2022	5	30	
2	Site Preparation	Site Preparation	4/18/2022	5/13/2022	5	20	

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Grading	Grading	5/16/2022	6/10/2022	5	20
4	Building Construction	Building Construction	6/13/2022	8/4/2023	5	300
5	Paving	Paving	8/7/2023	8/18/2023	5	10
6	Architectural Coating	Architectural Coating	8/21/2023	9/1/2023	5	10

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 90,000; Non-Residential Outdoor: 30,000; Striped Parking Area: 2,156 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	34.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9300e-003	0.0000	1.9300e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0253	0.2493	0.2094	3.6000e-004		0.0126	0.0126		0.0117	0.0117	0.0000	31.6165	31.6165	8.0600e-003	0.0000	31.8180
Total	0.0253	0.2493	0.2094	3.6000e-004	1.9300e-003	0.0126	0.0145	2.9000e-004	0.0117	0.0120	0.0000	31.6165	31.6165	8.0600e-003	0.0000	31.8180

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.5500e-003	3.3000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.7000e-004	4.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5642	0.5642	2.0000e-005	9.0000e-005	0.5913
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.9000e-004	4.6600e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.2393	1.2393	4.0000e-005	4.0000e-005	1.2509
Total	5.8000e-004	1.9400e-003	4.9900e-003	2.0000e-005	1.6900e-003	2.0000e-005	1.7200e-003	4.5000e-004	2.0000e-005	4.8000e-004	0.0000	1.8034	1.8034	6.0000e-005	1.3000e-004	1.8421

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.7000e-004	0.0000	8.7000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.3181	0.2312	3.6000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	31.6165	31.6165	8.0600e-003	0.0000	31.8179
Total	0.0133	0.3181	0.2312	3.6000e-004	8.7000e-004	0.0108	0.0116	1.3000e-004	0.0108	0.0109	0.0000	31.6165	31.6165	8.0600e-003	0.0000	31.8179

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.5500e-003	3.3000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.7000e-004	4.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5642	0.5642	2.0000e-005	9.0000e-005	0.5913
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	3.9000e-004	4.6600e-003	1.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.2393	1.2393	4.0000e-005	4.0000e-005	1.2509
Total	5.8000e-004	1.9400e-003	4.9900e-003	2.0000e-005	1.6900e-003	2.0000e-005	1.7200e-003	4.5000e-004	2.0000e-005	4.8000e-004	0.0000	1.8034	1.8034	6.0000e-005	1.3000e-004	1.8421

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.1567	0.1006	2.5000e-004		5.9500e-003	5.9500e-003		5.4800e-003	5.4800e-003	0.0000	21.5471	21.5471	6.9700e-003	0.0000	21.7213
Total	0.0138	0.1567	0.1006	2.5000e-004	2.3900e-003	5.9500e-003	8.3400e-003	2.6000e-004	5.4800e-003	5.7400e-003	0.0000	21.5471	21.5471	6.9700e-003	0.0000	21.7213

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.9100e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5084	0.5084	2.0000e-005	1.0000e-005	0.5132
Total	2.2000e-004	1.6000e-004	1.9100e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5084	0.5084	2.0000e-005	1.0000e-005	0.5132

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0700e-003	0.0000	1.0700e-003	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6200e-003	0.2002	0.1364	2.5000e-004		4.9900e-003	4.9900e-003		4.9900e-003	4.9900e-003	0.0000	21.5470	21.5470	6.9700e-003	0.0000	21.7213
Total	6.6200e-003	0.2002	0.1364	2.5000e-004	1.0700e-003	4.9900e-003	6.0600e-003	1.2000e-004	4.9900e-003	5.1100e-003	0.0000	21.5470	21.5470	6.9700e-003	0.0000	21.7213

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.9100e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5084	0.5084	2.0000e-005	1.0000e-005	0.5132
Total	2.2000e-004	1.6000e-004	1.9100e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5084	0.5084	2.0000e-005	1.0000e-005	0.5132

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0634	0.0000	0.0634	0.0335	0.0000	0.0335	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.1698	0.0922	2.1000e-004		7.4200e-003	7.4200e-003		6.8300e-003	6.8300e-003	0.0000	18.1027	18.1027	5.8500e-003	0.0000	18.2491
Total	0.0154	0.1698	0.0922	2.1000e-004	0.0634	7.4200e-003	0.0708	0.0335	6.8300e-003	0.0403	0.0000	18.1027	18.1027	5.8500e-003	0.0000	18.2491

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.3900e-003	1.0000e-005	7.9000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6355	0.6355	2.0000e-005	2.0000e-005	0.6415
Total	2.7000e-004	2.0000e-004	2.3900e-003	1.0000e-005	7.9000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6355	0.6355	2.0000e-005	2.0000e-005	0.6415

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0285	0.0000	0.0285	0.0151	0.0000	0.0151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2600e-003	0.1811	0.1215	2.1000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	18.1027	18.1027	5.8500e-003	0.0000	18.2491
Total	6.2600e-003	0.1811	0.1215	2.1000e-004	0.0285	4.8500e-003	0.0334	0.0151	4.8500e-003	0.0199	0.0000	18.1027	18.1027	5.8500e-003	0.0000	18.2491

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.3900e-003	1.0000e-005	7.9000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6355	0.6355	2.0000e-005	2.0000e-005	0.6415
Total	2.7000e-004	2.0000e-004	2.3900e-003	1.0000e-005	7.9000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6355	0.6355	2.0000e-005	2.0000e-005	0.6415

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1345	1.0588	1.0406	1.8100e-003		0.0509	0.0509		0.0488	0.0488	0.0000	150.5681	150.5681	0.0291	0.0000	151.2943
Total	0.1345	1.0588	1.0406	1.8100e-003		0.0509	0.0509		0.0488	0.0488	0.0000	150.5681	150.5681	0.0291	0.0000	151.2943

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4800e-003	0.0648	0.0189	2.5000e-004	7.6100e-003	6.7000e-004	8.2800e-003	2.2000e-003	6.4000e-004	2.8400e-003	0.0000	23.8905	23.8905	5.2000e-004	3.5400e-003	24.9591
Worker	6.7700e-003	4.8800e-003	0.0590	1.7000e-004	0.0195	1.1000e-004	0.0196	5.1800e-003	1.0000e-004	5.2800e-003	0.0000	15.6654	15.6654	4.9000e-004	4.5000e-004	15.8123
Total	9.2500e-003	0.0697	0.0778	4.2000e-004	0.0271	7.8000e-004	0.0279	7.3800e-003	7.4000e-004	8.1200e-003	0.0000	39.5559	39.5559	1.0100e-003	3.9900e-003	40.7714

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0687	1.4534	1.1171	1.8100e-003		0.0593	0.0593		0.0593	0.0593	0.0000	150.5679	150.5679	0.0291	0.0000	151.2941
Total	0.0687	1.4534	1.1171	1.8100e-003		0.0593	0.0593		0.0593	0.0593	0.0000	150.5679	150.5679	0.0291	0.0000	151.2941

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4800e-003	0.0648	0.0189	2.5000e-004	7.6100e-003	6.7000e-004	8.2800e-003	2.2000e-003	6.4000e-004	2.8400e-003	0.0000	23.8905	23.8905	5.2000e-004	3.5400e-003	24.9591
Worker	6.7700e-003	4.8800e-003	0.0590	1.7000e-004	0.0195	1.1000e-004	0.0196	5.1800e-003	1.0000e-004	5.2800e-003	0.0000	15.6654	15.6654	4.9000e-004	4.5000e-004	15.8123
Total	9.2500e-003	0.0697	0.0778	4.2000e-004	0.0271	7.8000e-004	0.0279	7.3800e-003	7.4000e-004	8.1200e-003	0.0000	39.5559	39.5559	1.0100e-003	3.9900e-003	40.7714

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1328	1.0559	1.1016	1.9400e-003		0.0476	0.0476		0.0456	0.0456	0.0000	160.9691	160.9691	0.0304	0.0000	161.7301
Total	0.1328	1.0559	1.1016	1.9400e-003		0.0476	0.0476		0.0456	0.0456	0.0000	160.9691	160.9691	0.0304	0.0000	161.7301

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0551	0.0173	2.5000e-004	8.1400e-003	3.2000e-004	8.4600e-003	2.3500e-003	3.1000e-004	2.6600e-003	0.0000	24.4770	24.4770	5.0000e-004	3.6200e-003	25.5686
Worker	6.7400e-003	4.6200e-003	0.0584	1.8000e-004	0.0208	1.1000e-004	0.0209	5.5400e-003	1.0000e-004	5.6400e-003	0.0000	16.3185	16.3185	4.7000e-004	4.5000e-004	16.4637
Total	8.0600e-003	0.0598	0.0757	4.3000e-004	0.0290	4.3000e-004	0.0294	7.8900e-003	4.1000e-004	8.3000e-003	0.0000	40.7956	40.7956	9.7000e-004	4.0700e-003	42.0322

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0734	1.5536	1.1941	1.9400e-003		0.0634	0.0634		0.0634	0.0634	0.0000	160.9689	160.9689	0.0304	0.0000	161.7300
Total	0.0734	1.5536	1.1941	1.9400e-003		0.0634	0.0634		0.0634	0.0634	0.0000	160.9689	160.9689	0.0304	0.0000	161.7300

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0551	0.0173	2.5000e-004	8.1400e-003	3.2000e-004	8.4600e-003	2.3500e-003	3.1000e-004	2.6600e-003	0.0000	24.4770	24.4770	5.0000e-004	3.6200e-003	25.5686
Worker	6.7400e-003	4.6200e-003	0.0584	1.8000e-004	0.0208	1.1000e-004	0.0209	5.5400e-003	1.0000e-004	5.6400e-003	0.0000	16.3185	16.3185	4.7000e-004	4.5000e-004	16.4637
Total	8.0600e-003	0.0598	0.0757	4.3000e-004	0.0290	4.3000e-004	0.0294	7.8900e-003	4.1000e-004	8.3000e-003	0.0000	40.7956	40.7956	9.7000e-004	4.0700e-003	42.0322

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.4000e-003	0.0431	0.0584	9.0000e-005		2.1700e-003	2.1700e-003		2.0000e-003	2.0000e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8179

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.3000e-004	1.6600e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4645	0.4645	1.0000e-005	1.0000e-005	0.4686
Total	1.9000e-004	1.3000e-004	1.6600e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4645	0.4645	1.0000e-005	1.0000e-005	0.4686

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6700e-003	0.0781	0.0649	9.0000e-005		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.6700e-003	0.0781	0.0649	9.0000e-005		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003	0.0000	7.7564	7.7564	2.4600e-003	0.0000	7.8178

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.3000e-004	1.6600e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4645	0.4645	1.0000e-005	1.0000e-005	0.4686
Total	1.9000e-004	1.3000e-004	1.6600e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.4645	0.4645	1.0000e-005	1.0000e-005	0.4686

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3204					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	0.3213	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	7.8000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2168	0.2168	1.0000e-005	1.0000e-005	0.2187
Total	9.0000e-005	6.0000e-005	7.8000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2168	0.2168	1.0000e-005	1.0000e-005	0.2187

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3204					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7000e-004	0.0118	9.1600e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	0.3209	0.0118	9.1600e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	7.8000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2168	0.2168	1.0000e-005	1.0000e-005	0.2187
Total	9.0000e-005	6.0000e-005	7.8000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2168	0.2168	1.0000e-005	1.0000e-005	0.2187

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2305	0.2678	2.1840	4.5100e-003	0.4696	3.3600e-003	0.4729	0.1255	3.1300e-003	0.1286	0.0000	419.9358	419.9358	0.0277	0.0203	426.6696
Unmitigated	0.2305	0.2678	2.1840	4.5100e-003	0.4696	3.3600e-003	0.4729	0.1255	3.1300e-003	0.1286	0.0000	419.9358	419.9358	0.0277	0.0203	426.6696

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking Structure	0.00	0.00	0.00		
Research & Development	675.60	114.00	66.60	1,274,105	1,274,105
Total	675.60	114.00	66.60	1,274,105	1,274,105

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking Structure	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Research & Development	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	58.7006	58.7006	9.5000e-003	1.1500e-003	59.2810
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	58.7006	58.7006	9.5000e-003	1.1500e-003	59.2810
NaturalGas Mitigated	7.9500e-003	0.0723	0.0607	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	78.6689	78.6689	1.5100e-003	1.4400e-003	79.1364
NaturalGas Unmitigated	7.9500e-003	0.0723	0.0607	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	78.6689	78.6689	1.5100e-003	1.4400e-003	79.1364

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	1.4742e+006	7.9500e-003	0.0723	0.0607	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	78.6689	78.6689	1.5100e-003	1.4400e-003	79.1364
Total		7.9500e-003	0.0723	0.0607	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	78.6689	78.6689	1.5100e-003	1.4400e-003	79.1364

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	1.4742e+006	7.9500e-003	0.0723	0.0607	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	78.6689	78.6689	1.5100e-003	1.4400e-003	79.1364
Total		7.9500e-003	0.0723	0.0607	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	78.6689	78.6689	1.5100e-003	1.4400e-003	79.1364

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking Structure	188638	17.4535	2.8200e-003	3.4000e-004	17.6261
Research & Development	445800	41.2471	6.6700e-003	8.1000e-004	41.6550
Total		58.7006	9.4900e-003	1.1500e-003	59.2810

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking Structure	188638	17.4535	2.8200e-003	3.4000e-004	17.6261
Research & Development	445800	41.2471	6.6700e-003	8.1000e-004	41.6550
Total		58.7006	9.4900e-003	1.1500e-003	59.2810

6.0 Area Detail

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2689	2.0000e-005	2.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6100e-003	4.6100e-003	1.0000e-005	0.0000	4.9100e-003
Unmitigated	0.2689	2.0000e-005	2.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6100e-003	4.6100e-003	1.0000e-005	0.0000	4.9100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0320					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6100e-003	4.6100e-003	1.0000e-005	0.0000	4.9100e-003
Total	0.2689	2.0000e-005	2.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6100e-003	4.6100e-003	1.0000e-005	0.0000	4.9100e-003

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0320					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6100e-003	4.6100e-003	1.0000e-005	0.0000	4.9100e-003
Total	0.2689	2.0000e-005	2.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6100e-003	4.6100e-003	1.0000e-005	0.0000	4.9100e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.3035	0.7710	0.0184	44.0579
Unmitigated	24.1294	0.9637	0.0230	55.0724

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	29.5016 / 0	24.1294	0.9637	0.0230	55.0724
Total		24.1294	0.9637	0.0230	55.0724

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	23.6013 / 0	19.3035	0.7710	0.0184	44.0579
Total		19.3035	0.7710	0.0184	44.0579

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2314	0.0137	0.0000	0.5733
Unmitigated	0.9256	0.0547	0.0000	2.2932

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Research & Development	4.56	0.9256	0.0547	0.0000	2.2932
Total		0.9256	0.0547	0.0000	2.2932

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Research & Development	1.14	0.2314	0.0137	0.0000	0.5733
Total		0.2314	0.0137	0.0000	0.5733

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.14	52	335	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

388 Vintage Park Drive Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (300 - 600 HP)	0.0143	0.0400	0.0365	7.0000e-005		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003	0.0000	6.6335	6.6335	9.3000e-004	0.0000	6.6567
Total	0.0143	0.0400	0.0365	7.0000e-005		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003	0.0000	6.6335	6.6335	9.3000e-004	0.0000	6.6567

11.0 Vegetation



This page intentionally left blank